AMERICAN SHORTLINE RAILROAD DATABASE:

PROJECT REPORT AND 1993 DATA ANALYSIS

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Acknowledgement

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1.0 INTRODUCTION

Since 1980, over 200 new local or regional railroads have been established in the United States, mostly through the sale of light-density lines by Class I carriers. With these new additions, this sector of the railroad industry now numbers over 400 strong. Collectively, these firms operate over 40,000 miles of railroad, providing rail service to many small communities and rural areas.

In spite of the growing importance of this sector of the railroad industry, little information exists regarding its contributions and operational characteristics. There are no standard data collection and reporting systems for Class II and Class III railroads, such as those that exist for Class I carriers. The lack of an industry database creates several informational voids.

- Groups and individuals wishing to promote this sector of the industry have little data with which to describe the essential role and contribution of short-line and regional railroads to the transportation industry.

- Firms within this sector of the industry have little information with which to comparatively evaluate their financial and operating performance. In essence, they are unable to establish the performance *benchmarks* which are widely used in other industries.

- Financiers have limited information about the industry with which to establish their performance benchmark and perform financial investment analysis.

- Potential suppliers may find it difficult to assess the particular needs of this sector of the industry with respect to power, equipment, and other inputs or supplies. Thus, suppliers may be unable to specifically target needs within the industry and tailor their products accordingly.

- The lack of an industry database impedes state and federal transportation agencies in their efforts to understand the industry, and make important investment, promotional, and policy decisions. Moreover, state and federal safety analysis requires consistent railroad operational data.

North Dakota State University (NDSU), with the cooperation of the American Short-Line Railroad Association (ASLRA), and with funding and technical support provided by the Federal Railroad Administration (FRA) and The Research and Special Projects (RSPA) Division of the U.S. Department of Transportation, has completed a three-year study of American short-line railroad data systems.[1] The project consisted of three phases or stages: (1) a feasibility study, (2) initial database design, development and testing, and (3) 1993 data collection and analysis.

Phase I consisted of six major tasks.

1. Establish a project advisory committee and refine the research approach.

2. Identify, describe, and evaluate existing collection, distribution, and use of Class II and Class III railroad data.

3. Ascertain what types of data the industry desires to voluntarily report and have maintained.

4. Stratify the industry according to economic and operational characteristics and other relevant criteria.

5. Develop a list of candidate data elements that could be voluntarily reported by the industry.[2]

6. Recommend a set of data elements to be voluntarily reported on an annual basis by the various types of railroads, a private organization to maintain the data, and a method for distributing the data.

In Phase II, a prototype software system was designed, developed, and tested. The system consists of two major components: (1) a central database that supports data query,

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[1] FRA, RSPA, and NDSU provided funding support for the project. The ALSRA and individual railroad companies provided in-kind technical support, project guidance, and initial data.

[2] This task also entailed commenting on the use of candidate data items, the incremental costs of collecting and maintaining the data, beneficiaries of the data, and the types of railroads the data element is relevant to.

management and the generation of annual reports and (2) a data entry software that supports entry and transmittal of data from railroad companies to the central database.

In Phase III, 1993 data were collected from the railroad industry, using the data entry software and a paper questionnaire (which are described in later sections of the report). The data obtained from paper survey forms was entered into the prototype database and used to generate a preliminary industry profile.

2.0 PHASE I FEASIBILITY ANALYSIS

A primary objective of Phase I was to assess the feasibility of establishing and maintaining a standard data base for Class II and Class III railroads. From the outset, the system was envisioned as a voluntary process. This meant that the overall data system would have to gain widespread support within the industry.

Several initial criteria were established to guide the feasibility analysis. First, any data system would be voluntarily. Second, in order to encourage industry participation, the database system should ensure the confidentiality of proprietary company data and limit direct access to company records. Third, given the concern of individual railroads regarding data confidentiality, the system should be maintained at a central location outside of the federal government. Fourth, an annual data profile should be published. However, data should be released only in an aggregate manner that would not identify individual carriers or employees.

2.1 Selection of Project Advisory Committees

Two advisory committees were formed to guide project development, provide technical support, and facilitate voluntary industry participation: (1) a policy committee to oversee the project, and (2) a technical advisory committee to provide input regarding the feasibility of collecting individual data items, industry participation strategies, and related matters. The criteria for selecting the policy committee were: the committee should be limited in size and the members selected should have a stake in either the potential collection or use of the data.

Several possible organizations were considered for the policy advisory committee including: the Federal Railroad Administration (FRA), the Regional Railroad Association, the American Short-Line Railroad Association (ASLRA), the Association of American Railroads (AAR), the National Conference of State Railway Officials (NCSRO), and individual railroad companies. After meetings with the FRA, AAR, ASLRA, and several railroad companies it was decided that the policy advisory committee should consist of the Federal Railroad Administration and the ALSRA, with other agencies being consulted on an ad-hoc basis.

The short-line railroad industry has a standing technical committee that deals with informational issues on an on-going basis. The ASLRA Information Systems committee meets regularly to discuss data management and informational issues. The mission of this group closely matches the direction and objectives of the study. Moreover, it was felt that this group would be best suited to discuss industry data needs and create support for the voluntary system. Thus, the Informational Systems committee was asked and agreed to provide technical input and guidance to the project.

2. 2 Existing Short-Line Railroad Data Collection, Distribution, and Use

As most observers of the short-line industry are aware, several agencies currently collect specific data elements. The primary organizations that collect data from short-line and regional railroads on an on-going basis are:

- Association of American Railroads (AAR)

- Federal Railroad Administration (FRA)

- The Railroad Retirement Board (RRB)

- State departments of transportation

- State utilities and public service commissions

- State revenue and tax departments

- Consultants

Some of these data collection efforts consist of annual reporting requirements. Others consist of periodic surveys by the agency.

2.2.1 AAR Profiles

The Association of American Railroads (AAR) publishes an annual profiles of local and regional railroads. The AAR profiles is available on floppy disk or in report format. The disk files contain the following data items:

- State (headquarters)
- States the railroad operates in
- Year of startup
- Predecessor railroads
- Miles of road
    - Owned
    - Operated

- Employees
- Type of railroad (local, regional, or S&T)
- Owner (private, government, shipper, car leasing company, other railroad)
- Carloads of freight
  - Local
  - Forwarded
  - Received
  - Bridge
- Major commodities handled (as a percent of total traffic)
- Average haul
- Number of connecting railroads
- Revenue range

The AAR defines regional railroads (Class II carriers) as non-Class I line-haul operations with 350 or more miles of road or revenues of at least $40 million. Local railroads (Class III) are defined as those which have revenues under $40 million and operate less than 350 miles of road.

The published AAR profiles is divided into five sections. First, an overview of industry organization and structure is provided. This section contains information regarding the commodities carried, the distribution of railroads by state, and track miles for individual railroads. The second section contains operating and financial characteristics, including: the net change in road miles, miles of road, number of employees and type of carrier (for those railroads created since 1970). The third section presents an overview of federal and state assistance. The fourth section contains a partial history of railroad failures by year, miles of track, and state. The final section of the profiles contains railroad addresses, revenue ranges, employee numbers, carloads, commodities handled, ownership class, type of carrier, track miles, and the number of interchange railroads for each railroad.

The AAR profiles are widely used by industry analysts and transportation data bureaus (such as the Eno Foundation). Although very useful, the AAR profiles do not provide

information regarding the number and type of shippers served, equipment inventories, track classification data, employee compensation, company benefit plans, or industry financial benchmarks.

2.2.2 Railroad Retirement Board Data Supplement

A second major publication containing regional and local railroad data is the *Statistical Supplement*, which is an annual report created by the Railroad Retirement Board (RRB). The RRB publication contains financial data regarding the Railroad Retirement and Railroad Insurance Acts.

The RRB report has four sections. The first section contains financial statistics. Beneficiaries and benefits paid under the Railroad Retirement and Railroad Unemployment Insurance Acts are listed by amount of payment, by class of benefit and by the state in which the beneficiary resides. The status of benefit programs and insurance accounts (e.g. Rail Retirement, Social Security Equivalent Benefits, Dual Benefits Payments and Supplemental Accounts) is also listed.

Section 2 of the RRB report contains retirement and survivor benefits. Retirement, survivor, and death benefit payments are listed by year and by railroad. Employee annuities, awards and current payment status are also listed. Information is provided for individual railroads within each of the employer classifications.

The RRB classifies railroads on the basis of revenues. Class I carriers are those with yearly operating revenues of at least $93.49 million. Class II railroads have operating revenues between $93.49 and $18.70 million, while Class III carriers generate less than $18.70 million in

operating revenues[1]. Seventeen Class I, 18 Class II, and 20 Class III railroads and 35 switching and terminal companies are listed individually. The remaining railroads and companies are included in the *other* category. It should be noted that the AAR and RRB have different definitions for classes of railroads. Thus, several carriers are classified differently by the RRB.

The third section of the RRB statistical supplement contains unemployment and sickness benefits. The number of unemployment and sickness beneficiaries, average payments, and awards by state are listed by sex and age and by type of illness.

The final section contains employment compensation and coverage statistics. The number of employees and amount of compensation for all railroad employees is listed. This section also contains a summary of a railroad employee's length and pattern of service.

All information in the RRB publication pertains specifically to the finances and distribution of the Railroad Retirement and the Railroad Unemployment Insurance Acts. In 1986, 31 Class I, 22 Class II and 437 Class III railroads, and 199 switching and terminal companies were included in the report. Some information is presented by class of railroad. However, for the most part, information about individual Class II and III railroads is not provided in the RRB report.

The RRB employee data record does contain the railroad code. Thus, it may be possible to sort the data and generate aggregate information by carriers. However, this is not being done at present.

2.2.3 Federal Railroad Administration

The FRA requires Class II and Class III railroads to report a limited set of data used for safety monitoring and analysis. Currently, the FRA requires three items: train-miles, man-hours, and miles of road.

In addition, the FRA recently administered an infrastructure survey. The infrastructure survey requested:

- Miles of main and branch line track, by four speed classes

- 1987 carloads handled

- 1987 revenues

- Estimated rehabilitation cost required to eliminate slow-orders and weight restrictions and bring track and track structure up to a condition that will permit continued operations at current timetable speeds

  - Tie replacement, ballast, and surface
  - Rail replacement
  - Bridge repair and replacement
  - Grade crossing rehabilitation

- Projected on-going track maintenance expenses

- Internal funding capabilities

The FRA received responses from 358 of the short-line and regional railroads surveyed, a response rate of 78 percent. The respondents accounted for 87 percent of the miles of Class II and Class III rail line.

2.2.4 Interstate Commerce Commission

The ICC does not require annual reports from Class II and Class III carriers. However, in 1986 the commission administered a major questionnaire to a segment of the short-line and regional industry. The ICC's principal reason for surveying the industry was to identify important issues and problems related to labor, service, viability, and working relations with Class I connections.

The ICC's Office of Transportation Analysis (OTA) identified 195 short line and regional carriers that began operations between 1980 and 1986, and surveyed all of these carriers. In addition, OTA conducted on-site interviews with officials and employees of 34 of the railroads. The OTA collected profile data from all of the carriers, including: road mileage, number of employees, whether or not labor was unionized, traffic volume, traffic mix, and geographic location of operations. In addition, the surveys collected information on satisfaction with connecting Class I carriers, and the perceived future prospects for the success of the railroad. The ICC's on-site interviews were mainly aimed at identifying labor concerns.

From the surveys, OTA found a great deal of variation in the size and scope of operations. Carriers with less than 250 miles of road had an average of 10 employees, 4,000 carloads of traffic per year, and a work force that was only 10 percent unionized. On the other hand, the regional carriers (more than 250 miles of road) had an average of 210 employees, 62,000 carloads of traffic per year, and a work force that was 77 percent unionized. Furthermore, these regional carriers handled a great deal of manufactured goods in addition to bulk commodities, while the short lines handled mainly bulk commodities.

On-site interviews provided insight into the impact of the sale of rail lines on employees, the structure and operations of unions, and the attitudes of employees. The OTA found the overall impact on employment levels from the sales to be minimal. They found that while wages of employees dropped with the sale, many employees were not dissatisfied. Wages for employees of the new carriers were found to be between 67 and 90 percent of the Class I industry average. In regards to work rules, the survey determined that several concessions were granted to railroads that retained union labor. Finally, the employee attitudes towards new management and employee satisfaction differed between union and non-union labor, with non-union labor generally being more satisfied and having a more positive attitude towards the new management.

2.2.5 State Data Collection and Usage

Short-line railroads report a significant amount of data to various state agencies on an annual basis. In many states, Class II and Class III railroad data are collected by three governmental agencies: the department of transportation, public service or utility commission, and revenue (or tax) department. These data collection efforts are not necessarily coordinated among or within states. Each state agency typically solicits the information it needs to fulfill its responsibilities. Data are rarely shared because most states have confidentiality agreements with railroads that restrict the use of data items.

A state government survey was designed and administered to all three classes of agencies. The results of the state survey are fully documented in Appendix E, which contains copies of many reports and survey forms used by the responding agencies. In addition, an overview of the data elements collected by state agencies is presented in Tables 1-3.

Table 1 shows the major data items collected by the state transportation departments that responded to the survey. Over half of state DOTs collect track miles and gross ton-miles. In addition, eight (or 73%) of the responding DOTs collect carload data. Eight DOTs also collect net railway operating income (NROI), while seven agencies collect detailed expenditures by account. Less than half of the respondents collect commodity or employee data.

Overall, transportation department data collection efforts appear to emphasize traffic and expense data. Over half of the state utility and public service commissions responding to the survey collect balance sheets, NROI, expenditures, track and route miles, and gross ton-miles. In addition, half of the utility commissions collect equipment data, while five collect train miles. State revenue and tax departments (in general) collect more data than DOTs or utility commissions, and in some cases the data are more consistent among states. Twenty-nine (80%) of the respondent agencies collect track miles. Twenty-two of those twenty-nine also collect miles operated in the state. Twenty-two revenue or tax departments also collect ton-miles, while 17 agencies collect car-miles and locomotive unit-miles.

As expected, the majority of the tax and revenues departments (28) collect property data. Twenty-seven agencies collect property data at the county level, and 19 agencies collect data regarding property additions. Most agencies (29) also collect information on equipment leases, and many also collect data on long- and short-term debt.

The state survey illustrates several important points regarding existing data collection and distribution practices. First, considerable overlap exists among state agencies in terms of current data collection. Many railroads report identical information to different agencies within the same state. Duplicative reporting tends to increase administrative costs for both railroads and state

governments. Second, the data elements collected vary from state-to-state, so there is no

consistent basis for comparison. Third, much of the operational and infrastructure data collected

by state agencies reflect the operations or track within a state's borders. However, many short-

line railroads operate in several states. Thus, an individual state's data may not accurately depict

company-wide operations or characteristics. Moreover, data collected by several states reflecting

in-state operations cannot necessarily be added together to describe overall company

characteristics. Fourth, a standardized data survey may significantly reduce a railroad's cost of

providing data to several states. Fifth, short-line railroads are already reporting a basic core of

statistics that could comprise an industry profile. Therefore, participation in a voluntary

nationwide database should not significantly increase a short-line railroad's existing data

reporting costs.

Table 1 *STATE DEPARTMENT OF TRANSPORTATION - CLASS II AND III RAILROAD DATA*								
STATE	MANAGEMENT	EMPLOYEE	EMPLOYEE WAGES	PROPERTY VALUE	BALANCE SHEET	EXPEND BY ACCOUNT	GRADE CROSSING	NET RETURN ON INVESTMENT
Florida								
Iowa		X			X	X		X
Missouri		X		X		X		X
New York					X	X		X
N. Carolina	X	X	X			X	X	X
Oklahoma	X							X
Oregon	X			X	X	X		X
Pennsylvania	X			X				
Virginia					X	X		X
Washington	X			X		X		X
Wyoming								

STATE	TRACK MILES	ROUTE MILES	FREIGHT CAR MILES	GROSS TON MILES	CARLOAD ORIGINATED	CARLOAD TERMINATED	CARLOAD BY STCC	COMMODITY BY STCC
Florida			X	X	X		X	
Iowa	X		X	X	X		X	
Missouri	X	X	X	X			X	
New York	X	X		X	X	X		X
N. Carolina					X		X	
Oklahoma								X
Oregon	X	X		X	X	X		
Pennsylvania	X	X			X			
Virginia					X	X		
Washington	X							X
Wyoming		X		X	X	X	X	

Table 1 (Cont.) *STATE DEPT. OF TRANSPORTATION - CLASS II AND III RAILROAD OPERATIONAL DATA*

STATE	BALANCE SHEET	NET RETURN ON INVESTMENT	EXPEND BY ACCOUNT	GRADE CROSSING	TOTAL CARLOAD	CARLOAD BY STCC	EMPLOYEE WAGES	MANAGEMENT
Table 2 *STATE PUBLIC UTILITY AGENCIES - CLASS II AND III RAILROAD GENERAL DATA*								
Alabama	X	X	X					X
Arkansas		X						
Louisiana	X		X					X
Maryland		X	X	X		X		
Missouri	X				X			
North Dakota	X	X	X		X	X		X
Ohio		X						X
Oregon	X	X	X	X	X	X	X	X
Pennsylvania	X	X	X	X	X	X	X	X
Utah	X	X	X					
Washington		X						
W. Virginia		X	total					

	TRAIN MILES	ROUTE MILES	GROSS TON MILES	TRACK MILES	TRACK WEIGHT & GAUGE INFORMATION	TRACK REPLACEMENT	EQUIPMENT BY ACCOUNT	PRINCIPAL COMMODITY
STATE								
Alabama				X				
Arkansas							X	
Louisiana	X	X	X	X	X	X	X	
Maryland	X	X	X	X				
Missouri		X		X			X	
North Dakota	X		X				X	
Ohio		X		X		X	X	
Oregon	X	X	X	X				
Pennsylvania	X	X	X	X	X	X	X	
Utah								
Washington				X				
W. Virginia			X					X

Table 2 (Cont.) STATE PUBLIC UTILITY AGENCIES - CLASS II AND III RAILROAD OPERATIONAL DATA

Table 3 *STATE REVENUE DEPARTMENTS - CLASS II AND III RAILROAD GENERAL DATA*									
STATE	LONG-TERM DEBT	SHORT-TERM DEBT	EQUIPMENT LEASED	EQUIPMENT BY ACCOUNT	TRACK ABANDONMENT STUDIES	PROPERTY	PROPERTY ADDITIONS	TRACK WEIGHT	NUMBER OF TIES
Alabama			X			X	X		
Arizona			X	X					X
Colorado	X		X				X		
Florida	X		X			X	X		
Georgia	X		X			X	X		
Idaho			X	X		X	X		
Illinois		X	X			X	X		
Indiana			X			X	X		
Iowa	X		X	X		X			X
Kansas	X	X	X	X		X	X	X	
Kentucky			X			X	X		
Louisiana	X					X			
Michigan			X	X		X	X		
Minnesota			X		X	X			
Mississippi	X								
Missouri	X		X			X			
Montana			X	X		X	X		
Nebraska			X			X	X		

	LONG-TERM DEBT	SHORT-TERM DEBT	EQUIPMENT LEASED	EQUIPMENT BY ACCOUNT	TRACK ABANDONMENT STUDIES	PROPERTY	PROPERTY ADDITIONS	TRACK WEIGHT	NUMBER OF TIES
STATE									
Nevada			X				X		
N. Hampshire	X								
New Jersey						X			X
New Mexico	X		X		X	X			
New York						X	X		
N. Carolina	X		X			X	X		
North Dakota	X		X			X	X		
Ohio				X		X			
Oklahoma						X	X		
Oregon			X	X		X		X	X
Pennsylvania									
S. Carolina									
S. Dakota	X		X			X			
Utah			X			X			
Vermont			X	X					
Virginia			X	X		X			
Wisconsin			X	X	X	X	X		
Wyoming	X					X	X		

Table 3 (Cont.) *STATE REVENUE DEPARTMENTS - CLASS II AND III RAILROAD GENERAL DATA (CONTINUED)*

Table 3 (Cont.) *STATE REVENUE DEPARTMENTS - CLASS II AND III RAILROAD OPERATIONAL DATA*									
STATE	TOTAL TON MILES	TONS ORIGINATED/ TERMINATED	TRAIN MILES	CAR MILES	TRACK MILES	STATE MILES	LOCOMOTIVE UNIT MILES	TRAIN HOURS	COUNTY PROPERTY
Alabama	X	X	X	X	X				
Arizona	X	X			X				X
Colorado					X	X			X
Florida	X			X	X	X			X
Georgia	X				X				X
Idaho	X				X	X	X		X
Illinois	X	X	X	X	X	X	X	X	X
Indiana	X	X	X	X	X	X	X	X	X
Iowa	X				X	X			X
Kansas	X			X	X		X		X
Kentucky	X			X	X	X	X		X
Louisiana	X			X	X	X	X		
Michigan	X	X		X	X	X	X		
Minnesota	X				X	X			
Mississippi	X		X		X				X
Missouri	X	X		X	X	X	X		X
Montana	X			X	X	X	X		X

	TOTAL TON MILES	TONS ORIGINATED/ TERMINATED	TRAIN MILES	CAR MILES	TRACK MILES	STATE MILES	LOCOMOTIVE UNIT MILES	TRAIN HOURS	COUNTY PROPERTY
STATE									
Nebraska				X	X	X			X
Nevada	X	X	X		X		X		X
N. Hampshire						X			X
New Jersey					X				X
New Mexico	X	X		X	X	X	X		X
New York									
N. Carolina	.								
North Dakota	X			X	X	X	X		X
Ohio					X	X			X
Oklahoma									X
Oregon	X	X	X		X				X
Pennsylvania						X			
S. Carolina									X
South Dakota		X		X	X	X	X		X
Utah									
Vermont	X				X	X	X		
Virginia			X	X	X	X	X		X
Wisconsin	X	X	X	X	X	X	X		X
Wyoming				X	X	X	X		X

Table 3 (Cont.) *STATE REVENUE DEPARTMENTS - CLASS II AND III RAILROAD OPERATIONAL DATA (CONTINUED)*

2.2.6 National Conference of State Railway Officials

In the early 1980s, the National Conference of State Railway Officials (NCSRO), a

branch of the Association of State Highway and Transportation Officials, surveyed the short-line

and regional railroad industry. The NCSRO collected data from 247 Class III railroads (less than

$10 million annual gross revenue) in 1983, and 238 railroads in 1984. The data included road

mileage, traffic volume, and short term and long term financial data. Using these data, NCSRO

calculated regional and national averages for select performance measures and financial ratios,

including operating revenue per carload, operating expense per carload, maintenance expense per

mile, carloads per mile, current ratio, debt ratio, return on total assets, and return on net worth.

2.2.7 Consultants

Arthur Andersen & Company periodically surveys the local and regional railroad industry,

and computes a set of average statistics. The survey encompasses six major areas of data:

- Economic impacts of the railroad

- Operations

- Road & Structures

- Power & Fleet

- Labor

- Financial

The major data items collected in the survey (or computed from survey data) are summarized

in Table 5. As Table 5 shows, the Arthur Andersen survey collects a wide range of useful data.

However, the sampling procedure and survey process are not well documented. Furthermore, the

same size and sample strata are unknown. Therefore, confidence limits and reliability bounds cannot

be placed on the sample averages.

Table 5. Arthur Andersen & Co.
Regional and Short-line Railroad Survey

ECONOMIC IMPACT:

% Change (since first full year of operations or 1980,
whichever is most recent) in:

      Number of carloads
      Number of employees
      Number of communities served
      Number of shippers using rail
      Miles of main line track in service

OPERATIONS:

RELATIVE TRAFFIC LEVELS (as a percentage of total annual carloads):

Local
Interline Forwarded
Intermediate
Interline Received
        Total
Intermodal annual carloads included above

PRINCIPAL COMMODITIES:

Coal
Grain
Pulp, paper, and allied products
Forest products
Chemicals or allied products
Lumber/wood
Other
        Total

REVENUE & EXPENSES:
Annual carloads
Average revenue per carload
Average revenue per carload per mile
Revenue ton miles
Average number of cars per train:
        Loaded
        Loaded and empty
Loss & damage expense/net revenue
Transportation expense/net revenue

ROAD & STRUCTURES:

PREDOMINANT MAIN LINE RAIL WEIGHT:

  80 lbs. - 99 lbs.
100 lbs. - 119 lbs.
120 lbs. - 129 lbs.
130 lbs. and over

Miles of main line track operated
% of miles of main line track Class 1 or exempt
Repairs & maintenance annually capitalized
Percentage of total R&M capitalized
Capital expenditures per mile
Number of crossties replaced per mile
Miles of rail replaced/total miles
Estimated deferred maintenance cost
% of Maintenance of Way outsourced
% of Maintenance of Comm. & Signaling outsourced
Maintenance of Way expense/net revenue

POWER & FLEET:

Locomotives - quantity owned
Owned locomotives - average age
Locomotives - quantity leased
Leased locomotives - average age
Freight cars - quantity owned
Owned freight cars - average age
Freight cars - quantity leased
Leased freight cars - average age
Repairs and maintenance costs capitalized
Percentage of total R&M capitalized
Net car hire expense/net revenue
Mechanical expense/net revenue
Fuel expense/net revenue
Total gallons of fuel consumed
Percentage of maintenance of rolling stock
      & equipment completed in-house

DEPRECIABLE LIVES IN YEARS:

Locomotives
Freight cars
Track structure
Bridges
Other

LABOR:

Percent of total employees, by department:
    Transportation
    Maintenance of way and structures
    Maintenance of equipment and stores
    Administrative/accounting
    Marketing
    Other
        Total

    Number of unions represented

Percent of total salaries and fringes, by department:
    Transportation
    Maintenance of way and structures
    Maintenance of equipment and stores
    Administrative/accounting
    Marketing
    Other
        Total

Labor ratio

Average crew size

Percentage of total employees covered by:
    Railroad retirement
    Pension (over and above RR retirement)
    Profit sharing or 401(k)
    Incentive bonuses
    Life insurance
    Health insurance
    Dental insurance

RR retirement expense/net revenues

FINANCIAL INFORMATION:

 Gross revenues
 Operating ratio
 Operating margin (oper. income/net revenue)
 Interest expense/net revenue
 General & admin. expense/net revenue
 Depreciation expense/net revenue
 Net income/net revenue
 Debt-to-equity ratio
 Debt service/net revenue
 Current ratio

John Gohman & Associates periodically publish a *Regional and Short-Line Wage & Salary Survey*. The third edition (which includes 1993 and 1994 data) compares wages and salaries by region, size of railroad, mileage, number of employees, years in business, and annual gross revenues. There is an $80 charge for the report. The number of reporting railroads and the sampling techniques were not known at the time this project report was completed.

2.2.8 Other Data Collection Efforts

Many short-line and regional railroads collect and submit data to insurance companies, banks, and related institutions. Upon request, several railroads provided copies of confidential forms submitted to insurers. In general, these institutions tend to require very detailed revenue, expense, and investment data. However, many of the same data elements are already reported by many railroads to state revenue or tax departments.

In addition to the scope and contents of existing data collection, it was deemed important to understand the capacity of the industry for electronic data transfer and the current state of practice. It is not known how much of the data collected and submitted to state agencies and

institutions is in an electronic data interchange (EDI) format. To help shed light on overall
practices, a recently completed survey of information systems capabilities in the local and
regional railroad industry has been reviewed and summarized in the next section of the report.

2.2.9 Computer & Software Capabilities of the Short-Line and Regional Railroad Industry

A 1992 study by Transport & Management Consultants (T&MC) assessed the
information system capabilities of the short line and regional railroad industry. The sample of
local and regional railroads obtained by T&MC (which mirrored the industry in terms of age,
ownership, and function) showed several important trends related to computer use:

- Computer hardware capacity is adequate, and reflects the expected range of capacity for small and mid-sized businesses outside the rail industry. Eighty-five percent of respondents used computers in 1992. This figure was up 6 percentage points from a similar 1990 study. Of those that reported computer use, 89 percent had access to a 386 CPU or more powerful computer. Furthermore, many carriers (particularly larger carriers) reported using mid-sized or mainframe computers in addition to personal computers. Computer capacity varied by carrier size, function, and ownership.

- The intensity of computer use has increased in recent years. In 1992, nearly two-thirds of responding railroads performed general accounting functions on in-house computers. This was up 10-15 percentage points from the 1990 survey. Computer use for car tracing and waybill/clerical functions have also increased since 1990. Electronic data interchange (EDI) with connecting railroads increased dramatically for responding railroads from 1990 to 1992. This increase was from 33 percent of responding railroads to 63 percent that participated in EDI with connecting railroads. EDI with shippers doubled to 12 percent of those who responded. Computer use for management analysis functions and EDI with vendors decreased some from the 1990 survey.

- EDI has expanded greatly despite a somewhat negative attitude towards it in 1990. In 1990, only 30 percent of respondents indicated that they would adopt EDI, and only 11 percent indicated they desired to do so. In 1992, 63 percent of the respondents use EDI. T&MC attribute the expansion to the efforts of the AAR and Class I carriers in developing and distributing EDI software.

- Despite increased intensity in computer use in recent years, computer use for management analysis functions and operating functions remains low. T&MC suggest that an industry effort (similar to that done for EDI) to develop software for these functions could strengthen short-line operating and management systems, and service quality.

- A great deal of interest exists in the short-line industry with regards to the Interline Settlements System (ISS) and/or Rate EDI Network (REN), but very little with regards to Automatic Equipment Identification (AEI) readers. Forty-five percent of the respondents intend to participate in ISS/REN, while only 9 percent intend to participate in AEI.

The T&MC study suggests that the overall level of information systems technology in the local and regional rail industry is adequate, and continued improvements in quality interline transportation are likely. The one factor that may limit continued improvements is a lack of development of rail management and operating software. Industry support for such software will probably be required, as most local and regional railroads do not have the resources necessary to develop it on their own.

2.3 Potential Database Management Agencies

As section 2.2 illustrated, many different organizations currently collect an inconsistent and varying set of short-line railroad data. Moreover, the long-run status of these disparate data collection efforts is unclear, particular those of private organizations. The purpose of this section of the report is to evaluate the long-range interests of these organizations in collecting, maintaining and distributing various types of short-line railroad data on continuous basis.

Three major criteria are used in the evaluation: (1) the likelihood of a long-run commitment by the agency to collecting and providing the data, (2) the potential of the organization for solidifying strong voluntary industry participation, and (3) the extent to which

the private organization is likely to collect and distribute data that are of use to federal and state agencies.

Many consultants would probably be interested in collecting and maintaining the data base, provided there is continuous government financial support or a guaranteed market. However, the long-run commitment of a consultant would depend on the profits generated from the data. If the data do not have widespread distribution, or there is no consist public funding support, then the consultant would have little incentive to continue and maintain the data base.

Clearly, a major benefit of a standard database is the availability of a consistent set of information over time. Primary reliance upon consultants as suppliers of short-line railroad information may leave the railroad industry and government without standard data in future years. Nevertheless, there may be appropriate roles for consultants as database managers in situations where another private institution such as the ASLRA or the AAR acts as the lead agency responsible for promotion and oversight of a long-range data collection effort.

Three leading private organizations were interviewed regarding their long-run interests and intentions: the AAR, the American Short-Line Railroad Association (ASLRA), and the Eno Foundation. The AAR expressed considerable interest in continuing to collect their existing profiles and looked positively upon collecting and maintaining an expanded data base[3]. However, some reservations were expressed. The AAR's current data collection effort is already time-consuming and requires many follow-up reminders and sometimes direct telephone calls to the railroad. An expanded effort would require even more resources. Overall, the AAR is

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[3]Denver Tolliver and Dan Zink of NDSU, Bob Hunter and Larry Fitzgerald of FRA, and William Loftus of the ASLRA met with Mr. Harvey Levine, head of the AAR's short-line railroad data collection effort, and several members of the AAR staff in January of 1993 in their offices in Washington DC.

interested in the concept of an expanded data base and perhaps in becoming the database manager. However, their final evaluation would depend upon the additional resource requirements of the expanded data base and the potential availability of financial support or guaranteed markets for the data.

Mr. William Loftus (president of the ASLRA) and the Information Systems committee have expressed a strong desire in having the ASLRA collect, maintain, and distribute the data. The ASLRA has the natural advantage of an agency association. As constituents of the organization, individual carriers may feel more comfortable and enthusiastic about collecting the requested information. Thus, the level of participation and long-term commitment may be higher with the ASLRA as the data collection and management agency. However, like the AAR, the ASLRA would probably need additional resources to collect and manage the data.

Mr. Frank Smith of the Eno Foundation expressed strong support for the concept of an expanded data base. However, Mr. Smith doubts whether the Eno Foundation would have the resources at present to collect and maintain the data[4]. Nevertheless, they would be a regular user of the information.

Overall, the ASLRA is the most logical lead agency for an on-going short-line database system and data collection effort. However, the ASLRA should consider coordination of efforts with the AAR. One possible arrangement would be a joint data collection effort that would combine the industry participation and promotional capabilities of the ASLRA with the existing data collection resources and experience of the AAR.

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[4]The organization is currently expanding its staff, and it is possible that the additional resources could change the situation.

3.0 Data Base Elements and Potential Report Strata

Tasks 3-6 of Phase I were concerned with the selection of a consistent set of railroad data elements to be collected each year and criteria for stratifying and presenting the data[5]. The purpose of this section of the report is to describe the process of selecting candidate data elements, the design of the survey, and a set of potential classification variables that could be used for data aggregation.

Altogether, the technical advisory committee (the Information Systems committee) participated in three major working sessions and provided mail and telephone comments regarding data elements and survey design. Several additional working sessions were held with FRA and the ASLRA staff. Over time, a consensus set of data elements emerged from this process. These elements were fashioned into a questionnaire and field-tested on a select set of railroads.

Altogether, eight short-line and regional railroads participated in the test, and provided detailed comments regarding the proposed set of data items as well as the data entry software (to be discussed later). Based on these comments, the original questionnaire and data entry software were refined. The final questionnaire (used for 1993 data collection) is shown in Figure 1.

The survey has seven major parts plus a section for comments. The purpose of Part I is to construct a general profile of the railroad's customer base and classify the railroad according to scope of operation and function (as either a regional, local-line haul, switching & terminal or port

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[5] The objective of Task 3 was to ascertain the types of new or expanded data that would be useful to the railroad industry and which they would voluntarily report. The related objectives of Tasks 5 and 6 were to develop a recommended set of data items for inclusion in the annual survey and database system. The objective of Task 4 was to stratify the industry according to economic, operational, and other characteristics.

railroad). In Part I, railroads are also asked to classify customers according to major Standard Transportation Commodity Code (STCC) groups[6] Part II of the survey requests data regarding miles of railroad (by state, weight of rail, and FRA track class), bridges and highway grade crossings, rail and ties laid in replacement, and rail laid in new lines or extensions. Part III asks for an inventory of freight cars owned and leased, classified by age category and by general car type (e.g. box cars, gondolas, hoppers, and flat cars); and for a similar inventory of locomotive units owned and leased, classified by age category and horsepower class. Part IV requests annual carloads of freight originated, terminated or handled by major STCC group; line-haul operating statistics (e.g. train and locomotive miles); and locomotive fuel consumption, cost and idling policy. Part V asks for information typically included in a company's balance sheet, income statement, or source of funds statement and for projected capital investments for the next five-year period. Part VI requests a wide range of data regarding employee levels, hours of service, compensation, and health, pension and benefit plans. Part VII addresses passenger train operations and revenues.

Stratification of survey results is necessary for comparative financial and asset analysis. Many stratification variables are possible, some of which are typically used in railroad economic analysis. Frequently, railroad survey data are classified according to size, output level, density, geographic region, commodity mix, and function or type of operation. All of these stratifications are possible using the short-line railroad survey shown in Figure 1, in conjunction with some assignment procedures that have been programmed into the database. Each survey respondent is classified according to ASLRA geographic region: East, South, Pacific, and West/Southwest.

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[6]The commodity groups primarily correspond to the two-digit STCC.

Thus, each railroad can be classified according to region as well as type of railroad (line haul-local, regional, S&T and port). Both of these criteria are used in the analysis of 1993 data (which are presented in a later section of the report).

Railroad size, annual traffic level and traffic density affect capital investment needs and operating costs. Short-line railroads can be stratified by miles of road. For example, the AAR uses 350 miles of road as one criterion for distinguishing between local and regional railroads. Other intervals are also possible (e.g. <100; 100-340, 350-900, and > 900). Traffic density is frequently measured in gross ton-miles per mile or cars per mile. Although gross ton-miles per mile cannot be computed from the survey, it is possible to stratify the industry into intervals based on cars per mile. In addition to annual carloads, revenue and revenue ton-miles are sometimes used as measures of industry output. Stratification based on all three values is possible given the scope of the survey.

Instead of selecting a static set of stratification criteria, the central database has been designed to allow the database manager to stratify reports according to several criteria. These features are detailed later in section 4. At a minimum, it is recommended that the data be stratified by region and type of railroad each year. This basic stratification will present a consistent picture of the distribution of assets, investments and capital needs by region and allow companies to perform benchmark analysis for railroad classes with similar characteristics[7] In addition, the database manager should consider the statistical and economic usefulness of more detailed stratification in future years.

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[7]Classification by type of railroad reflects general size and revenue differences between short-line and regional railroads as well as some functional and operational differences. Stratification by region captures climatic, price and institutional variations within the U.S.

Figure 1. 1993 Survey   37

AMERICAN SHORT-LINE RAILROAD ASSOCIATION

CLASS II AND CLASS III RAILROAD

ANNUAL DATA PROFILE (1993)

CONTENTS

Figure 1. 1993 Survey   38

PART I. Customer Profile

Railroad Name   _____

Railroad Type (Regional/Local - Line-haul/S&T/Port RR)   _____

Name of Principal Owner   _____

Contact Person   _____

Customers Served

Commodity Group

      Coal   _____

      Farm Products   _____

      Chemicals and allied products   _____

      Food and kindred products   _____

      Non-metallic minerals   _____

      Transportation equipment   _____

      Lumber and wood products   _____

      Pulp, paper and allied products   _____

      Petroleum products   _____

      Stone, clay and glass products   _____

      Metallic ores   _____

      Primary metal products   _____

      Waste and scrap material   _____

      Other   _____

Total Customers Served   _____

Figure 1. 1993 Survey   39

PART II. Inventory of Roadway, Track, and Structures

Miles of Road Owned and Operated, by State			
State	Miles Owned	Route Miles Owned with 90 Pound Rail or Greater	Miles Operated

Miles of Road, By FRA Track Class		
Class	Miles of Road	Average Operating Speed
1		
2		
3		
4		
Excepted		

Figure 1. 1993 Survey

Number of Bridges

- ⇥ Concrete _____

- ⇥ Steel _____

- ⇥ Wood _____

- ⇥ Combination _____

Ties Laid in Replacement

- ⇥ New ties _____

- ⇥ Used ties _____

Rails Laid in Replacement

- ⇥ 90 Pounds or Greater _____

- ⇥ Less than 90 Pounds _____

Additional miles of rail laid in new lines or extensions

- ⇥ 90 Pounds or Greater _____

- ⇥ Less than 90 Pounds _____

Number of Highway Grade Crossings

- ⇥ Public _____

- ⇥ Private _____

- ⇥ Automatic Warning Devices _____

Figure 1. 1993 Survey   41

PART III. Equipment Inventory

Freight Cars Owned and Leased					
Car Type	Total Units Owned	Total Units Leased	Units <10 Years Old	Units 10-20 Years Old	Units >20 Years Old
Box Cars					
Gondolas					
Covered Hoppers					
Open Top Hoppers					
Flat Cars					
All Others					

Locomotives Owned And Leased, by Age and Horsepower					
Locomotive Type	Total Units Owned	Total Units Leased	Units <10 Years Old	Units 10-20 Years Old	Units >20 Years Old
Less than 1000 HP					
1000 - 2500 HP					
Greater than 2500 HP					

Figure 1. 1993 Survey   42

PART IV. Annual Operating Statistics

	Carloads Handled by Commodity Code			
Commodity Code	Carloads Originated and Terminated on-line (local)	Interline Carloads Originated	Interline Carloads Terminated	Bridge Carloads
Coal				
Farm Products				
Chemicals and allied products				
Food and kindred products				
Non-metallic minerals				
Transportation equipment				
Lumber and wood products				
Pulp, paper and allied products				
Petroleum products				
Stone, clay and glass products				
Metallic ores				
Primary metal products				
Waste and scrap material				
Other				

S & T Railroads

Number of carloads handled   _____

Figure 1. 1993 Survey   43

Annual Line-Haul Operating Statistics

Train Miles   _____

Locomotive Miles   _____

Average Length of Haul   _____

Average Revenue per Carload   _____

Revenue Ton-Miles   _____

Annual Fuel Consumption and Locomotive Idling Policy

Total Gallons of Locomotive Diesel Fuel Consumed   _____

Average Cost per Gallon ($)   _____

Do you have an idling policy that shuts down locomotive units after three consecutive hours (or less) of idling time (Yes or No)?   _____

Figure 1. 1993 Survey 44

PART V. Financial Data

Items From Income Statement

Gross Railway Operating Revenue

    Freight   _____

    Other   _____

    Total: Gross Railway Operating Revenue   _____

Railway Operating Expenses

    Way and Structures

        Way   _____

        Bridges   _____

        Total: Way and Structures   _____

    Equipment   _____

        Freight Cars   _____

        Locomotives   _____

        Other   _____

        Total: Equipment   _____

    Transportation   _____

    General & Admin.   _____

    Other   _____

Total: Railway Operating Expenses   _____

Net Railway Operating Income   _____

Figure 1. 1993 Survey   45

Capital Expenditures

     Road   _____

     Equipment   _____

     Other   _____

Items From Balance Sheet

Current Assets   _____

Current Liabilities   _____

     Net Working Capital   _____

State and Federal Grants/Loans   _____

Total Assets   _____

Long-Term Debt   _____

Stockholders Equity   _____

Source and Application of Funds

Capital Expenditures   _____

Depreciation/Amortization and Retirement   _____

Expense   _____

Figure 1. 1993 Survey   46

Projected Capital Investment for Next Five Year Period

Type of Investment	Projected Five-Year Investment	Percentage Funded Internally from Cash Flow
Equipment		
Road		
Other		

Figure 1. 1993 Survey   47

PART VI. Employee and Benefit Data

Employees, Hours of Service, and Annual Compensation

Total Employees (end of 1993)

        Contract   _____

        Non-Contract   _____

Total Man-Hours Worked   _____

Total Annual Compensation Paid   _____

Health/Pension/Benefit Plans

Type of Health Plans	Percentage of Employer Contribution		Total Annual Employer Contribution
	Single	Family	
Medical			
Dental			
Life Insurance			
Annual Cost (Subtotal)			

Type of Pension Plans	Provided by Company (Y or N)	Total Annual Employer Contribution
Profit Sharing		
Supplemental Pension (other than RR retirement)		
Annual Cost (Subtotal)		

401(K) Plan

        Employer percentage match   _____

        Total annual employer contribution   _____

Total annual cost of health/pension/benefit plans   _____

Figure 1. 1993 Survey 48

PART VII. PASSENGER SERVICES

Do you operate passenger or excursion train service (Yes or No)?   _____

Type of services

    Seasonal excursion   _____

    Dinner train   _____

    Other   _____

Annual Revenues from Services   _____

Total (Annual) Revenue Passengers   _____

Figure 1. 1993 Survey   49

PART VIII. COMMENTS AND RECOMMENDATIONS

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

4.0 SOFTWARE COMPONENTS AND REQUIREMENTS

The purpose of this section of the report is to describe the prototype software system and provide general user information. A more technical description is presented in the appendix.

The American Short-Line Railroad Database System (SLRD) consists of two major components: (1) a centralized database program resident at the database administrator's site and (2) a data entry software program used by participating railroads at their place of business. The railroads forward the data file from the data entry software to the database administrator for inclusion into the centralized database. Together, these programs provide facilities for data acquisition and management inside a database framework.

4.1 SLRD Data Base

The database system is characterized by a Graphical User Interface (GUI) that facilitates the use of the various features of the system. The database has been implemented in *MS-Access,* a format that is supported by popular commercial versions of desktop database packages. This will help the database to be transported to other application environments, if need be, in the future.

The software is an event-driven system, which waits for commands from the user, immediately responds to the given commands, and gives the user a feeling that he/she is in control of the system, not vice versa. A description of the major features of the system follows.

4.1.1 GUI and System Features

The system starts running with the display of the top level Multiple Document Interface (MDI) form (dialog box). This form contains a menu bar with the following options: *File, Database Operations, Reports, About, Window,* and *Exit.* Each option indicates its function and intuitively presents a logical grouping for a set of available actions that may be under it. These options present various dialog boxes containing textual information along with command options, data, and other related information. The text in the dialog boxes indicates the actions available to the user and gives an idea on the processing he or she can expect on selecting a particular command.

4.1.2 File

The File menu selection opens up a subset of command options for performing file level operations on the database. These commands are listed below.

4.1.2.1 Browse

Browse allows the user to look at any railroad's record in the database but does not allow the user to make any changes to the database. This command immediately prompts the user for the location of the database to view or browse and then displays a complete list of railroads in a list box. All the railroads present in the database are presented in this list box by name. A railroad is chosen for browsing by double clicking on its name. Once a railroad is selected, the railroad's annual profile is displayed in the data entry format. At this point the user may view any of the various data categories available in the annual profile. The user exits from browse by clicking on the exit command button.

4.1.2.2 Append

The append operation provides a facility for electronically adding railroads to the database. This command is used to add railroads to the database as they are received in electronic format (the SLRDBASE.MDB file on floppy disk) from participating railroads. Append first asks the user for the drive that contains the railroad's floppy disk. After the proper drive is selected, append reads the floppy drive and appends the railroad's database to the central database in the SLRD database system. The user is informed of a successful append operation.

4.1.2.3 Save

The save command saves the database or database record. It will not be available unless it is necessary within the context of the program.

4.1.2.4 Printer Setup

Printer Setup allows the user to access the Window's Print Manager facility. This facility provides many options for selecting, configuring, and accessing the local printer.

4.1.2.5 Print

This command provides the user with the capacity to print out an individual railroad's record in the database. Upon activating this command, the user is presented with a list box containing all railroad in the database. After a railroad is selected, the user is presented another list box containing the various printing options. The user may print the entire record of the selected railroad or the user may chose to print one of the various data categories of the annual

profile. The print requests are sent to the local printer via a Crystal Reports print module and the Window's print manager.

4.1.3 Database Operations

This menu item allows a user to access all the database operations available in the system. Selecting this menu item invokes a dialog box with a list of database management functions. The functions available in the system are to add, delete, and edit records.

4.1.3.1 Add Railroad

The Add Railroad command is used to add information on a new railroad into the central database. This command invokes the various forms or dialog boxes of the data entry software which the user can use to enter the record. A series of dialog boxes which have related data elements are displayed. The main form (dialog box) prompts the user to enter the most basic information, i.e., the name of the railroad, the principal owner of the railroad, and the year for which the rest of the data is relevant. Once this is done, the user can enter different groups of data in any order. Data elements are displayed with labels and corresponding text boxes to receive user input.

The user can return to the main form by using the Main Menu command button available on all forms. The Clear command can be used to clear all the text boxes for the data elements and to fill in new data. An advantage of entering data through forms is that incomplete data can be entered and saved so that the particular record can be edited at some later stage. The user has flexibility in entering data. Once the available data have been entered, the record is written into the database using the Save command button present on the main form (dialog box). This

commits the data to the database. An attempt to exit without saving will prompt the user to save the record first. The Edit command is not available to the user at this time, since the action is the registration of a new entity in the database, and modifying an existing entry or duplicate entries is not permitted. Editing facilities are provided separately for modification of existing records.

4.1.3.2 Edit Railroad

The Edit Railroad command also displays the records of the database in a list box by railroad name. Selecting a railroad will invoke an action similar to that of adding a railroad, except that the existing record on the railroad is displayed on the forms. The user can then update the different groups of data elements and use the save command on the main form to update the record. An attempt to exit out of the form will remind the user to update the record first.

4.1.3.3 Delete Railroad(s)

The Delete Railroad(s) command is used to delete one or all railroad records from the database. If the user decides to delete all railroads from the database, the program will seek confirmation of this action before performing this operation. There is no program recovery from this database operation. If the user decides to delete a single railroad, the program will display a list of railroads for deletion by name. Once a railroad has been selected, the user is prompted for confirmation on his action since this is non-recoverable action on the database. On being granted permission for the operation, the record is removed from the database, and the new state of the database is reflected on the list box.

4.1.4 Reports

This menu item presents a sub menu of report possibilities. The report formats are predesigned but, in most reports, the user controls what railroads or what data items may be included in the report. The reports are summarized below.

4.1.4.1 Industry Summary

This report generates summary statistics on the entire central database. All participating railroads will be included in a report that provides a complete look, in summation, of the annual data profile. The user is presented with the options of selecting the entire database or various data categories of the profile to display. The program displays the report on the screen in a Crystal Reports window which allows the user to view and print the report.

4.1.4.2 Stratify

The stratify command provides the user with the capability of designing a report based upon the stratification of various variable chosen by the user. The report presents a series of summary statistics calculated by the program. The program generates summary statistics for various data elements, essentially a mathematical operation across all the records in the database. All the records in the database meeting the condition of the stratification variables are read for their data element values. The results of the computations and the values of statistical variables are presented in a dialog box. A printing facility is provided to obtain a hard copy of the report. The stratification variables and their possible values are:

Type of Railroad
Regional
Local-Line Haul

S&T
Port RR

Region
  Southern
  Southwestern
  Pacific
  Eastern

Type of Variable
  Total Carloads
  Density
  Revenue-Ton Miles
  Revenue
  Miles of Road

The *Type of Variable* can be used in conjunction with the other stratification variables selected (Railroad Type and/or Region). For example, reports could be stratified by region and miles of road. After one Type of Variable is selected, the program calculates the existing ranges of these variables in conjunction with the other values for any other stratification values. These ranges are presented to the user as possible values for stratification. After the user makes his selection the program displays the result in a Crystal Reports window allowing the user to view and print the report.

4.1.4.3 Standard

The standard report may be viewed on the screen or sent to the local printer. This report currently displays a report very similar to the stratification report with the exception that it is industry wide.

4.1.5 About

The About facility displays information about the system and the program. It displays the version and other related information of the system and provides a brief description of the program.

4.1.6 Window

The Window facility can used to arrange the different dialog boxes or windows in predefined patterns on the screen. This is performed with the Arrange Icons menu item. The Arrange Icons function is used to arrange those windows which have been minimized. It arranges all the icons representing the windows in a neat horizontal row at the bottom of the screen. Additionally, the Show Key Locks function displays the status of the Num Lock, Scroll Lock, Insert, and Caps Lock keys.

4.1.7 Exit

This menu item has two functions. The Exit Program function closes the main program form, terminates the program, and returns to the MS-Windows Program Manager. The Exit Windows function terminates the program and goes to the DOS prompt.

4.2 DENTRY

DENTRY is the data entry software program developed to facilitate the inclusion of a railroad's Annual Data Profile into the central database. The program presents the user with a computerized version of the annual survey through a series of forms and windows identical to the paper survey. DENTRY allows the user to enter the data on these forms and saves the annual

profile to a floppy disk. The floppy disk is forwarded to the database administrator for

incorporation into the central database. A more complete description and technical outline of

DENTRY is found in Appendix B.

4.3 HARDWARE REQUIREMENTS

The system should be run on an IBM-PC compatible that is capable of running MS-

Windows 3.1. The system will require a microcomputer with a 80486 processor and 2MB or

more of RAM. The system also requires a mouse for fast and smooth operation. A hard disk 40

MB with 5-6 MB of free space is a minimum requirement for installing the system. A color

monitor is needed to realize the full potential of the graphical user interface. A printer is required

to obtain hard copy outputs of reports and results of queries. The development environment

required a similar system, but additional memory is recommended for a shorter development

cycle.

4.4 SOFTWARE REQUIREMENTS

The software requirements defined the choice of the target operating system versions and the availability of software tools to build the system. The Short Line Railroad Database system requires the MS-DOS operating system version 5.0 or later and MS-Windows 3.1 or later.[8]

4.5 FUNCTIONAL DESCRIPTION

The SLRD system is divided into many functional parts. This section presents a description of the different functions implemented in the system. Each function is explained, its role described with respect to the structure of the system, and the interplay among the different functions and other system elements discussed.

The Top level MDI form is invoked when the system is started by the user from the MS-Windows Program Manager. The MDI Form presents a set of actions available to the user. The user's selection is interpreted, and the appropriate module is initiated.

4.5.1 The Graphical User Interface (GUI)

The GUI Module is responsible for providing a mechanism to receive input and for displaying information obtained from the execution of other modules. It presents various

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[8]The development environment required Visual Basic for Windows and MS-Access 1.0 or 1.1. Visual Basic provided the facilities for the programmer to create, compile, link, run, and debug the Windows application without leaving the Windows environment. The Visual Basic programming system allowed creation of attractive and useful applications that fully exploit the graphical user interface (GUI). Using Visual Basic, powerful, full-featured applications can be developed to exploit key features of Microsoft Windows, including multiple-document interface (MDI), object linking and embedding (OLE), dynamic data exchange (DDE), graphics, and more. The finished application is a true .EXE file that uses a run-time DLL that can be freely used on any hardware (that conforms to the hardware specification). The system also precludes the user from making any changes to the program or to the structure of the database.

methods to the user for receiving commands. User input obtained through different methods presented in dialog boxes (command buttons, options buttons, or typed text) are read and passed to the corresponding module. The GUI module displays the results obtained by the actions of the other modules and data obtained from reading the database.

The GUI supports keyboard and mouse access. All standard features available in MS-Windows applications are provided. This includes re-sizable and moveable windows, common dialog boxes, scroll bars, and menu bars for item selection. Since the GUI serves as the window into the database, it presents data in different formats, either a record at a time or as a collection of records in a table.

The GUI acts as a supervisor for all the other functions. Through the GUI, the user can access the facilities of the system. It receives input from the user and directs the execution of the other functions. The DBMS functions for adding, deleting, and updating are made available to the user when he/she selects the appropriate command from the menu. The Report Generator is also executed through the GUI.

4.5.2. The Database Management System (DBMS)

The DBMS is responsible for managing the data inside the database. It provides features for adding, deleting, and updating records in the database. Adding records to the database can be made by either entering data through a set of dialog boxes (forms) or by merging data from another data file into the database. Records can be updated. Once a record is selected, the existing information stored in the record is displayed on forms. These data can be changed and updated in the database. Records can be deleted by selecting them from a list box, which has a

listing of records based on their railroad name field. The GUI Module seeks confirmation from the user for this non-recoverable action; and, based on this, the Database module takes the appropriate action.

4.5.3 The Report Generator (RG)

The Report Generator is responsible for the calculation and generation of summary statistics of the entire database. It reads all the information in the database and passes on the results of the summary statistics to the GUI Module. The GUI Module displays the results in a window. Facilities are also provided to obtain a hard copy output of the contents displayed on the window.

4.5.4 The Browse Module

This module displays a list of railroads stored in the database. Once a railroad is selected, it extracts the appropriate record from the database. The GUI module presents the results of this action on different forms.

4.6 Functional Decomposition of the System

A Data Flow Diagram (DFD) is a graphical technique that depicts information flow and the transformations that are applied as the data move from input to output. The DFD may be used to represent a system or software at any level of abstraction displaying the models of the information and functional domains. The DFD's for the system are displayed in Figure 2 through Figure 5.

An Entity-Relationship (ER) model sets out data entities and relationships among these entities. Entities can have attributes as can relationships. Figure 6 represents the ER diagram for the short-line railroad database.
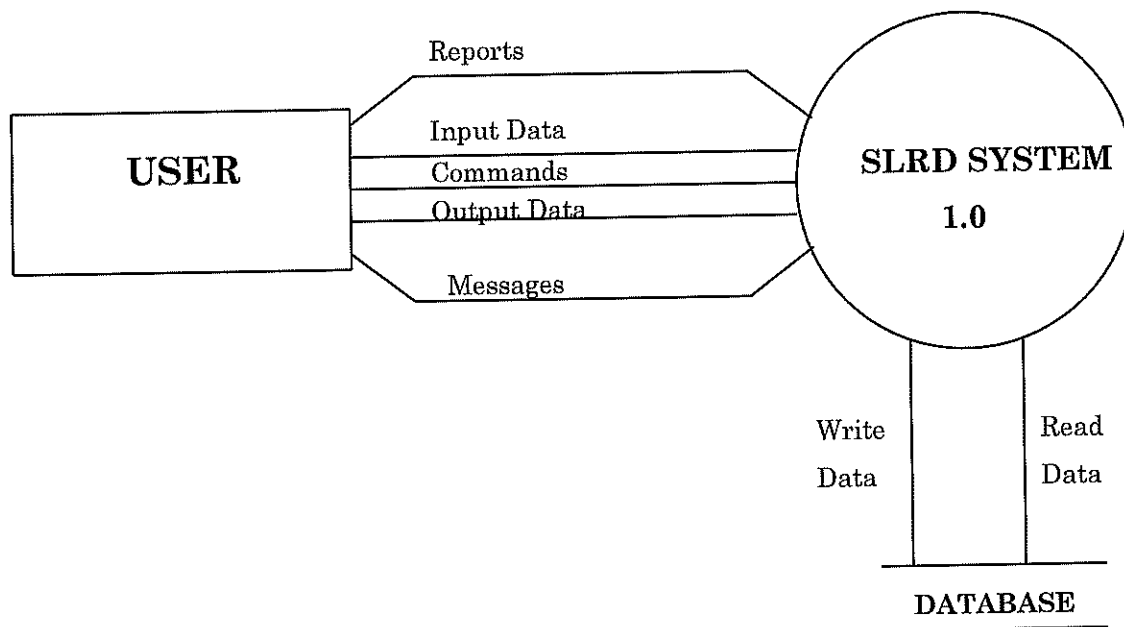
Figure 2. Level 1 DFD Context Diagram for SLRD
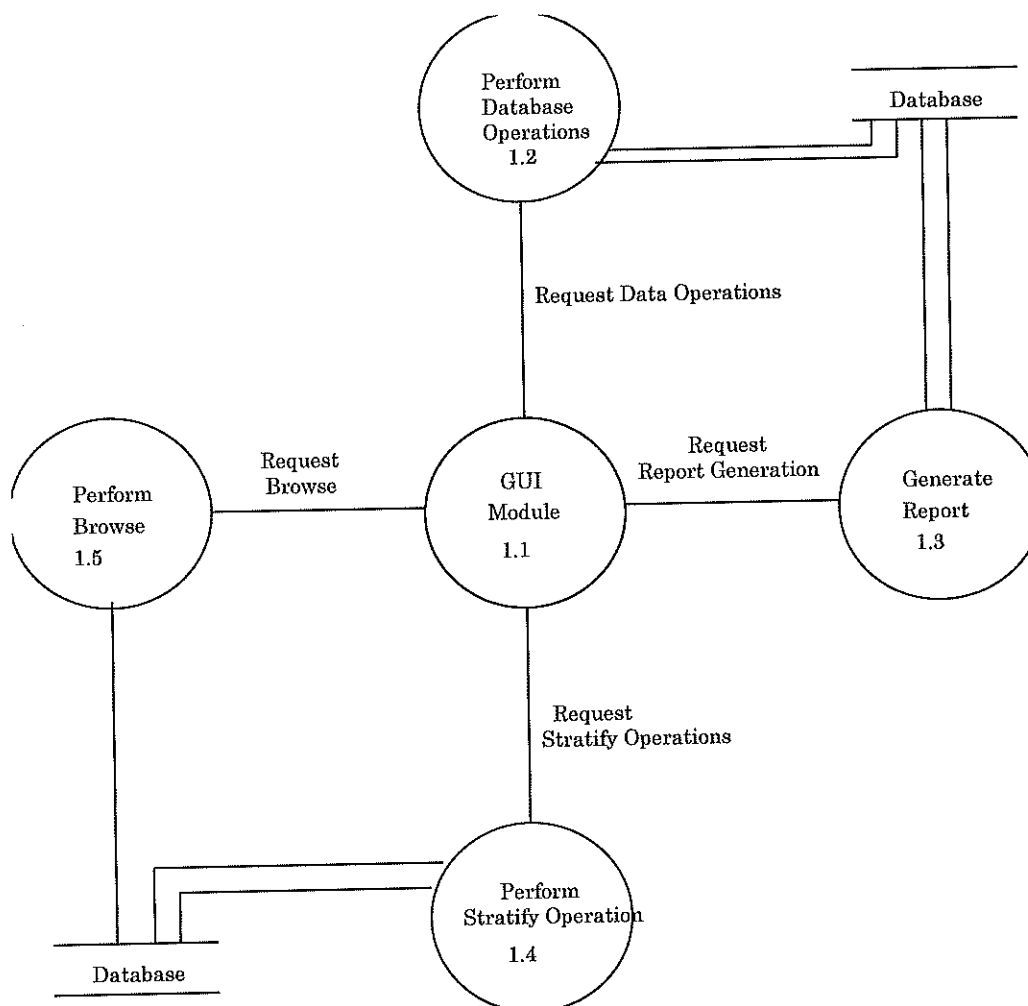
Figure 3. Level 2 Data Flow Diagram for SLRD

Request
Data Operation

Determine
Operation
Selected
1.2.1

Add Operation
Selected

Delete Operation
Selected

Edit Operation
Selected

Display
Forms, write
entered data
into database
1.2.2

Remove
Selected
Railroad
from database
1.2.3

Edit
Selected
Railroad,
Update database
1.2.4
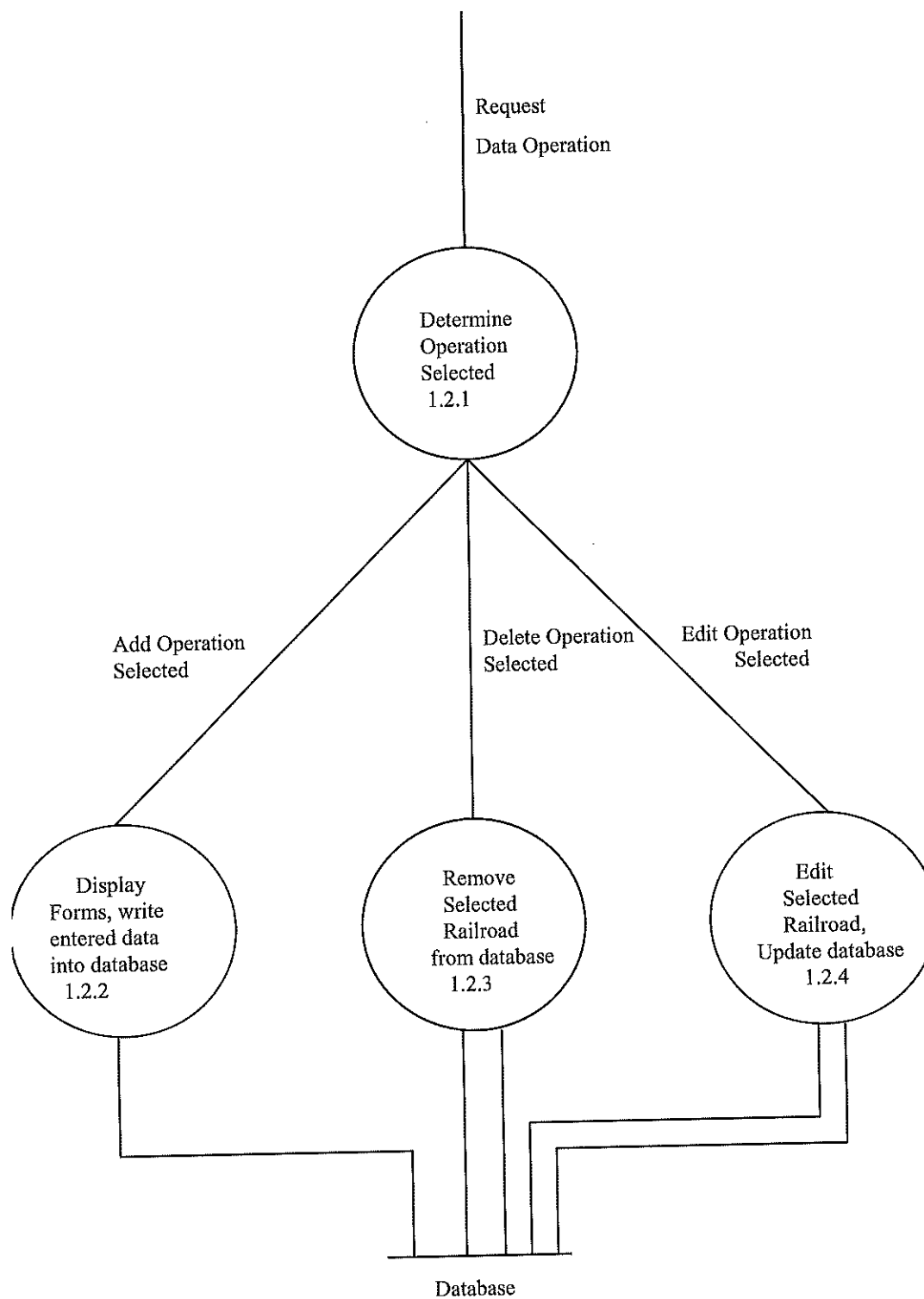
Database

Figure 4. Level 3 Data Flow Diagram for Database Operations

Browse

Display
Railroad
List
1.4.1

Request
Data on Selected
Railroad

Read Database
and extract
data on railroad
1.4.2

Database
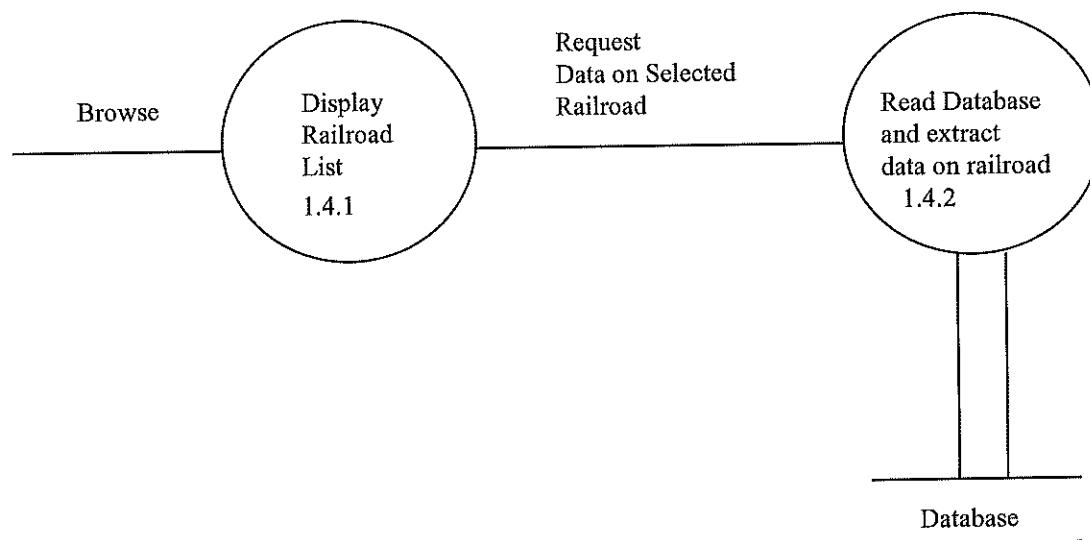
Figure 5. Level 2 Data Flow Diagram for Browse

ROADWAYS
State
Miles Owned
%age of owned
    track > 90 lbs
Miles operated
Rail Class
Miles of Road
    by Track class
Avg. Op. Speed

N   OWNS

1

RAILROAD
Name, Year

1   1   1   1   1

USES   HANDLES   SERVES   COLLECTS   CONTAINS

N   N   N   N   N

EQUIPMENT
Car/ Locomotive Type
Cars/Locos. Owned
Cars/ Locos. Leased
Cars/ Locos. < 10 yrs
Cars/ Locos. 10-20 yrs.
Cars/Locos. > 20 yrs.

CARLOADS
STCC Code
Carloads originated
Carloads originated &
    terminated
Carloads terminated
Bridge carloads

CUSTOMERS
Customer Type
Number of
    Customers

REVENUES
Gross op. revenue
Total op. Expenses
Net op. income
Current Assets
Current Liabilities
Net Working capital

GENERAL INFO.
Principal Owner
Total Cust. Served
Ties in Replacement
Rails in Replacement
Total Gallons of Fuel
Train Miles
....
....

Figure 6. ER Schema Diagram for SLRD

5.0 INITIAL RESPONSE AND FUTURE ENHANCEMENTS

5.1 Industry Participation

The Annual Data Profile survey was well received by the Short Line industry. About 475 paper and electronic data surveys were sent out to the industry. Two hundred and thirty one (231) responses were received for an excellent response rate of approximately forty eight (48) percent. Fifty-eight (58) railroads responded electronically, 25 percent of all responses. Additional railroads worked on the survey but did not send in a completed response.

The survey prompted various inquires from the industry and the FRA concerning the database. The FRA request was for information on the percent of projected capital investment for next five year period to be funded internally, and for the number of railroads and the number of customers.. The individual railroad queries from the industry were received by the American Short Line Association and included questions about hourly annual compensation for non-contract employees and hourly compensation rate for all employees. Two of the inquires about compensation requested information broken down by job title or position. The survey did not ask for wage information at this level of detail so the responses to these questions used the contract and/or non-contract employee information contained in the database.

5.2 Comments

The response from the industry about the survey itself was generally positive. Many comments, by phone and otherwise, were received stressing the importance and the potential of the Annual Data Profile. Many comments were also received with suggestions for improving the survey and the data entry software. The major suggestions for improvement included some form of help on the terms and data elements in the survey, and adding a print facility in the data entry software. The format of the financial data category was also a major concern and an area for suggested improvement. Comments from the industry are included in Appendix F.

5.3 High Level System Enhancements

5.3.1 Refinement of the Data Elements

In response to the first year of the annual data profile, the set of data elements should be refined. Comments and suggestions from the survey participants and the users of the data set should be incorporated into a revised data set. Particular attention should be given to the financial data and the employee and benefit categories. Several individual data elements need more consideration, such as the customers served and the rails laid in replacement, and the units involved in responding to various data elements need revision and clarification.

5.3.2 A Glossary of Terms and Context Sensitive Help for Data Entry

This would provide the user with help regarding the meaning of the data elements and what the ASLRA is expecting for data. Most of the questions regarding the survey, both the paper and electronic versions, concerned the interpretation of the data elements.

5.3.3 Advanced Query Functionality for the Central Database

This would provide the user with a more complete query system. The system should be able to respond to various types of queries. Currently, the system can respond to a set of predefined queries. While this set covers the major data elements, further development of a query mechanism would enhance the usefulness of the central database.

5.3.4 Report Generation from User-Specific Queries

This would allow the user the option of printing a report of their query. This enhancement is dependent upon the preceding enhancement.

5.3.5 DOS Version

A DOS version of DENTRY would encourage more railroads to respond to the survey electronically.

5.3.6 Electronic Transfer of Annual Profiles

This enhancement would provide an electronic means for transmitting the data profile to the central database.

5.3.7 Added DENTRY functionality

Various enhancements to the data entry program can be developed, including the addition of a print procedure as requested by many users.

5.3.8 Database Structure Refinement

Refinement of the underlying structure of the database. This will provide greater performance, greater database integrity, and will be easier to maintain at software and database levels.

5.4 DENTRY Program Improvements

5.4.1 Printing and Printer Management

An enhanced version of the program should include a facility to print the database. In addition, the Windows print manager could be invoked by the user allowing them to manage the printer while in the program.

5.4.2 File Management

There is no comprehensive file management facility in DENTRY. The program allows the user to copy the database to 'A' drive and 'B' drive but not to 'C' drive. It is advisable to allow the user to copy the program in any directory of his choice in the 'C' drive and other logical hard disk drives. The database also cannot be renamed and hence a highly desirable .Bak extension is not possible.

5.4.3 Aesthetics

DENTRY can be standardized to more closely look like other Windows database applications. The program would then under go a change in the menu and the form structures. Additionally, graphics and animation can be used to enhance the aesthetics of the software.

5.4.4 Data Management

All the text boxes can be made to universally to accept a wide range of appropriate data. The size of the database can be reduced by some efficient architectural changes thereby reducing the space requirements of the database.

5.4.5 Program Redesign

A refinement of the program design such that the program uses fewer system resources. In addition, features such as backing up the database in the event of an operating system failure and a DOS exit and return from within the program could be added.

5.5 The Central Database

5.5.1 File Management

This program is basically a file and data manager. The user should be able to view all the directories, file structures, and the system directory and the system files. All the drives in the system should be accessible to the user, allowing the user to view, edit, delete, print, copy and search the database from all the drives. The program itself should be able to migrate anywhere in the system, instead of being static in 'Wash' directory. The same holds true for the database.

5.5.2 Printer Management

The printer and the windows setup should be made available to the user.

5.5.3 Database Management

Intelligent algorithms and data awareness could added to the program capabilities. This could include a stratification algorithm.

5.5.4 Queries

There can be improvements to the query system. A QBE customized grid, which is more user friendly, could be developed allowing for a broader range of queries.

5.5.5 Remote Data Receiver

Remote data could be received and appended to the central database. A comprehensive electronic mailing capability could also be developed.

5.5.6 Reports

Reports, at both the standard and stratification levels, can be enhanced in numerous ways. For example, for a range of 'Total Carloads ' and 'Region' , one may want the number of railroads or name of railroads or just the rail type, or all of these. The stratification procedure can be developed into a powerful module based on the existing one. Reports could also be generated from user-specific queries.

5.5.7 *Miscellaneous*

The output from any of the function stated above can be sent to the printer, windows or other applications like MsWord, MsExcel or Lotus 1-2-3. The program can be modified to interface with most other standard applications in the Windows environment. Status bar, Tool bar and Tool Box can be designed and standardized to the program.

Appendix A

ANALYSIS OF 1993 DATA

The initial 1993 data are analyzed in this section of report. The data are still preliminary in the sense that all railroads did not respond to the survey. Furthermore, a standard glossary of terms was not included with the survey. Subsequent inquiries from railroad companies indicate that several terms were interpreted differently by several railroads, particularly financial and employee data items. Although some data elements were subjected to range checks, procedures for identifying out-of-range data items are still under development. Therefore, the results of the 1993 survey should be interpreted with some caution. Nevertheless, these initial data are useful in the sense that they provide a general picture of the industry and illustrate the distribution of investments and assets by region and type of railroad.

1.These classifications reflect 1990 definitions which may have changed or may change in future years.

Chemical, farm, food and lumber products are the largest customer commodity groups for

short lines across nearly all regions (Figure 1). However these groups barely comprise 50% of

the total customers served in all but one region. The exception, the Eastern region, finds

chemicals, lumber and food only comprising roughly 30% of the traffic base, with an

agglomeration of all other commodities comprising the remainder of the customer mix.
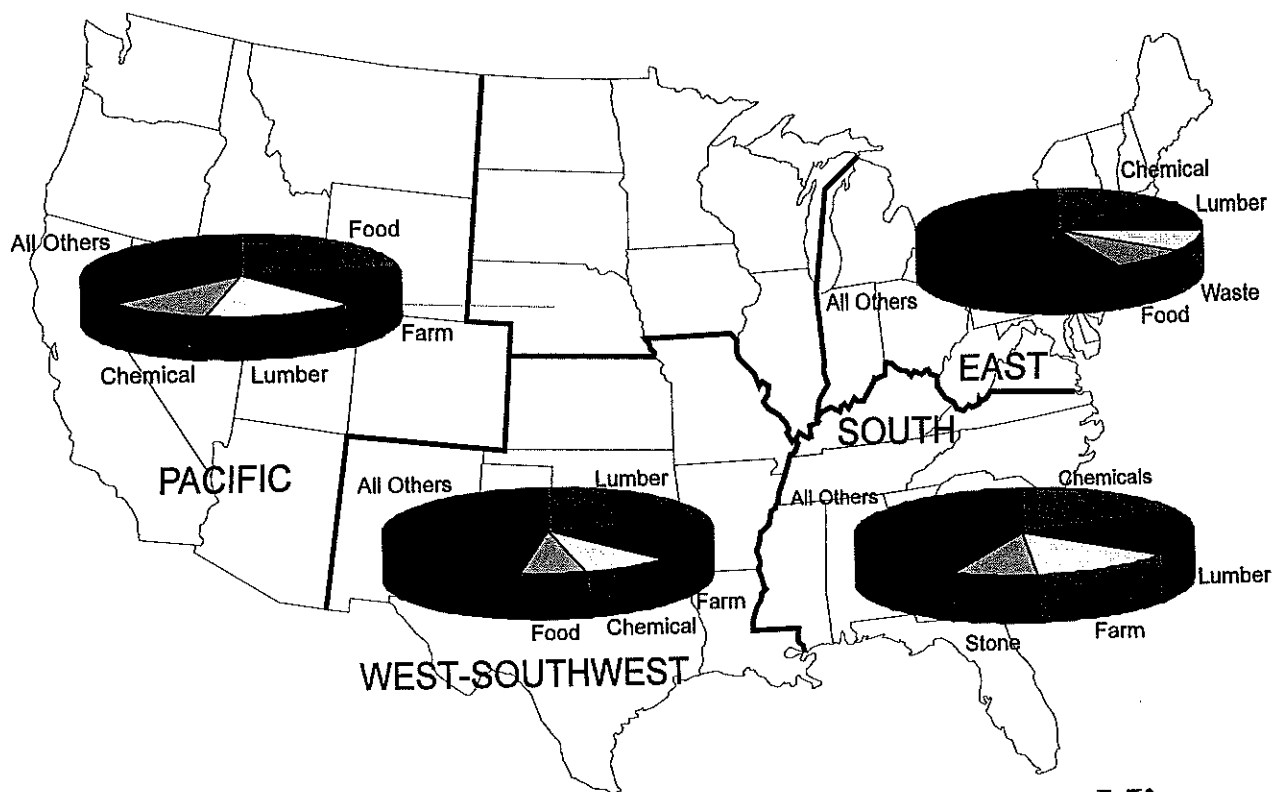
Figure 1: Short Line Customer Mix
By Region

Lumber customers represent the largest customer base for regional railroads, as shown in

Figure 2. The other traffic catagory, farm products, and chemicals comprise the other large

customer bases. Farm products represent the largest customer base for local railroads, followed

closely by chemicals, lumber and food products. Switching and terminal carriers seem to have

an evenly distributed traffic base over nearly all commodity categories.

Figure 2: Customers Served By Carrier

| Local-Linehaul | Regional | S&T |
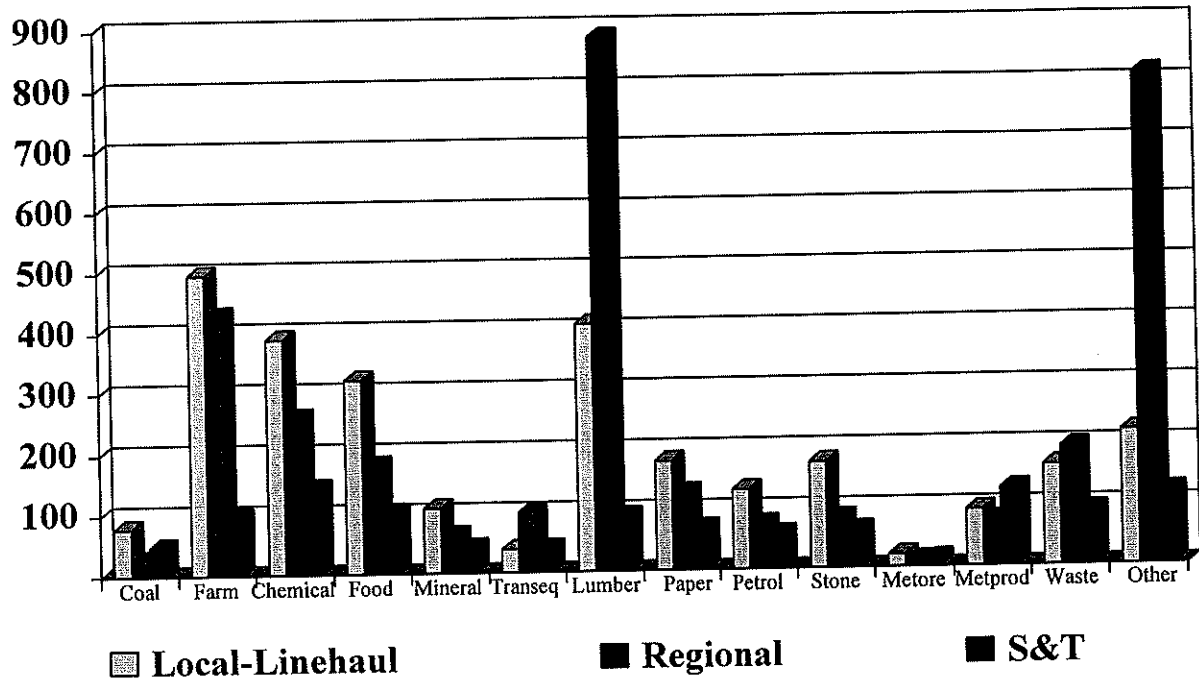
Figure 3: Total Carloads, East Region
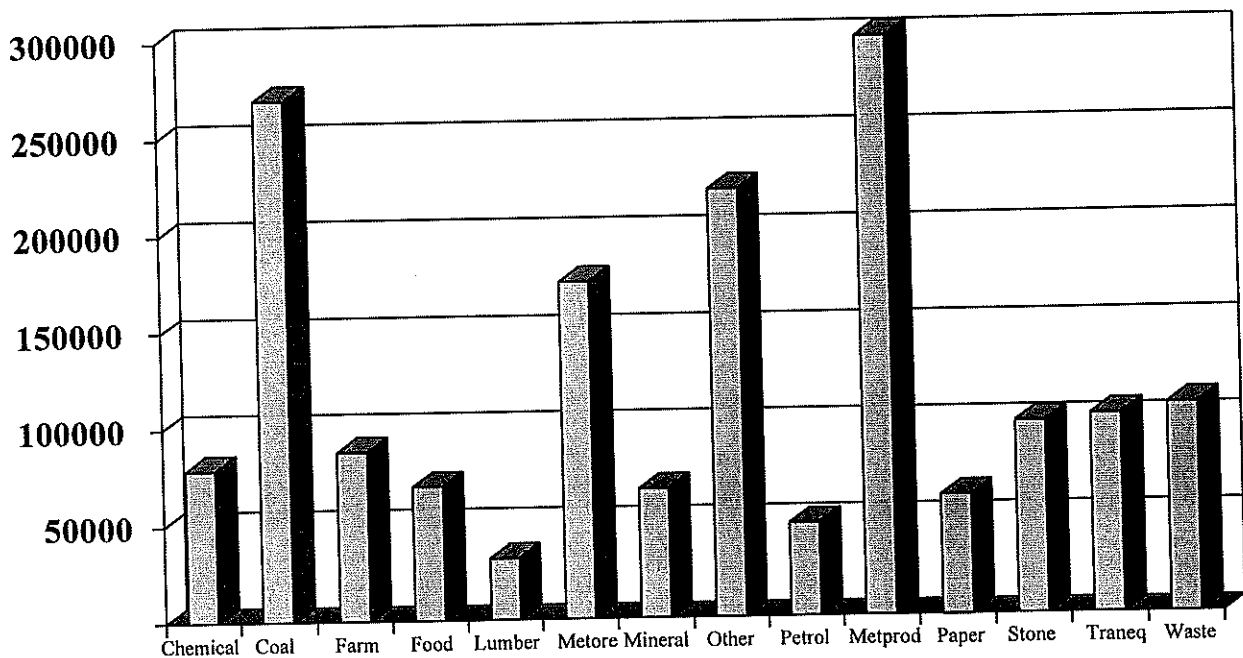
The comparison of Figure 3 with Figure 1 relates the Eastern customer conglomeration to traffic mix. Despite coal and metal related customers being a small percentage of the customer base, they are by far the largest traffic producers. Lumber concerns are the second largest customer base in number, but they comprise the smallest total percentage of traffic.

A similar situation exists in the Pacific (Figure 4) as metal ore and waste products represent the lion's share of the traffic base, but are a small percentage of the customer base. Lumber and farm products also represent large traffic volumes. Coal dominates the traffic mix in the Southern region (Figure 5), despite being attributed to a small number of customers. The remaining traffic mix is well distributed amongst the remaining commodities.

Figure 4: Total Carloads, Pacific Region
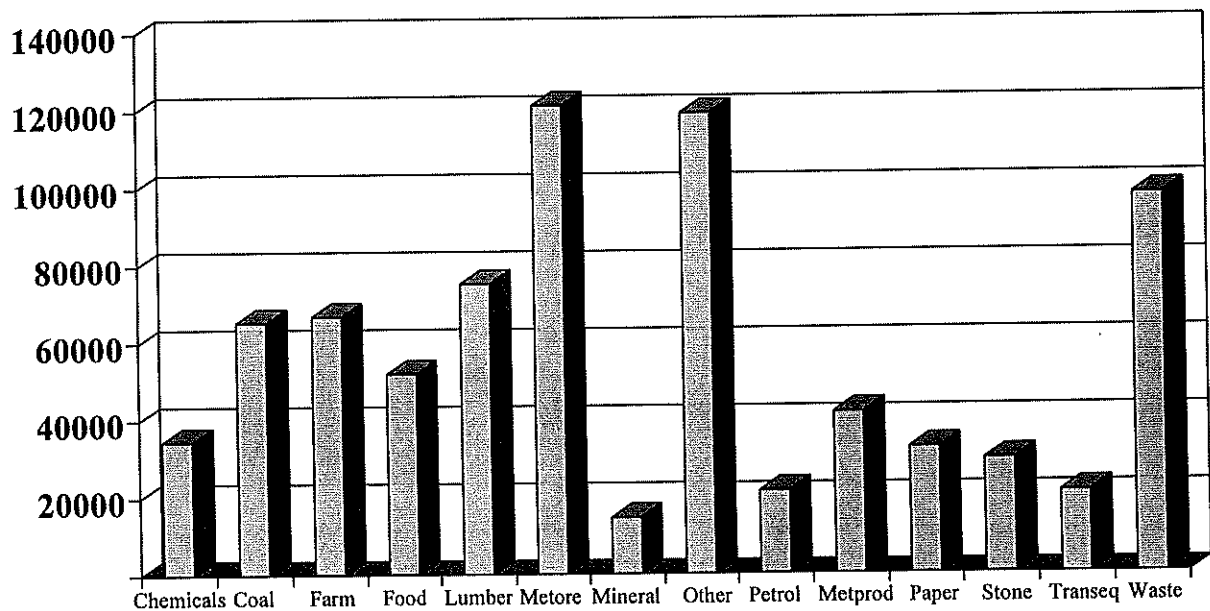
Figure 5: Total Carloads, South Region
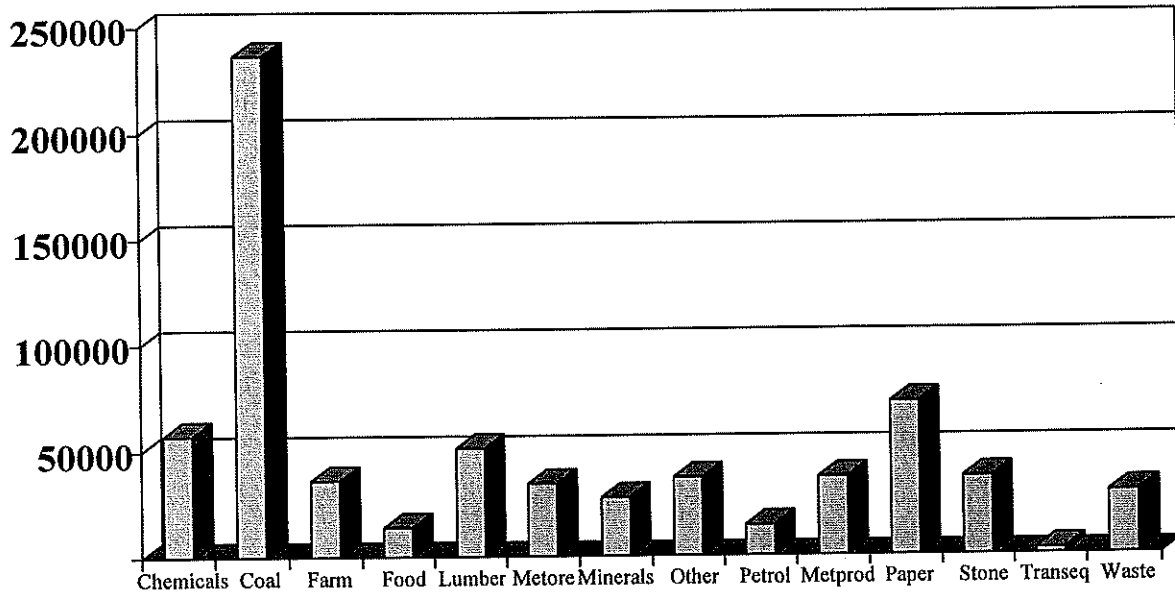
Though lumber customers have the largest customer representation in the West-Southwest, they contribute very little to the traffic base on a percentage basis (Figure 6). Farm products are the largest traffic base, followed by coal and paper; the latter not comprising a large percentage of the customer base.

Figure 6: Total Carloads, West/SW Region
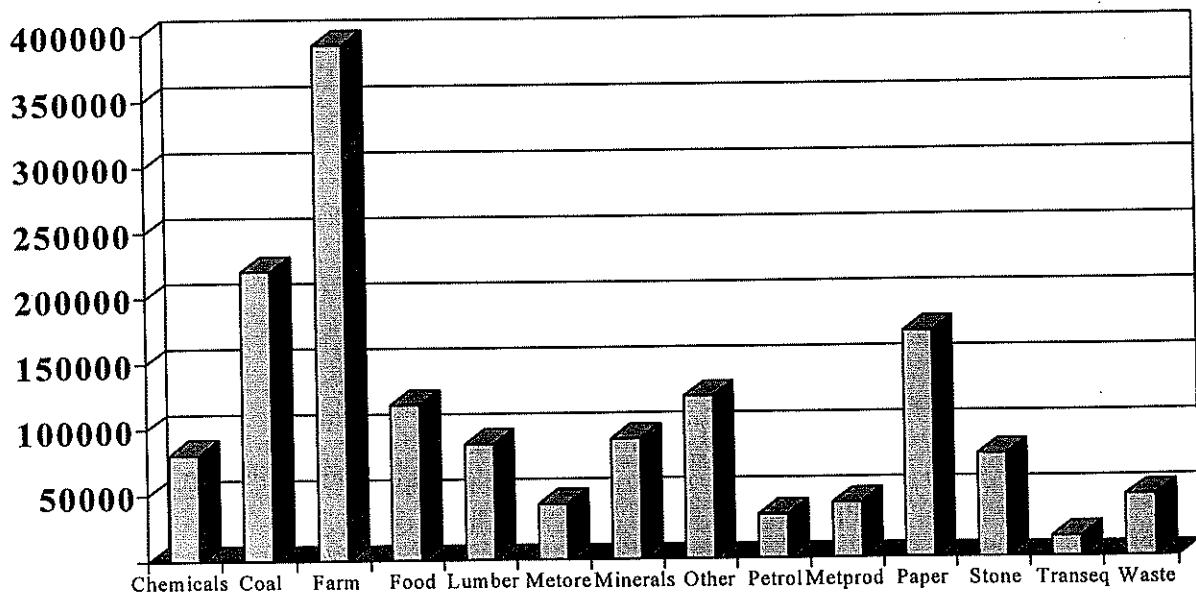
Comparing Figures 7 through 9 demonstrates a similar relationship across railroad classification. Coal customers provide the largest traffic volume for all carriers except switching & terminal railroads, but are the second smallest shipper group. Though lumber customers represent a large percentage of the local and regional railroads customer base, the traffic they generate is a very small percentage of the overall traffic base. Farm and paper products are important to the traffic mix for both local and regional railroads, but not for the switching railroads. Metal ore is well represented on both the locals and the switching railroads, but not the regionals.

Figure 7: Total Carloads, Local-Linehaul
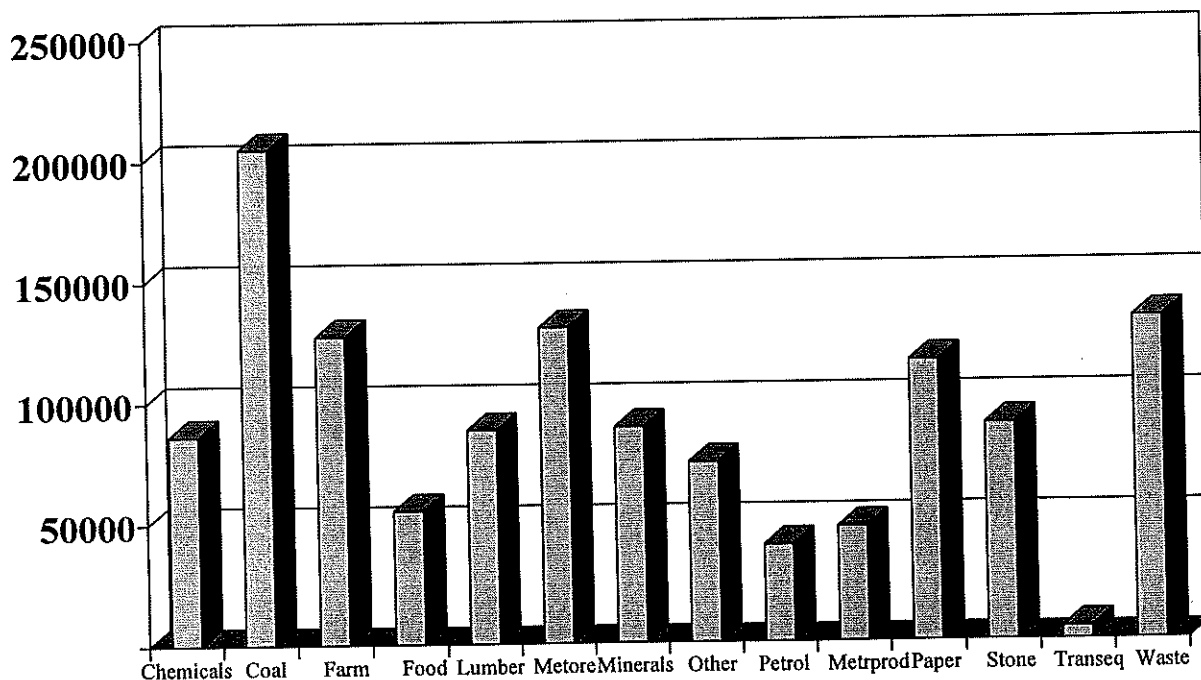
Figure 8: Total Carloads, Regional
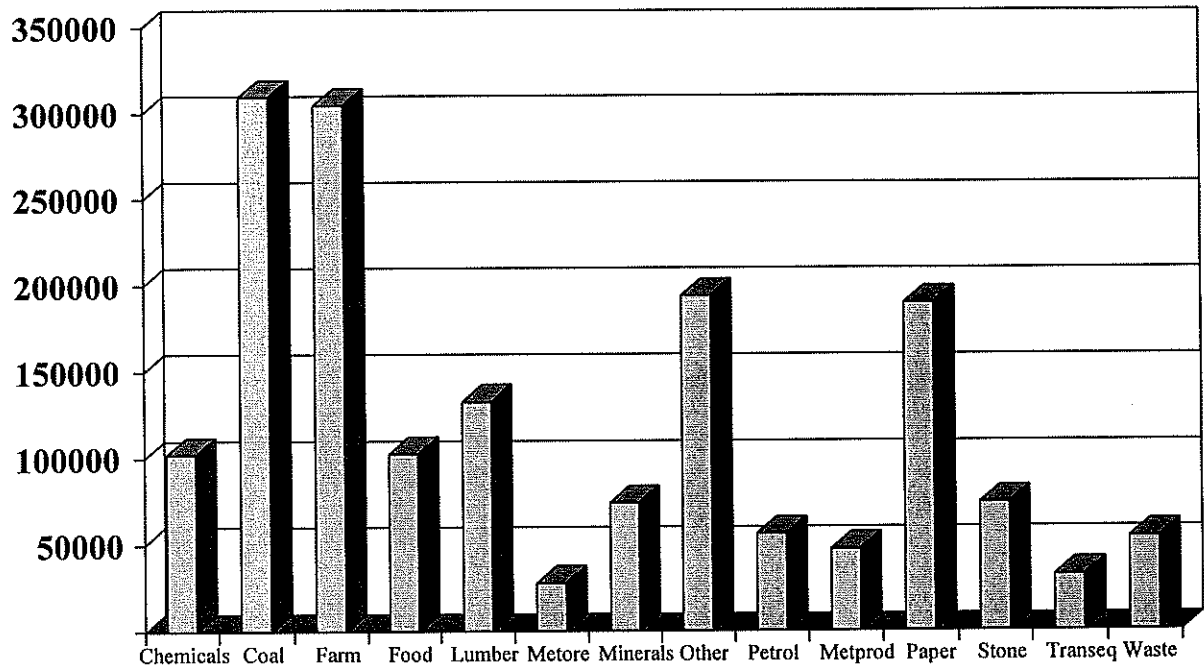
Figure 9: Total Carloads, S&T
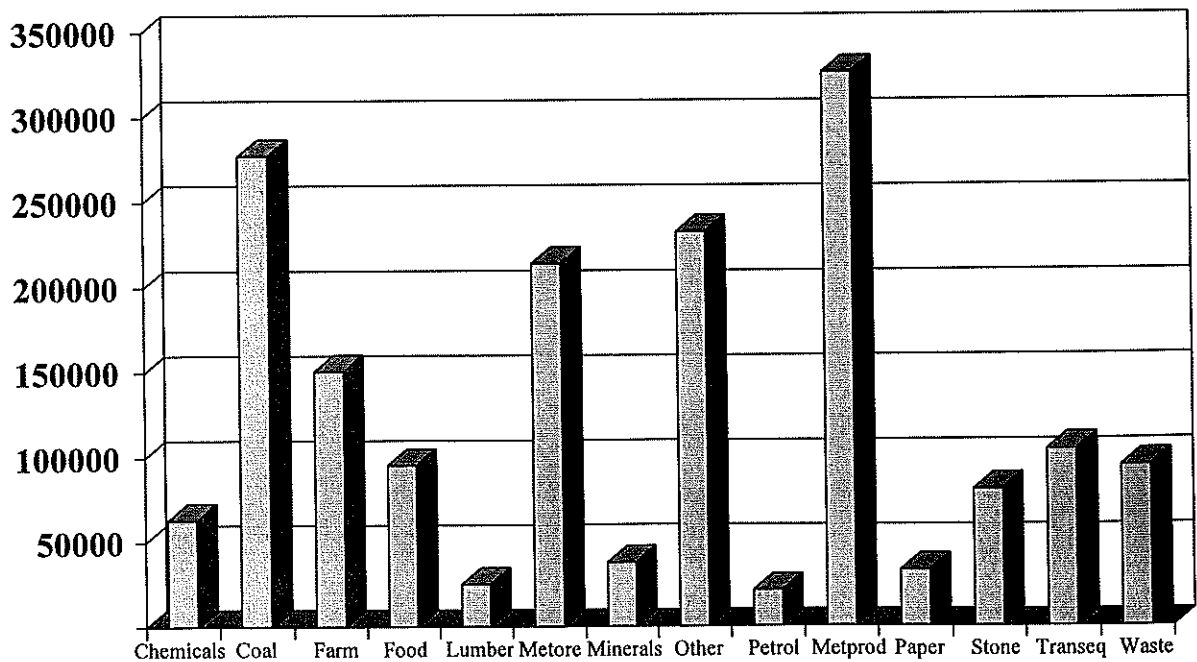
The amount of traffic moved by different types of short lines is relatively evenly distributed amongst the three carrier classes. Figure 10 shows that the switching and terminal railroads handled the most traffic (37% of the 4,738,642 carloads), while local railroads handled the least (27% of the 4,738,642 carloads accounted) by region. The Eastern short lines handled the highest volume of traffic at approximately 1.7 million carloads. The West-Southwest handled roughly 1.5 million, and the Pacific and Southern regions moved 792,000 and 685,000 cars respectively (Figure 11).

Figure 10: Total Carloads Handled by Type of Railroad

S&T

1,753,672

1,286,075

Local - Linehaul
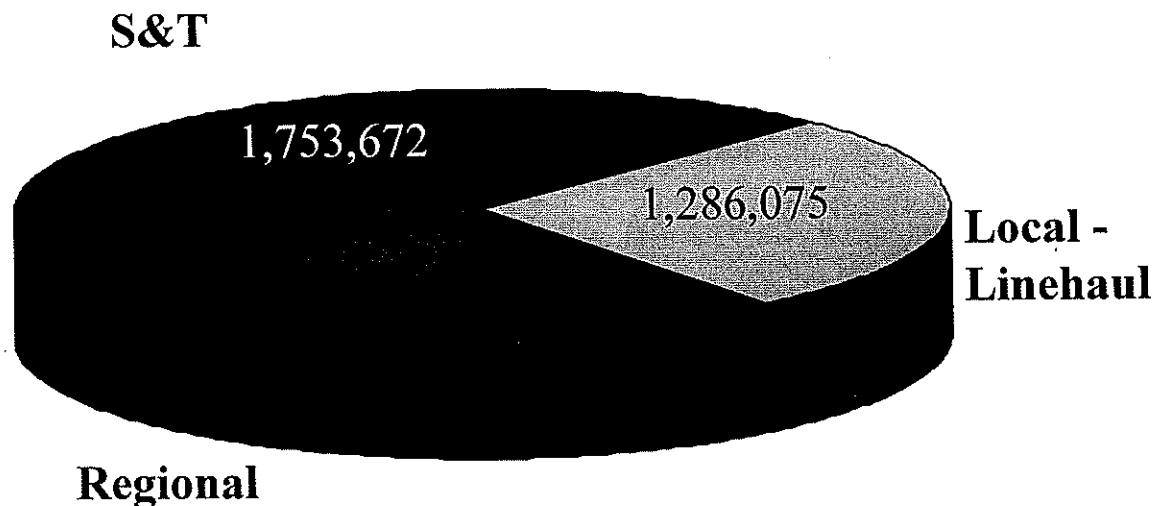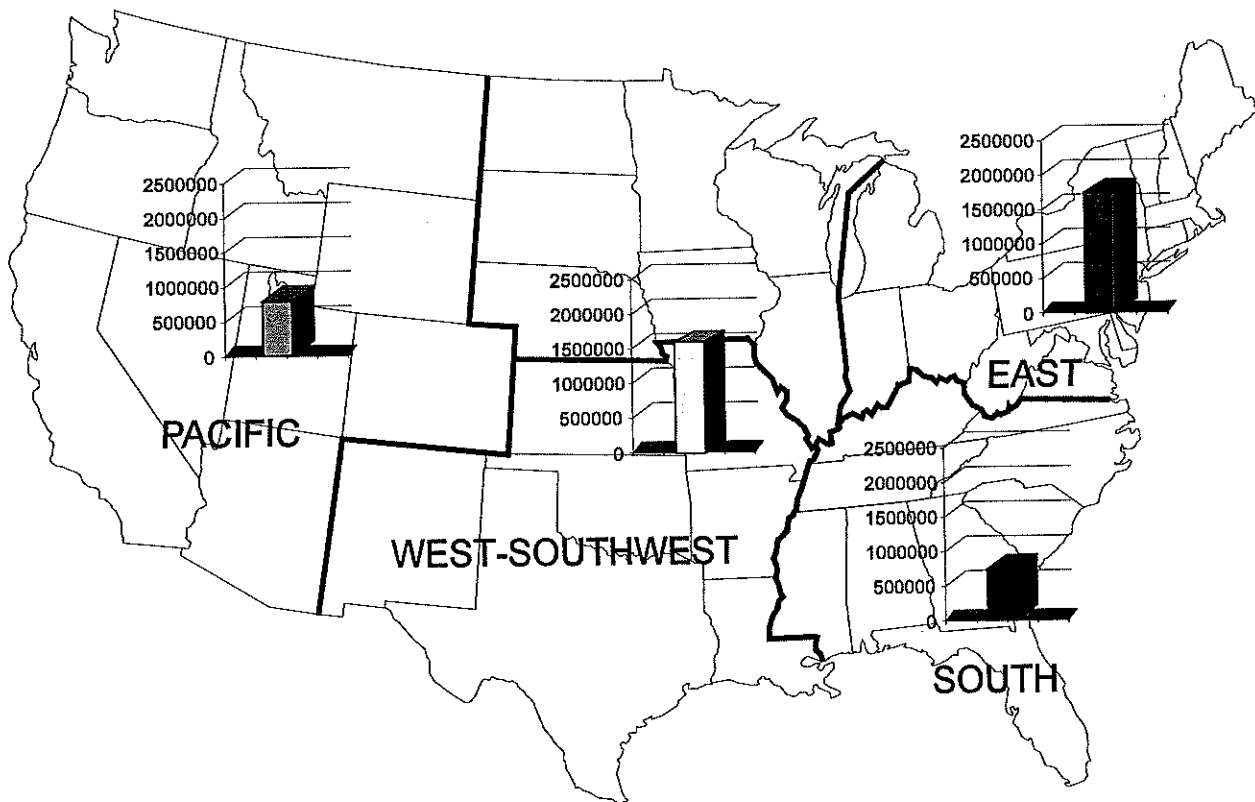
Regional

Figure 11: 1993 Carload Traffic
Total Carloads Handled,
Line Haul and S&T

Figure 12 shows that a large percentage of the Pacific region car-load traffic was interlined between two carriers. This contrasts with the Southern region where nearly all traffic originated or terminated on short line railroads. The Eastern region's largest movement type included traffic which both originated and terminated on the short line. Short lines in the West-Southwest had a mix of all traffic movement types.

Figure 13 shows an interesting relationship. While regional railroads act as an inter-line carrier much more often than to their line-haul counterparts, the local railroads have a larger volume of traffic both originating and terminating on a single railroad, despite being smaller in size (Figure 14).
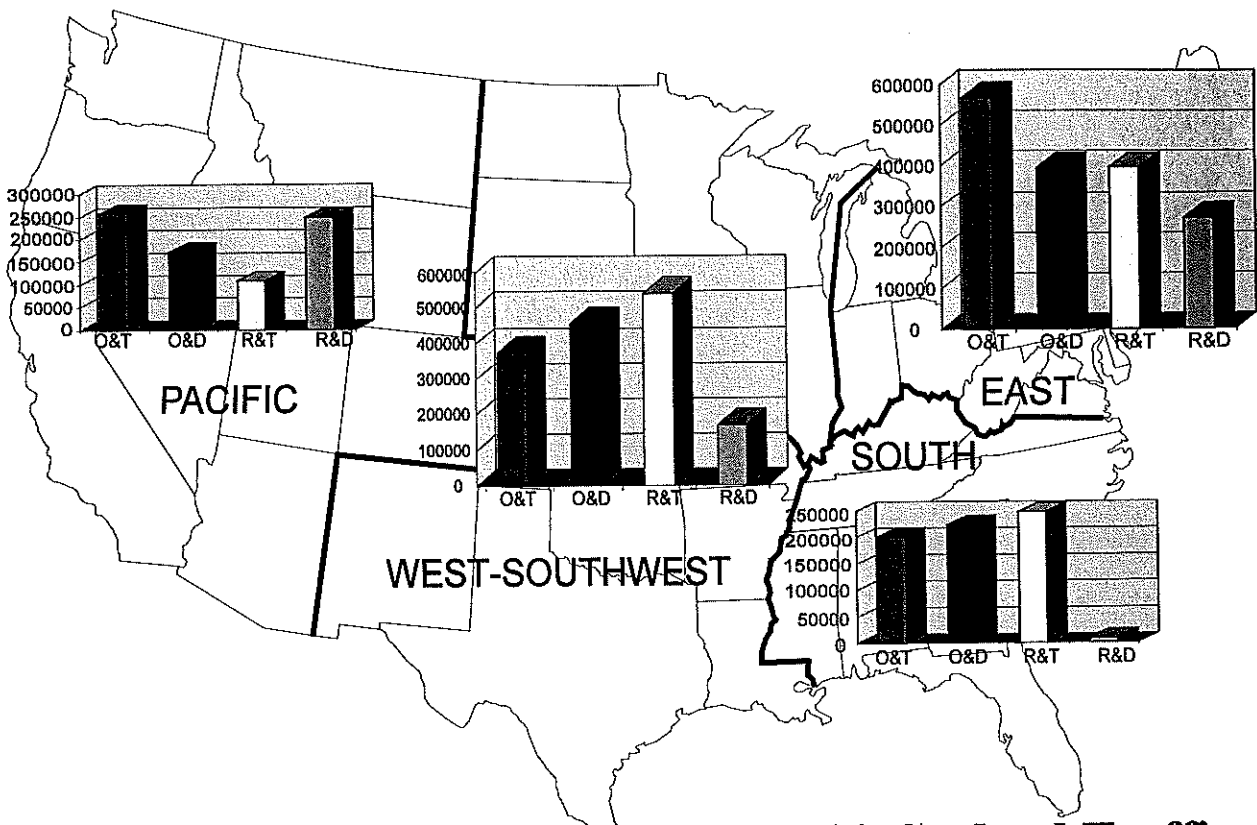
Figure 12: 1993 Carload Traffic
All Carriers, By Region

Figure 13: Carload Traffic by Type of Railroad
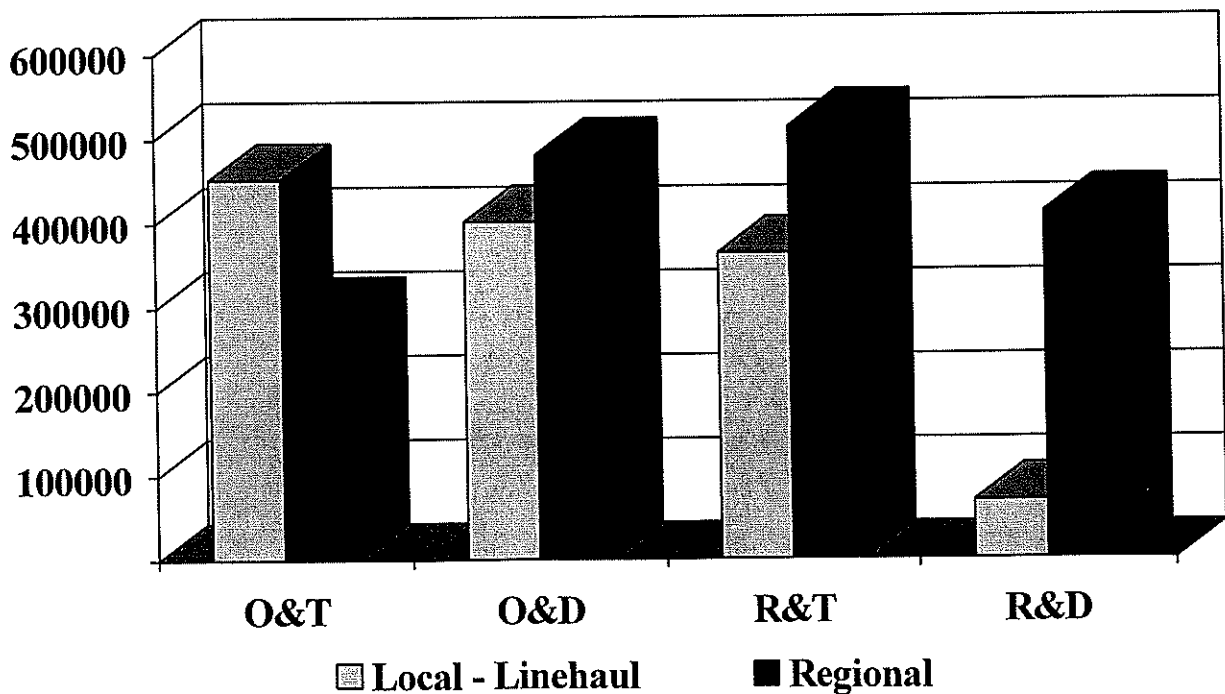
Figure 14: Carload Traffic: Local-Linehaul

R&T   R&D

363,708

401,417   452,045

O&T

O&D
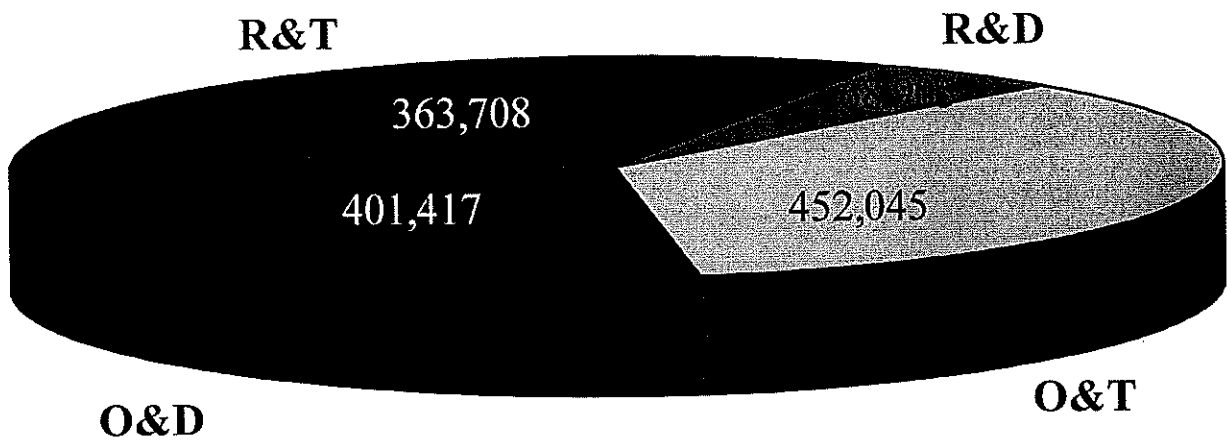
The amount of traffic delivered to other carriers by regional railroads is roughly equal to

the amount of traffic terminated on line. However, Figure 15 also shows that regionals originate

a slightly higher volume of traffic than they terminate. A quarter of this traffic is interlined

between two other railroads. This is in contrast to local railroads which interline very few cars

between railroads.

Figure 15: Carload Traffic: Regional

R&D

O&T

411,305

513,671   293,166

480,753

R&T

O&D
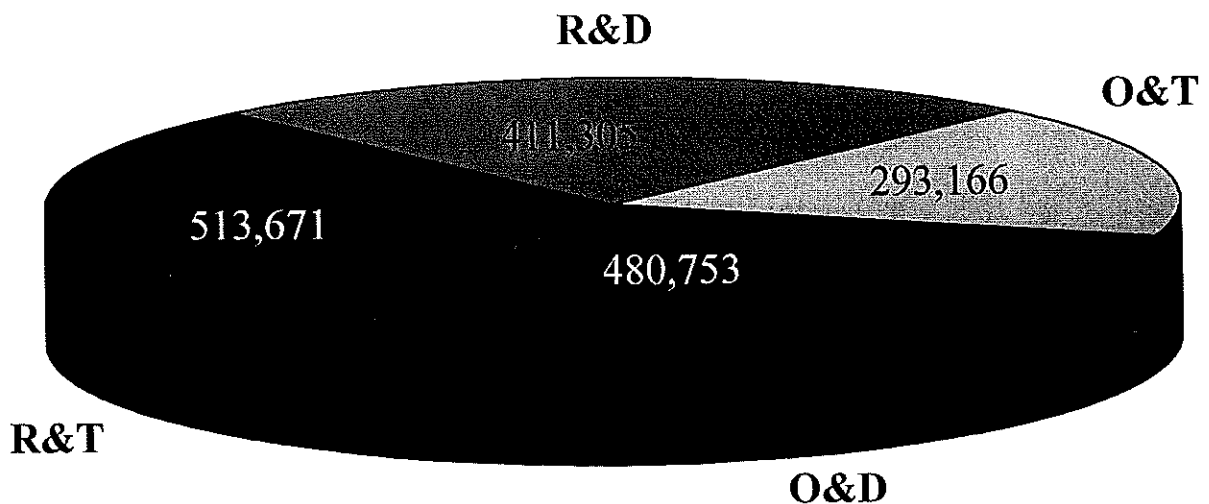
Figure 16 shows that the Eastern region has the largest amount of trackage owned by short lines, and the Pacific region has the least. One third of this mileage is in operation over railroad track laid with rail weighing less than 90 pounds per yard (Figure 17). This is in contrast to Class I railroads which operate 4.6% of their mileage with less than 90 pound rail. Local and linehaul railroads have the largest percentage of light rail, both as a percentage of local railroad track, and as short line mileage as a whole.
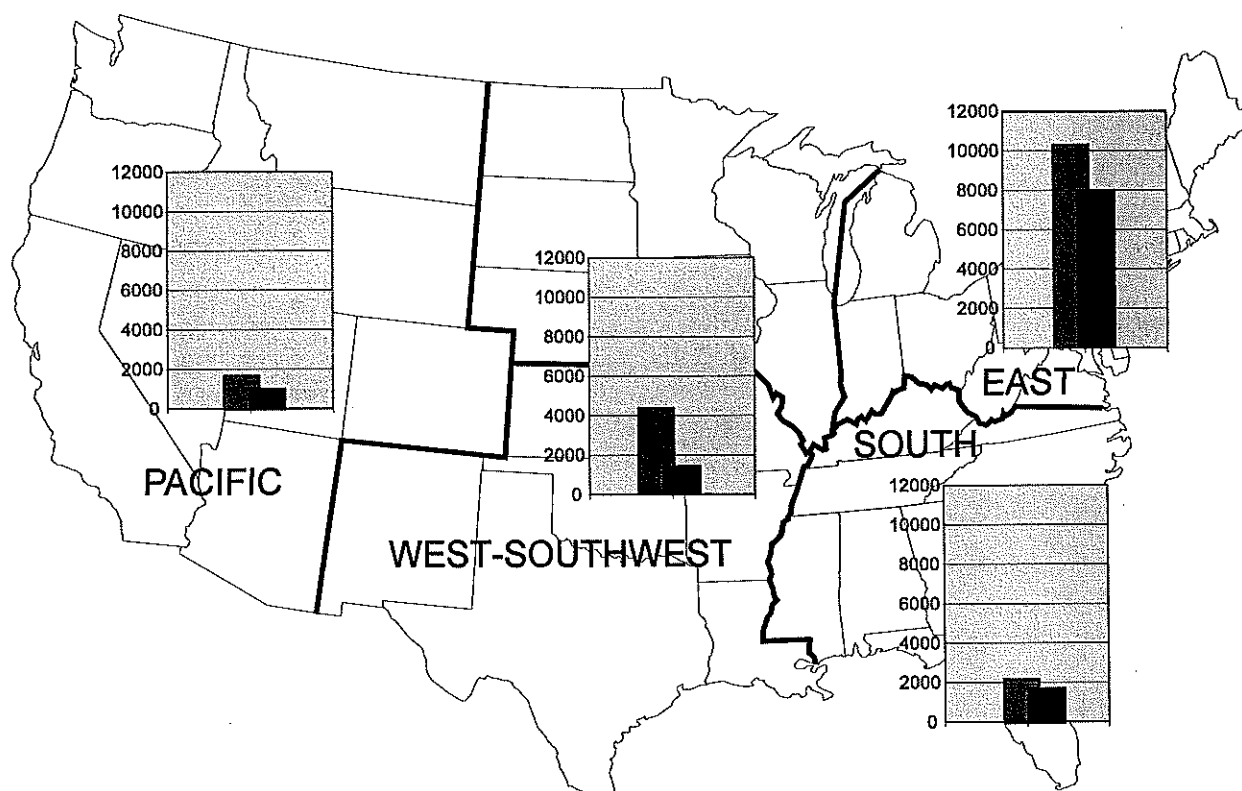
Figure 16: Miles of Road Owned
By Region

Only four percent of the 40,000 miles accounted for is considered excepted track by FRA Standards. Less than ten percent is FRA Class One. Sixty-six percent is Class Two, and twenty percent is Class Three or above. Track is operated at speeds 25% below FRA allowable speed limits, weighted across all track classes (Table 1).

Figure 17: Miles of Road Owned by Weight of Rail
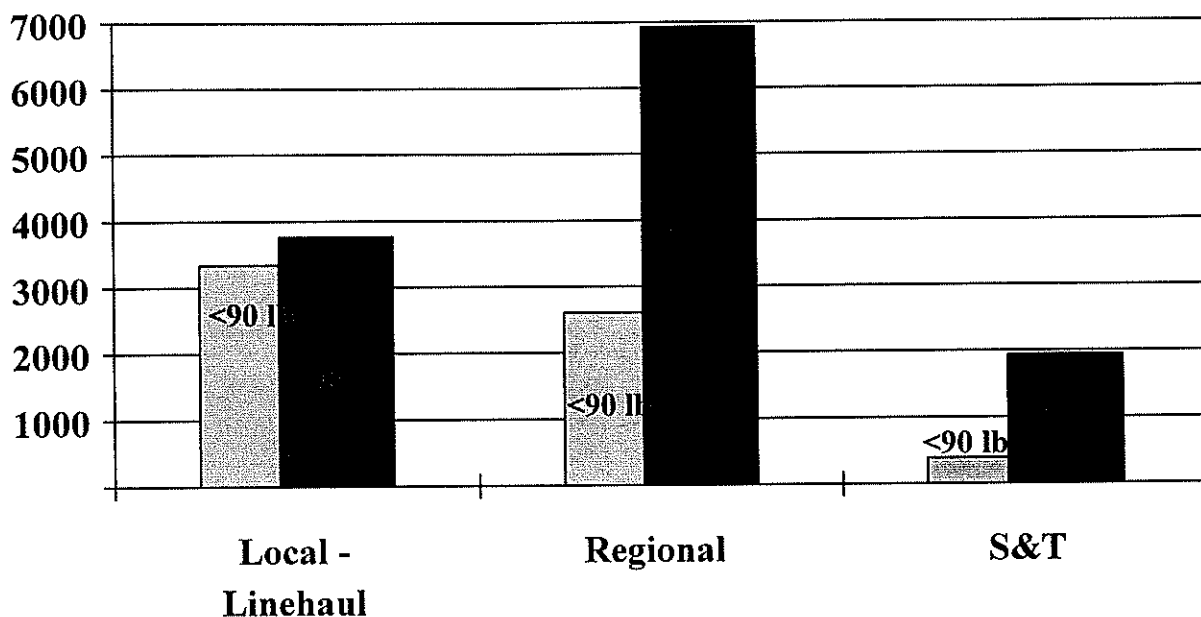
Table 1: Average Speed and Distribution of Miles of Road by FRA Class

FRA Class	Avg. Train Speed	% of Road Miles in FRA Class
Excepted	8.5	4
1	9.1	9
2	18.8	66
3	27.9	14
4	35.6	7

Table 2: Inventory of Bridges

Region	Concrete	Steel	Wood	Combination
East	213	982	334	209
Pacific	63	103	541	28
South	117	127	817	201
West/SW	311	1,096	1,915	608
	704	2,038	3,607	1,046

Although the West-Southwest has only fifteen percent of the total track miles owned by short lines, it has 53% of the bridges (Table 2). Timber bridges account for 49% of the total, with the Pacific region having 75% of their bridges being timber. Less than ten percent of the bridges are concrete, with the remainder being steel or a combination of materials.

Forty-six percent of all highway grade crossings are privately owned. Less than fifteen percent of all short line grade crossings nation-wide have automatic warning devices. The West-Southwest again has a disproportionate percentage of grade crossings with 38% (Table 3). Over twenty-six percent of all grade crossings in the Eastern and Pacific regions have automatic warning devices, compared to only four percent in the Southern region. Despite regional and switching railroads having over 28 percent of their crossings equipped with automatic warning devices, line-haul railroads, representing 62.5% of the grade crossings, have only six percent of their crossings equally equipped (Table 4).

Table 3: Highway Grade Crossings by Ownership & Signalization

Region	Public	Private	Automatic Warning Devices
East	3,186	1,739	1,313
Pacific	1,899	1,799	975
South	3,250	14,707	751
West/SW	11,383	5,023	3,192
	19,718	23,268	6,231

Table 4: Highway Grade Crossings by ownership & Signalization

Type of Railroad	Public	Private	Automati Warning Devices
Local-Linehaul	8,995	17,884	1,647
Regional	9,258	4,776	3,998
S&T	1,465	608	586
	19,718	23,268	6,231

New crossties accounted for over 77% of the gross number of ties replaced last year (Table 5). Almost half of all tie replacements occurred in the Pacific region, despite having the smallest percentage of track. Likewise, the Eastern region, with the largest amount of track, had the fewest tie replacements. Regional railroads accounted for 57% of all tie replacements (Table 6).

Table 5: Crossties Laid in Replacement by Region

Region	New Ties	Used Ties
East	148,366	40,107
Pacific	143,097	25,061
South	273,314	25,012
West/SW	416,530	195,104
	981,307	285,284

Table 6: Crossties Laid in Replacement by Type of Railroad

Type of Railroad	New Ties	Used Ties
Local-Linehaul	298,330	106,102
Regional	563,449	155,139
S&T	119,528	24,043
	981,307	285,284

The largest number of cars owned by local railroads are box cars, and the majority of these are leased (Table 7). Over 76 percent of all cars are 10-20 years old, with only 18 percent newer than ten years (Figure 18). However, over 80% of the local railroad locomotive fleet is over 20 years of age. Only five percent are less than ten years old. This is in contrast with 39% of all Class I locomotives being over twenty years old, and 22% being built in the last ten years (Table 8 and Figure 19).

Table 7: Local-Linehaul Railroad Freight Car Inventory

Car Type	Units Owned	Units Leased	Units <10 Yrs Old	Units 10-20 Yrs Old	Units >20 Yrs Old
Box Cars	1,871	8,604	931	8,621	852
Gondola	686	829	25	1,115	242
Covered Hoppers	1,103	1,629	50	2,363	321
Open Hoppers	448	741	55	565	481
Flat cars	1,744	707	33	964	1,397
All Others	103	894	0	905	99

Figure 18: Distribution of Linehaul Freight Car Age

Units >20
Years Old
17.83%

Units <10
Years Old
5.75%

Units 10-20
Years Old
76.41%
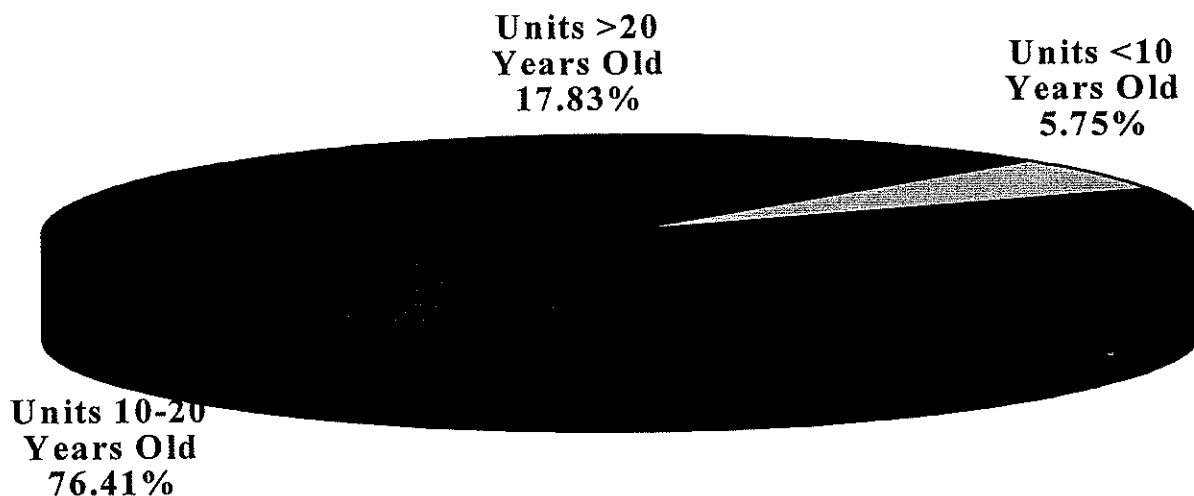
Table 8: Local-Linehaul Railroad Locomotive Inventory

Loco Type	Units Owned	Units Leased	Units <10 Yrs Old	Units 10-20 Yrs Old	Units >20 Yrs Old
<1000 HP	90	2	3	3	85
1000-2500 HP	363	124	12	66	406
>2500 HP	37	16	16	31	38

Figure 19: Distribution of Linehaul Locomotive Age

Units <10
Years Old
4.70%

Units 10-20
Years Old
15.15%

Units >20
Years Old
80.15%

Although box cars also account for the majority of freight cars controlled by regional railroads, regionals also own a large number of covered hoppers (Table 9). Yet unlike local railroads, 50% of all regional railroad owned cars are over twenty years old, and less than nine percent are under ten years old (Figure 20). Likewise, 90% of regional locomotives are over twenty years old, and less than two percent are consider in the newer category (Table 10 and Figure 21).

Table 9: Regional Railroad Freight Car Inventory

Car Type	Units Owned	Units leased	Units <10 Yrs Old	Units 10-20 Yrs Old	Units .20 Yrs Old
Box Car	2,655	5,887	750	3,786	4,005
Gondola	1,236	889	0	870	1,190
Covered Hopper	1,407	3,551	920	2,605	1,293
Open Hopper	1,736	1,081	110	992	1,715
Flat Car	992	997	0	397	1,522
All Others	473	172	0	155	490

Figure 20 :Distribution of Regional Freight Car Age

Units >20 Years Old 49.11%

Units < 10 Years Old 8.56%

Units 10-20 Years Old 42.33%

Table 10: Regional Railroad Locomotive Inventory

Loco Type	Units Owned	Units Leased	Units <10 Yrs Old	Units 10-20 Yrs Old	Units >20 Yrs Old
<1000 HP	17	1	0	0	18
1000-2500 HP	654	57	4	54	664
>2500 HP	175	17	8	35	149

Figure 21: Distribution of Regional Locomotive Age

Units <10 Years Old 1.29%

Units 10-20 Years Old 9.55%

Units >20 Years Old 89.16%
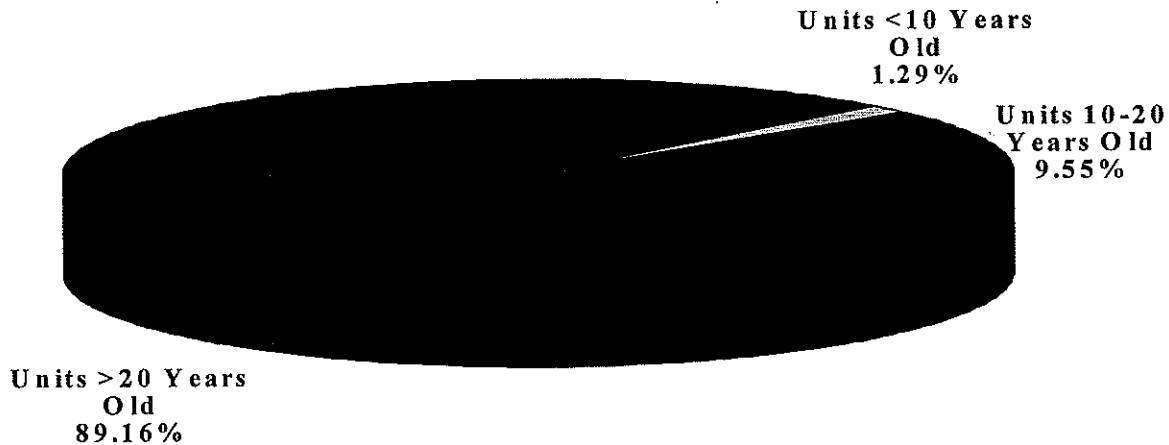
Switching and terminal railroads have a majority of gondola cars, with box cars and open hoppers rounding out the top three (Table 11). Ninety-nine and a half percent of these cars are over 10 years old, and two thirds of them are over twenty years old (Figure 22). Switching locomotives have a similar distribution with less than one percent being newer than 10 years old, and over 83% are over twenty years old (Table 12 and Figure 23).

Table 11: S&T Railroad Equipment Inventory

Car Type	Units Owned	Units Leased	Units <10 Yrs Old	Units 10-20 Yrs Old	Units >20 Yrs Old
Box Car	177	2,912	0	2,090	877
Gondola	2,429	1,658	0	1,154	2,517
Covered Hopper	26	919	60	743	142
Open Hopper	1,805	578	0	235	2,012
Flat Car	536	369	2	187	662
All Others	322	99	0	52	369

Table 12: S&T Railroad Locomotive Inventory

Loco Type	Units Owned	Units Leased	Units <10 Yrs Old	Units 10-20 Yrs Old	Units >20 Yrs Old
<1000 HP	94	0	2	0	92
1000-2500 HP	410	35	1	83	357
>2500 HP	22	0	0	0	22

Figure 22: Distribution of S&T Freight Car Age

Units >20 Years Old 59.26%

Units <10 Years Old 0.56%

Units 10-20 Years Old 40.18%

Figure 23: Distribution of S&T Locomotive Age

Units <10 Years Old 0.54%

Units 10-20 Years Old 14.90%

Units >20 Years Old 83.56%
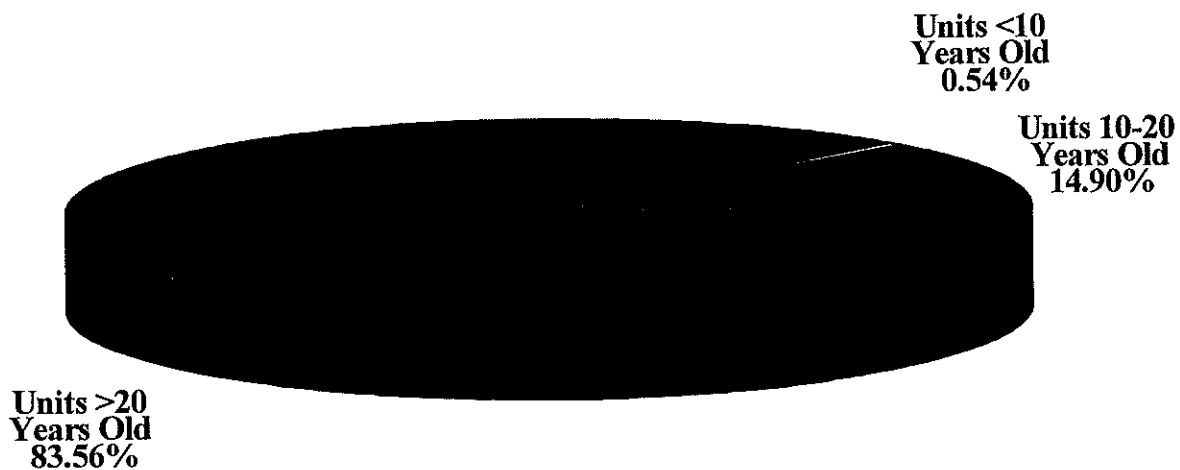
Transportation costs on short lines is roughly equal to that of Class I's, accounting for 39% of short line expenses versus 43% of Class I expenses (Figure 24). Equipment costs only account for 15% of short line costs versus 26% for the large railroads. Way and structures costs account for 16% of the short line budget, versus 18% of the Class I dollar. However, general administration costs of short lines are nearly 21%, with another 9% accounted for as 'other', while it comprises only 13% of the Class I costs of operation.

Figure 24: Distribution of 1993 Railway Operating Expenses

General & Administration 20.81%

Other 9.35%

Way & Structures 15.76%

Transportation 39.29%
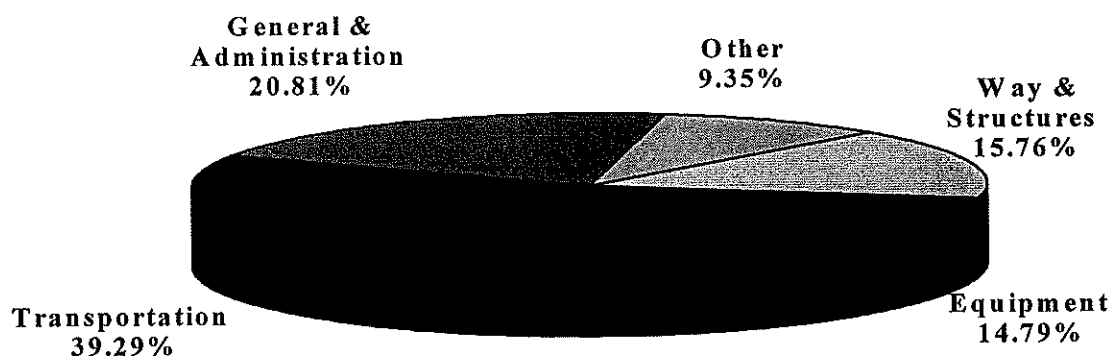
Equipment 14.79%

Less than five percent of the maintenance of way expenditures were applied to bridge structures in 1993 (Figure 25). Of the equipment costs, 45% is attributed to locomotive expenses, and 35% to freight cars. Short lines spend 67.3 million dollars on road expenses in 1993, and 42.1 million on equipment. An additional 20.3 million was spent on other concerns (Table 13). It is projected that this capital investment will be 98.6 million dollars over the next five years for road maintenance, and 70.9 million for equipment (Table 14). Over 30 million has

been targeted towards other capital projects not classified as road or equipment investments.

Sixty-two of this investment is expected to be internally funded by short lines (Table 15).

Figure 25: Distribution of 1993 Way & Structures Expenses

Bridges
4.89%

Way
95.11%
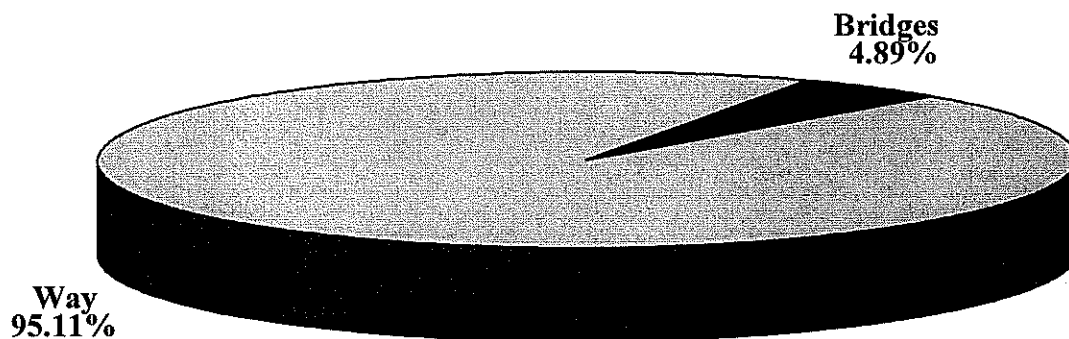
Table 13: 1993 Capital Expenditures

Road	$ 67,336,312
Equipment	$ 42,121,392
Other	$ 20,252,383

Table 14: Projected Capital Investment for Next 5-Year Period

Road	$ 98,649,664
Equipment	$ 70,884,427
Other	$ 30,780,300

Table 15: Percent of Capital Investment Internally Funded by Railroads

Road	61.27 %
Equipment	63.13 %
Other	63.98 %

Short lines accumulated 20.9 million train miles in 1993 (Table 16). The class I railroads grossed 405.4 million. Dividing the 32.7 million locomotive miles by the train miles, the short lines averaged just over 1.5 locomotives per train. The average length of haul was just 29.15 miles, versus 794.2 for the large railroads. The short lines consumed 79.4 million gallons of fuel, while the large railroads utilized 3.08 billion gallons (Table 17). In total, 12.45 million man-hours where used to keep short line running in 1993 (Table 18).

Some general information on employee benefits are shown in Table 19.

Table 16: 1993 Annual Line-Haul Operating Statistics

Train Miles	20,973,933 miles
Locomotive Miles	32,720,752 miles
Average Length of Haul	29.15 miles
Average Revenue / Carload	$ 196.00

Table 17: 1993 Fuel Consumption

Total Gallons of Diesel Fuel Consumed	79,402,539
Average Cost per Gallon	$ 0.62

Table 18: Employment Statistics by Railroad Type

Railroad Type	Employees	Man-Hours
Local-Linehaul	1,680	3,202,415
Regional	1,340	2,987,077
S&T	2,970	6,261,004

Table 19: Employer Contribution
to Heath Plans

Railroad Type	Single Medical	Family Medical	Single Dental	Family Dental	Single Insur.	Family Insur.
Local-LH	66.6%	62.89%	59.8%	47.8%	60.6%	23.0%
Regional	68.9%	65.2%	58.7%	31.1%	66.7%	33.3%
S&T	51.4%	60.8%	45.3%	49.7%	53.9%	29.7%

Appendix B.

1993 DENTRY
Data Entry Software
Documentation

ASLRA
Software Installation and User's Guide
for

DENTRY

The Annual Data Profile
Data Entry Software
Version 1.0

April 1994

Developed by the
Upper Great Plains Transportation Institute
North Dakota State University
Fargo, North Dakota

I.   Introduction

DENTRY is a data entry program to facilitate the data gathering requirements of the American Shortline Railroad Association Annual Industry Profile. It is a Windows-based program that provides the user with a series of data input screens allowing users to efficiently fill out the annual data profile for their railroad. The program has Windows functionality and creates an electronic database file containing the annual data profile, which is forwarded by the user to the appropriate database manager. After inputting the data, the user copies the database onto a floppy disk and sends the disk to the database manager. A floppy disk mailer has been included in this release to facilitate sending in the electronic database file.

II.   Installation

The program is installed by performing the following steps:

1.   Start Microsoft Windows
2.   Insert the Annual Data Profile disk in drive A: or B:.
3.   From the Program Manager, select the File menu and choose Run.
4.   Type A:\setup and press enter.
5.   Follow the setup instructions including setting up C:\Dentry as the program directory.

The setup procedure will install DENTRY on your hard drive in the directory C:\Dentry.

The hardware requirements for DENTRY are a 386 computer with 5 MB of hard drive space. A 486 computer running Windows 3.1 is recommended.

The program was developed to meet the mach32 display device driver in the Windows setup. If other display device drivers are used in the Windows setup, the program screens may not fill the maximum Windows display area.

III.   Running the Program

General Instructions

The program is a Windows program. It utilizes the mouse or the keyboard to choose menu options, data entry input boxes, and command buttons. The user may click the mouse on the desired function or input box to activate that event. Alternately, the keyboard can be used to choose program functions or to navigate data input boxes. The tab and enter keys can be used to move around a data input screen. The user needs to type in the data and may use the mouse or tab key to move to other input boxes on the data input screen.

Starting the Program

The program is started by clicking on the DENTRY icon in the DENTRY program group. The introduction screen first appears; the user needs to click on the CONTINUE command button to get to the main program menu screen. There are two parts to the program, 1) the main program and 2) the data entry module.

Main Program

The main program screen appears with a menu bar at the top of the screen. The menu selections control the main program and are:

Data Entry

This program menu option activates the data entry portion of the program. Selecting this option presents the user with the main menu screen of the data entry module.

Open

Open can be used to open an existing data record in the program's database. The data record appears in the selection box as a railroad name and may be opened by double clicking on the railroad name.

About

About contains a brief description of the DENTRY program.

Window

The user can arrange the windows on the screen with the options presented in the Windows submenu.

Save

Save writes the current data in the data input screens to the Short-Line Railroad (SLRD) database. The database name on the user's hard drive is C:\Dentry\slrdbase.mdb. Save is activated after a data entry screen has been opened. The Save command button performs the same operation and is active under the same conditions.

Save As

This main program menu option allows the user to copy the database to a floppy disk in drive A: or B:. This option is useful in making a copy of the database on floppy disk to send to the database administrator. The database file is first saved to the hard drive and then to a floppy disk in the selected floppy drive (A: or B:).

Exit

The Exit menu command exits the program.

These main program menu options are highlighted when they are available and are generally available during the entire program.

Data Entry Module

There is a series of command buttons used by the main menu screen of the data entry module. A brief description follows:

Save

The Save command button appears only on the main menu screen of the data entry program and saves the database to the database file C:\Dentry\slrdbase.mdb. The user will be informed of a successful Save operation.

Clear

This command button on the main menu of the data entry program clears or erases all entered data on ALL data entry screens or forms. The user will be prompted before Clear erases all the data entry screens.

Exit

The Exit command button on the main menu screen of the data entry module exits the data entry module only.

There is a series of command buttons used by the data entry input screens. A brief description follows:

Main Menu

This command button returns the user to the main menu of the data entry module.

Clear

The Clear command button on each data entry input screen clears or erases the data entered on just that form or screen.

Next

Next takes the user to the next data entry screen if there is another input screen in that data category.

Previous

Previous returns the user to the previously used screen in the data category.

IV. Data Entry

The data entry module has two major sections. The first is the main menu screen asking the user to provide basic railroad identification information and displaying a selection of data categories. The second section is the data input screens which are accessed by making a selection under the data categories. These two sections are described below.

Main Menu Screen

Basic Railroad Identification Information

The user must enter all the required basic railroad identification information on the main menu screen of the data entry program. This information must be entered before any other data is accepted by the program. The identification information required is:

Railroad Name: Please enter the official Railroad Name.

Principal Owner: Please enter the name of the Railroad's Principal Owner.

Year: Please enter the year of the data. If the data is for 1992, please enter 1992.

Railroad Type: Select a railroad type from the list box. The user may click on the arrow to select a railroad type. Clicking on a selection chooses that railroad type.

Data Categories

The user enters the railroad's annual data profile in the data categories. There are several categories of data displayed and the user selects a data category to activate the data input screens.

The data categories are:

Number of Customers Served. The user is asked to supply the number of customers served by commodity group.

Inventory of Roadway, Track, and Structures. In this category the user supplies information concerning the railroad's roadway and other physical structures.

Equipment Inventory. The equipment inventory sections asks the user to enter data on the equipment used by the railroad.

Annual Operating Statistics. The user is asked to supply carload statistics for their annual operations and to supply other operational data.

Financial Data. This section prompts the user to enter financial information about the railroad. It is broken down into several categories.

Employee and Benefit Data. This category asks the user for employee related information.

Passenger Services. The final data category questions the user about passenger services.

Data Input Screens

The data input screens contain a series of input boxes where the user enters the appropriate data. Moving among the input boxes may be done by using the mouse, the tab key, or the enter key. Data is entered with the keyboard and is accepted by the input box after the mouse cursor is moved from the input box or the tab or enter key is pressed. Data may always be saved by using the Save option on the main program menu bar. There are built-in data type checks throughout the program to prevent the user from entering inappropriate types of data. All data must be entered with the enter key or the mouse cursor must be moved from the input box in order to enter the data into the database.

V.   Instructions for Sending in Data

1.   Use the SAVE AS option on the main program menu bar to copy the database to a floppy disk in drive A: or B:. The floppy will contain a file called slrdbase.mdb. This file should be sent to the database administrator. The database is compacted and encrypted with the Save As command.

2.   Use Windows or DOS to copy the database to a floppy disk. The database is named slrdbase.mdb and is in the C:\DENTRY directory. The complete path name and filename is C:\DENTRY\slrdbase.mdb. After completing the data entry program the user must copy this file to a floppy disk and send it to the database manager.

VI.   Example of a User Inputting Data

1.   Start the program by clicking on the DENTRY icon in the DENTRY program group.
2.   Click on the CONTINUE command button of the introduction screen.
3.   If the user has already inputted and saved some data, the OPEN menu selection may be used to recall the previously entered data. If this is a new data input record, click on DATA ENTRY to start the data entry module.
4.   Enter the required basic railroad identification information.
5.   Choose a data category to input data.
6.   Repeat step 5 until all data is entered.
7.   Save the data with the SAVE menu selection or the SAVE command button.
8.   The user may use the SAVE_AS menu selection to make a copy of the database on a floppy disk for sending to the database administrator. Alternatively, a Windows or DOS operation may be used to make a floppy disk copy of the database.
9.   Exit the data entry module and/or the program.
10.   Send the database on the floppy disk to the database administrator.

Participating Railroads
in the
1993
American Shortline Association
Annual Data Profile

ABERDEEN AND ROCKFISH RAILROAD COMPANY
ABERDEEN, CAROLINA & WESTERN RAILWAY
ADRIAN & BLISSFIELD RAIL ROAD COMPANY
ALEXANDER RAILROAD CO.
ALGERS, WINSLOW & WESTERN RAILWAY COMPANY
ALIQUIPPA AND SOUTHERN RAILROAD COMPANY
ALLEGHENY & EASTERN RAILROAD
AMADOR CENTRAL RAILROAD
ANGELINA & NECHES RIVER RAILROAD CO.
APACHE RAILWAY
APALACHICOLA NORTHERN RAILROAD COMPANY
APPANOOSE COUNTY COMMUNITY RAILROAD INC.
ARCADE AND ATTICA RAILROAD CORPORATION
ARIZONA & CALIFORNIA RAILROAD
ARIZONA EASTERN RAILWAY COMPANY
ARKANSAS AND MISSOURI RAILROAD COMPANY
ARKANSAS MIDLAND RAILROAD
ARKANSAS, LOUISIANA AND MISSISSIPPI RAILROAD CO.
ASHLEY, DREW AND NORTHERN RAILWAY CO.
ATLANTIC & GULF RAILROAD
ATLANTIC & WESTERN RAILWAY, L.P.
AUSTIN AND NORTHWESTERN RAILROAD CO., INC.
BAUXITE AND NORTHERN RAILWAY COMPANY
BIRMINGHAM SOUTHERN RAILROAD COMPANY
BRANDYWINE VALLEY RAILROAD COMPANY
BROWNSVILLE & RIO GRANDE INTERNATIONAL RAILROAD
BUCKINGHAM BRANCH RAILROAD CO.
BUFFALO & PITTSBURGH RAILROAD
CAIRO TERMINAL RAILROAD CO. INC.
CALIFORNIA WESTERN RAILROAD
CAROLINA PIEDMONT DIVISION - SCRF
CEDAR RAPIDS AND IOWA CITY RAILWAY COMPANY
CEDAR RIVER RAILROAD CO
CENTRAL KANSAS RAILWAY
CENTRAL MICHIGAN RAILWAY COMPANY
CENTRAL MONTANA RAIL, INC.
CHATTAHOOCHEE INDUSTRIAL RAILROAD
CHESAPEAKE AND ALBEMARLE RAILROAD CO., INC.
CHESTNUT RIDGE RAILWAY COMPANY
CHICAGO & ILLINOIS MIDLAND RAILWAY CO.
CHICAGO RAIL LINK
CHICAGO SHORT LINE RAILWAY COMPANY
CHICAGO SOUTH SHORE & SOUTH BEND RAILROAD
CHICAGO, CENTRAL & PACIFIC RAILROAD CO.
CHICAGO, WEST PULLMAN & SOU.
CITY OF PRINEVILLE RAILWAY

CLARENDON & PITTSFORD RAILROAD COMPANY
COLORADO & WYOMING RAILWAY COMPANY
COLUMBIA TERMINAL RAILROAD
CONNECTICUT CENTRAL RAILROAD
COPPER BASIN RAILWAY, INC
CRAB ORCHARD AND EGYPTIAN RAILROAD
CUMBRES & TOLTEC SCENIC RAILROAD
D & I RAILROAD CO
DAKOTA RAIL INC.
DAKOTA, MINNESOTA & EASTERN RAILROAD CORPORATION
DAKOTA, MISSOURI VALLEY & WESTERN RAILROAD
DALLAS, GARLAND AND NORTHEASTERN RAILROAD, INC.
DARDANELLE & RUSSELLVILLE
DELRAY CONNECTING RAILROAD COMPANY
DEPEW, LANCASTER & WESTERN RAILROAD CO., INC.
DEQUEEN & EASTERN/TEXAS, OKLAHOMA & EASTERN
DULUTH & NORTHEASTERN RAILROAD COMPANY
EAST CAMDEN & HIGHLAND RAILROAD COMPANY
EAST COOPER AND BERKELEY RAILROAD
EAST ERIE COMMERCIAL RAILROAD
EAST TENNESSEE RAILWAY, L.P.
EASTERN ALABAMA RAILWAY
EASTERN SHORE RAILROAD, INC.
FARMRAIL SYSTEM, INC.
FLORIDA CENTRAL RAILROAD
FLORIDA MIDLAND RAILROAD
FLORIDA NORTHERN RAILROAD
FORDYCE AND PRINCETON RR CO.
FORT WORTH & WESTERN RAILROAD
GALVESTON RAILROAD L.P.
GATEWAY WESTERN RAILWAY
GENESEE & WYOMING RAILROAD COMPANY
GEORGIA AND ALABAMA DIVISION - SCRF
GEORGIA CENTRAL RAILWAY L.P.
GEORGIA SOUTHWESTERN DIVISION - SCRF
GEORGIA WOODLANDS RAILROAD
GETTYSBURG RAILROAD COMPANY
GLOSTER SOUTHERN RAILROAD CO.
GODERICH-EXETER RAILWAY CO. LTD
GOLDEN TRIANGLE RAILROAD
GRAND RAPIDS EASTERN RAILROAD, INC.
GREAT MIAMI & SCIOTO RY
GREAT RIVER RAILROAD
GREAT WESTERN RAILWAY - COLORADO
GREAT WESTERN RAILWAY - OREGON
GREAT WESTERN RAILWAY OF IOWA DBA COUNCIL BLUFFS
GREEN MOUNTAIN RAILROAD CORP.
GREENVILLE & NORTHERN RAILWAY
HAMPTON & BRANCHVILLE RAILROAD COMPANY INC.
HARDIN SOUTHERN RAILROAD, INC.
INDIANA AND OHIO CENTRAL RAILROAD
INDIANA AND OHIO RAILROAD
INDIANA AND OHIO RAILWAY INC
INDIANA HARBOR BELT RAILROAD COMPANY

INDIANA HI-RAIL CORP.
INDIANA SOUTHERN RAILROAD, INC.
IOWA INTERSTATE RAILROAD
JEFFERSON WARRIOR RAILROAD
JK LINE INC
KANSAS SOUTHWESTERN
KEOKUK JUNCTION RAILWAY
KIAMICHI RAILROAD CO., INC
KNOX AND KANE RAILROAD COMPANY
LANCASTER & CHESTER RAILWAY COMPANY
LITTLE ROCK & WESTERN RAILWAY, L.P.
LITTLE ROCK PORT RAILROAD
LIVONIA, AVON & LAKEVILLE RAILROAD CORP
LONG ISLAND RAILROAD CO.
LONGVIEW, PORTLAND & NORTHERN RAILWAY CO.
LOUISIANA AND NORTH WEST RAILROAD COMPANY
MADISON RAILROAD
MANUFACTURER'S JUNCTION RAILWAY
MANUFACTURERS RAILWAY COMPANY
MARYLAND AND PENNSYLVANIA RAILROAD COMPANY
MARYLAND MIDLAND RAILWAY, INC.
MERIDIAN & BIGBEE RAILROAD CO.
MG RAIL, INC
MICHIGAN SHORE RAILROAD, INC.
MID-MICHIGAN RAILROAD, INC.
MIDLAND TERMINAL COMPANY
MIDWEST COAL HANDLING CO., INC.
MINNESOTA, DAKOTA & WESTERN RAILWAY COMPANY
MISSISSIPPI & SKUNA VALLEY
MISSISSIPPI DELTA RAILROAD
MISSISSIPPIAN RAILWAY COOPERATIVE, INC.
MISSOURI AND NORTHERN ARKANSAS RAILROAD
MISSOURI SOUTHEASTERN
MNVA RAILROAD INC.
MODESTO & EMPIRE TRACTION COMPANY
MOHAWK, ADIRONDACK & NORTHERN RAILROAD CO., INC.
MONTANA RAIL LINK
MONTANA WESTERN RAILWAY CO. INC.
MOSCOW, CAMDEN & SAN AUGUSTINE
NASH COUNTY RAILROAD
NASHVILLE & EASTERN RAILROAD
NEBRASKA CENTRAL RAILROAD
NEW HAMPSHIRE NORTHCOAST CORPORATION
NEW ORLEANS AND LOWER COAST RAILROAD, INC.
NEWBURGH & SOUTH SHORE RAILROAD
NORFOLK AND PORTSMOUTH BELT LINE
NORTH CAROLINA AND VIRGINIA RAILROAD CO.
NORTHEAST KANSAS AND MISSOURI DIVISION - MMRR
NORTHERN NEVADA RAILROAD CORPORATION
NORTHWESTERN OKLAHOMA RAILROAD CO.
ONTARIO MIDLAND RAILROAD CORP.
OTTER TAIL VALLEY RAILROAD
PADUCAH & LOUISVILLE RAILWAY INC.
PANHANDLE NORTHERN

PATAPSCO & BACK RIVERS RAILROAD CO.
PHILADELPHIA, BETHLEHEM AND NEW ENGLAND RAILROAD
PICKENS RAILROAD CO. & HONEA PATH DIVISION
PIONEER VALLEY RAILROAD CO., INC
POINT COMFORT & NORTHERN RAILWAY
PORT BIENVILLE RAILROAD
PORT OF TILLAMOOK BAY RAILROAD
PORT ROYAL RAILROAD
PORT TERMINAL RAILROAD
PORT UTILITIES COMMISSION OF CHARLESTON, S.C.
PROVIDENCE AND WORCESTER RAILROAD CO
QUINCY BAY TERMINAL CO.
RAILROAD SWITCHING SERVICE OF MISSOURI
RARUS RAILWAY COMPANY
RED RIVER VALLEY & WESTERN RAILROAD
ROCHESTER & SOUTHERN RAILROAD INC.
SABINE RIVER & NORTHERN RAILROAD
SALT LAKE CITY SOUTHERN RAILROAD CO., INC.
SAN DIEGO IMPERICAL VALLEY RAILROAD
SAN JOAQUIN VALLEY RAILROAD COMPANY
SAN MANUEL ARIZONA RAILROAD COMPANY
SANTA FE SOUTHERN RAILWAY INC.
SANTA MARIA VALLEY RAILROAD COMPANY
SOUTH BRANCH VALLEY RR
SOUTH BUFFALO RAILWAY CO.
SOUTH CAROLINA CENTRAL RAILROAD
SOUTHERN RAILROAD CO. OF NEW JERSEY
ST. LAWRENCE & ATLANTIC RAILROAD COMPANY
ST. MARIES RIVER RAILROAD
ST. MARYS
STEELTON & HIGHSPIRE RAILROAD CO.
TACOMA MUNICIPAL BELT LINE RAILROAD
TENNESSEE SOUTHERN RAILROAD CO., INC.
TENNKEN RAILROAD CO., INC.
TEXAS AND NEW MEXICO DIVISION - AUNW
TEXAS AND NORTHERN RAILWAY COMPANY
TEXAS NORTH WESTERN RAILWAY CO.
TEXAS NORTHEASTERN DIVISION - MMRR
TEXAS SOUTH-EASTERN RAILROAD
TEXAS, GONZALES & NORTHERN RAILWAY COMPANY
THE BELT RAILWAY COMPANY OF CHICAGO
THE CUYAHOGA VALLEY RAILWAY COMPANY
THE EVERETT RAILROAD COMPANY
THE GARDEN CITY WESTERN RAILWAY, INC.
THE GREAT WALTON RAILROAD CO., INC.
THE HUNTSVILLE AND MADISON COUNTY RAILROAD
THE INDIANA RAIL ROAD COMPANY
THE LAKE TERMINAL RAILROAD COMPANY
THE LANDISVILLE RAILROAD, INC.
THE MAHONING VALLEY RAILWAY COMPANY
THE MONONGAHELA CONNECTING RAILROAD COMPANY
THE NEW YORK, SUSQUEHANNA & WESTERN RWY. CORP.
THE RIVER TERMINAL RAILWAY COMPANY
THE TEXAS MEXICAN RAILWAY COMPANY

TOMAHAWK RAILWAY, LIMITED PARTNERSHIP
TULSA-SAPULPA UNION RAILWAY
TWIN CITIES & WESTERN RAILROAD COMPANY
UNION RAILROAD COMPANY
UPPER MERION & PLYMOUTH RAILROAD CO.
UTAH RAILWAY COMPANY
VALDOSTA RAILWAY, L.P.
VANDALIA RAILROAD CO.
VERMONT RAILWAY, INC.
VIRGINIA SOUTHERN DIVISION - NCVA
WASHINGTON CENTRAL RAILROAD CO. INC.
WCTU RAILWAY COMPANY
WEST TENNESSEE RAILROAD CORP.
WESTERN PLANT SERVICES INCORPORATED
WESTERN RAIL ROAD COMPANY
WICHITA, TILLMAN & JACKSON RAILWAY COMPANY
WILLAMETTE VALLEY RAILWAY CO.
WILMINGTON TERMINAL
WINCHESTER & WESTERN RAILROAD
WIREGRASS CENTRAL RAILROAD
WISCONSIN CENTRAL LTD. & FOX VALLEY & WESTERN LTD.
YADKIN VALLEY RAILROAD
YORKRAIL, INC.

APPENDIX D

SLRD System Database Technical Specification

Database Tables in the SLRD System Database

The SLRD system database is in the Microsoft Access database format (*.mdb) and consists of the following tables.

Annual Operating Statistics
Annual_total
Auxiliary Financial Information
Base Financial Information
Benefit Plans Information
Capital Investment Information
Customer Information
Employee Information
Equip Total
Equipment Information
FRA Total
FRA-Track Class Information
GENPROF
Passenger Services Information
Port Customers Information
RailroadNames
Ravi
Report Table
Roadway Information
Temp

The major reference table is the RailroadName table. This table is the focal point for all of the relationships in the database. Detailed descriptions of the individual tables follow.

The 1993 Annual Data Profile database is in the Microsoft Access database format (*.mdb) and consists of the following tables.

Annual Operating Statistics
Annual_total
Auxiliary Financial Information
Base Financial Information
Benefit Plans Information
Capital Investment Information
Customer Information
Employee Information
Equip Total
Equipment Information
FRA Total
FRA-Track Class Information
GENPROF
Passenger Services Information
Port Customers Information
RailroadNames
Ravi
Report Table
Roadway Information
Temp

The major reference table is the RailroadName table. This table is the focal point for all of the relationships in the database. Detailed descriptions of the individual tables follow.

Properties

Date Created:	8/19/93 3:15:51 PM	Def. Updatable:	Yes
Last Updated:	12/20/94 9:42:49 AM	Record Count:	3220

Columns

Name	Type	Size
ID	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size, Auto-Increment
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	1
Required:	No
Source Field:	ID
Source Table:	Annual Operating Statistics
Validate On Set:	No

Name	Type	Size
ANNUAL_OP_R_NO	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Railroad Number
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	1548
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	2
Required:	No
Source Field:	ANNUAL_OP_R_NO
Source Table:	Annual Operating Statistics
Validate On Set:	No

Name	Type	Size
STCC_CODE	Text	100

Allow Zero Length:	No
Attributes:	Variable Length
Caption:	STCC Code
Collating Order:	General
Column Hidden:	No
Column Order:	Default
Column Width:	5352
Data Updatable:	No
Ordinal Position:	3
Required:	No

Source Field:	STCC_CODE	
Source Table:	Annual Operating Statistics	
Validate On Set:	No	

CAR_ORG_TERM_ON_LINE   Number (Long)   4

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Carloads Originated and Terminated Online
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	4116
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	4
Required:	No
Source Field:	CAR_ORG_TERM_ON_LINE
Source Table:	Annual Operating Statistics
Validate On Set:	No

INTRLND_CARS_ORG   Number (Long)   .4

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Interlined Carloads Originated
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	3360
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	5
Required:	No
Source Field:	INTRLND_CARS_ORG
Source Table:	Annual Operating Statistics
Validate On Set:	No

INTRLND_CARS_TERM   Number (Long)   4

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Interlined Carloads Terminated
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	3180
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	6
Required:	No
Source Field:	INTRLND_CARS_TERM
Source Table:	Annual Operating Statistics

| | Validate On Set: | No | |

BRIDGE_CARS   Number (Long)   4

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Bridge Carloads
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	1824
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	7
Required:	No
Source Field:	BRIDGE_CARS
Source Table:	Annual Operating Statistics
Validate On Set:	No

TOTAL_CARS   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	8
Required:	No
Source Field:	TOTAL_CARS
Source Table:	Annual Operating Statistics
Validate On Set:	No

Tempo   Number (Long)   4

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	9
Required:	No
Source Field:	Tempo
Source Table:	Annual Operating Statistics
Validate On Set:	No

ID1   Number (Integer)   2

| Allow Zero Length: | No |

Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	10
Required:	No
Source Field:	ID1
Source Table:	Annual Operating Statistics
Validate On Set:	No

Relationships

Reference

RailroadNames		nnual Operating Statistic
ID	1 ———— ∞	ANNUAL_OP_R_NO

Attributes:	One to Many, Not Enforced

Table Indexes

Name	Number of Fields
ANNUAL_OP_R_NO	1
Clustered:	No
Distinct Count:	230
Foreign:	No
Ignore Nulls:	No
Name:	ANNUAL_OP_R_NO
Primary:	No
Required:	No
Unique:	No
Fields:	ANNUAL_OP_R_NO, Ascending
PrimaryKey	1
Clustered:	No
Distinct Count:	3220
Foreign:	No
Ignore Nulls:	No
Name:	PrimaryKey
Primary:	Yes
Required:	Yes
Unique:	Yes
Fields:	ID, Ascending

User Permissions

admin	Delete, Read Permissions, Set Permissions, Change Owner
guest	

Group Permissions

Admins	
Guests	Read Permissions
Users	Delete, Read Permissions, Set Permissions, Change Owner

Properties

Date Created:	9/20/94 10:31:54 PM	Def. Updatable:	Yes
Last Updated:	12/20/94 9:42:49 AM	Record Count:	14

Columns

Name	Type	Size
TOT_CUST_SERVED	Number (Double)	8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	1
Required:	No
Source Field:	TOT_CUST_SERVED
Source Table:	annual_total
Validate On Set:	No

Name	Type	Size
STCC_CODE	Text	50

Allow Zero Length:	No
Attributes:	Variable Length
Collating Order:	General
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	2
Required:	No
Source Field:	STCC_CODE
Source Table:	annual_total
Validate On Set:	No

Name	Type	Size
CAR_ORG_TERM_ON_LINE	Number (Double)	8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	3
Required:	No

Source Field:	CAR_ORG_TERM_ON_LINE	
Source Table:	annual_total	
Validate On Set:	No	

INTRLND_CARS_ORG   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	4
Required:	No
Source Field:	INTRLND_CARS_ORG
Source Table:	annual_total
Validate On Set:	No

INTRLND_CARS_TERM   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	5
Required:	No
Source Field:	INTRLND_CARS_TERM
Source Table:	annual_total
Validate On Set:	No

BRIDGE_CARS   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	6
Required:	No
Source Field:	BRIDGE_CARS
Source Table:	annual_total
Validate On Set:	No

Table Indexes

Name	Number of Fields
TOT_CUST_SERVED	1

Clustered:	No
Distinct Count:	1
Foreign:	No
Ignore Nulls:	No
Name:	TOT_CUST_SERVED
Primary:	No
Required:	No
Unique:	No
Fields:	TOT_CUST_SERVED, Ascending

User Permissions

admin	Delete, Read Permissions, Set Permissions, Change Owner
guest	

Group Permissions

Admins	
Guests	Read Permissions
Users	Delete, Read Permissions, Set Permissions, Change Owner

Properties

Date Created:	8/19/93 2:05:00 PM	Def. Updatable:	Yes
Last Updated:	12/20/94 9:42:50 AM	Record Count:	230

Columns

Name	Type	Size
ID	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size, Auto-Increment
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	1
Required:	No
Source Field:	ID
Source Table:	Auxiliary Financial Information
Validate On Set:	No

Name	Type	Size
AUX_R_NO	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Railroad Number
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	General Number
Ordinal Position:	2
Required:	No
Source Field:	AUX_R_NO
Source Table:	Auxiliary Financial Information
Validate On Set:	No

Name	Type	Size
FREIGHT	Currency	8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Freight
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto

Default Value: 0
Format: $#,##0.00;($#,##0.00)
Ordinal Position: 3
Required: No
Source Field: FREIGHT
Source Table: Auxiliary Financial Information
Validate On Set: No

OTHER_OP_REV   Currency   8

Allow Zero Length: No
Attributes: Fixed Size
Caption: Other Operating Revenue
Collating Order: Unknown or Undefined
Column Hidden: No
Column Order: Default
Column Width: 2808
Data Updatable: No
Decimal Places: Auto
Default Value: 0
Format: $#,##0.00;($#,##0.00)
Ordinal Position: 4
Required: No
Source Field: OTHER_OP_REV
Source Table: Auxiliary Financial Information
Validate On Set: No

WAY   Currency   8

Allow Zero Length: No
Attributes: Fixed Size
Caption: Way
Collating Order: Unknown or Undefined
Column Hidden: No
Column Order: Default
Column Width: Default
Data Updatable: No
Decimal Places: Auto
Default Value: 0
Format: $#,##0.00;($#,##0.00)
Ordinal Position: 5
Required: No
Source Field: WAY
Source Table: Auxiliary Financial Information
Validate On Set: No

BRIDGES   Currency   8

Allow Zero Length: No
Attributes: Fixed Size
Caption: Bridges
Collating Order: Unknown or Undefined
Column Hidden: No
Column Order: Default
Column Width: Default
Data Updatable: No

Decimal Places:	Auto
Default Value:	0
Format:	$#,##0.00;($#,##0.00)
Ordinal Position:	6
Required:	No
Source Field:	BRIDGES
Source Table:	Auxiliary Financial Information
Validate On Set:	No

WAYS_AND_STRCT_TOT   Currency   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Ways and Structures Total
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	$#,##0.00;($#,##0.00)
Ordinal Position:	7
Required:	No
Source Field:	WAYS_AND_STRCT_TOT
Source Table:	Auxiliary Financial Information
Validate On Set:	No

FREIGHT_CARS   Currency   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Freight Cars
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	$#,##0.00;($#,##0.00)
Ordinal Position:	8
Required:	No
Source Field:	FREIGHT_CARS
Source Table:	Auxiliary Financial Information
Validate On Set:	No

LOCOMOTIVES   Currency   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Locomotives
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default

Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	$#,##0.00;($#,##0.00)
Ordinal Position:	9
Required:	No
Source Field:	LOCOMOTIVES
Source Table:	Auxiliary Financial Information
Validate On Set:	No

OTHER_EQUIP_EXP   Currency   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Other Equipment Expenses
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	$#,##0.00;($#,##0.00)
Ordinal Position:	10
Required:	No
Source Field:	OTHER_EQUIP_EXP
Source Table:	Auxiliary Financial Information
Validate On Set:	No

TOT_EQUIP_EXP   Currency   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Total Equipment Expenses
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	$#,##0.00;($#,##0.00)
Ordinal Position:	11
Required:	No
Source Field:	TOT_EQUIP_EXP
Source Table:	Auxiliary Financial Information
Validate On Set:	No

TRANSPORTATION   Currency   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Transportation
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default

Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Format:	$#,##0.00;($#,##0.00)	
Ordinal Position:	12	
Required:	No	
Source Field:	TRANSPORTATION	
Source Table:	Auxiliary Financial Information	
Validate On Set:	No	

GEN_AND_ADMIN   Currency   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	General & Administration Expenses
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	$#,##0.00;($#,##0.00)
Ordinal Position:	13
Required:	No
Source Field:	GEN_AND_ADMIN
Source Table:	Auxiliary Financial Information
Validate On Set:	No

OTH_OPER_EXP   Currency   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Other Operatin Expenses
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	$#,##0.00;($#,##0.00)
Ordinal Position:	14
Required:	No
Source Field:	OTH_OPER_EXP
Source Table:	Auxiliary Financial Information
Validate On Set:	No

CAP_ROAD_EXP   Currency   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Capital Road Expenditure
Collating Order:	Unknown or Undefined
Column Hidden:	No

Column Order: Default
Column Width: Default
Data Updatable: No
Decimal Places: Auto
Default Value: 0
Format: $#,##0.00;($#,##0.00)
Ordinal Position: 15
Required: No
Source Field: CAP_ROAD_EXP
Source Table: Auxiliary Financial Information
Validate On Set: No

CAP_EQUIP_EXP   Currency   8
Allow Zero Length: No
Attributes: Fixed Size
Caption: Capital Equipment Expenditure
Collating Order: Unknown or Undefined
Column Hidden: No
Column Order: Default
Column Width: Default
Data Updatable: No
Decimal Places: Auto
Default Value: 0
Format: $#,##0.00;($#,##0.00)
Ordinal Position: 16
Required: No
Source Field: CAP_EQUIP_EXP
Source Table: Auxiliary Financial Information
Validate On Set: No

CAP_OTHER_EXP   Currency   8
Allow Zero Length: No
Attributes: Fixed Size
Caption: Other Capital Expenditure
Collating Order: Unknown or Undefined
Column Hidden: No
Column Order: Default
Column Width: Default
Data Updatable: No
Decimal Places: Auto
Default Value: 0
Format: $#,##0.00;($#,##0.00)
Ordinal Position: 17
Required: No
Source Field: CAP_OTHER_EXP
Source Table: Auxiliary Financial Information
Validate On Set: No

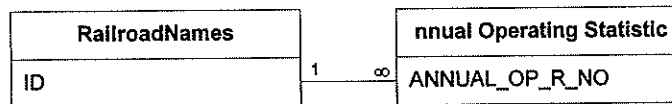Tempo   Number (Long)   4
Allow Zero Length: No
Attributes: Fixed Size
Collating Order: Unknown or Undefined
Column Hidden: No

Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	18
Required:	No
Source Field:	Tempo
Source Table:	Auxiliary Financial Information
Validate On Set:	No

Relationships

Reference_Auxiliary Financial Information

RailroadNames		xiliary Financial Informati
ID	1 ∞	AUX_R_NO

Attributes: One to Many, Not Enforced

Table Indexes

Name	Number of Fields
PrimaryKey	1

Clustered:	No
Distinct Count:	230
Foreign:	No
Ignore Nulls:	No
Name:	PrimaryKey
Primary:	Yes
Required:	Yes
Unique:	Yes
Fields:	ID, Ascending

User Permissions

admin   Delete, Read Permissions, Set Permissions, Change Owner
guest

Group Permissions

Admins
Guests   Read Permissions
Users   Delete, Read Permissions, Set Permissions, Change Owner

Properties

Date Created:	8/19/93 1:34:18 PM	Def. Updatable:	Yes
Last Updated:	12/20/94 9:42:50 AM	Record Count:	230

Columns

Name	Type	Size
ID	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size, Auto-Increment
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	1
Required:	No
Source Field:	ID
Source Table:	Base Financial Information
Validate On Set:	No

Name	Type	Size
FIN_R_NO	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Railroad Number
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	2040
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	2
Required:	No
Source Field:	FIN_R_NO
Source Table:	Base Financial Information
Validate On Set:	No

Name	Type	Size
GROSS_RAIL_OP_REV	Number (Double)	8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Gross Railway operating Revenue
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	3588
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0

Format:	$#,##0.00;($#,##0.00)	
Ordinal Position:	3	
Required:	No	
Source Field:	GROSS_RAIL_OP_REV	
Source Table:	Base Financial Information	
Validate On Set:	No	

TOTAL_RAIL_OP_EXP	Currency	8
Allow Zero Length:	No	
Attributes:	Fixed Size	
Caption:	Total Railway Operating Expenses	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Format:	$#,##0.00;($#,##0.00)	
Ordinal Position:	4	
Required:	No	
Source Field:	TOTAL_RAIL_OP_EXP	
Source Table:	Base Financial Information	
Validate On Set:	No	

NET_RAIL_OP_INCOME	Currency	8
Allow Zero Length:	No	
Attributes:	Fixed Size	
Caption:	Total Railway Operating Income	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Format:	$#,##0.00;($#,##0.00)	
Ordinal Position:	5	
Required:	No	
Source Field:	NET_RAIL_OP_INCOME	
Source Table:	Base Financial Information	
Validate On Set:	No	

CURRENT_ASSETS	Currency	8
Allow Zero Length:	No	
Attributes:	Fixed Size	
Caption:	Current Assets	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	

Default Value:	0	
Format:	$#,##0.00;($#,##0.00)	
Ordinal Position:	6	
Required:	No	
Source Field:	CURRENT_ASSETS	
Source Table:	Base Financial Information	
Validate On Set:	No	

CURRENT_LIABILITY   Currency   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Current Liability
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	$#,##0.00;($#,##0.00)
Ordinal Position:	7
Required:	No
Source Field:	CURRENT_LIABILITY
Source Table:	Base Financial Information
Validate On Set:	No

NET_WORK_CAPITAL   Currency   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Net Working Capital
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	$#,##0.00;($#,##0.00)
Ordinal Position:	8
Required:	No
Source Field:	NET_WORK_CAPITAL
Source Table:	Base Financial Information
Validate On Set:	No

CONTRIB_TO_CAPITAL   Currency   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Contribution to Capital
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No

Decimal Places:	Auto
Default Value:	0
Format:	$#,##0.00;($#,##0.00)
Ordinal Position:	9
Required:	No
Source Field:	CONTRIB_TO_CAPITAL
Source Table:	Base Financial Information
Validate On Set:	No

TOTAL_ASSETS   Currency   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Total Assets
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	$#,##0.00;($#,##0.00)
Ordinal Position:	10
Required:	No
Source Field:	TOTAL_ASSETS
Source Table:	Base Financial Information
Validate On Set:	No

LONG_TERM_DEBT   Currency   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Long Term Debt
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	$#,##0.00;($#,##0.00)
Ordinal Position:	11
Required:	No
Source Field:	LONG_TERM_DEBT
Source Table:	Base Financial Information
Validate On Set:	No

STOCK_HLDRS_EQUITY   Currency   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Stockholders Equity
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default

Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Format:	$#,##0.00;($#,##0.00)	
Ordinal Position:	12	
Required:	No	
Source Field:	STOCK_HLDRS_EQUITY	
Source Table:	Base Financial Information	
Validate On Set:	No	

TOTAL_CAPITAL_EXP   Currency   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Total Capital Expenditures
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	$#,##0.00;($#,##0.00)
Ordinal Position:	13
Required:	No
Source Field:	TOTAL_CAPITAL_EXP
Source Table:	Base Financial Information
Validate On Set:	No

DEP_AMORT_AND_RET   Currency   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Depreciation, Amortization & Retirement
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	$#,##0.00;($#,##0.00)
Ordinal Position:	14
Required:	No
Source Field:	DEP_AMORT_AND_RET
Source Table:	Base Financial Information
Validate On Set:	No

EXPENSE   Currency   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Expense
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default

Column Width: Default
Data Updatable: No
Decimal Places: Auto
Default Value: 0
Format: $#,##0.00;($#,##0.00)
Ordinal Position: 15
Required: No
Source Field: EXPENSE
Source Table: Base Financial Information
Validate On Set: No

Temp   Number (Long)   4

Allow Zero Length: No
Attributes: Fixed Size
Collating Order: Unknown or Undefined
Column Hidden: No
Column Order: Default
Column Width: Default
Data Updatable: No
Decimal Places: Auto
Default Value: 0
Ordinal Position: 16
Required: No
Source Field: Temp
Source Table: Base Financial Information
Validate On Set: No

Tempo   Number (Long)   4

Allow Zero Length: No
Attributes: Fixed Size
Collating Order: Unknown or Undefined
Column Hidden: No
Column Order: Default
Column Width: Default
Data Updatable: No
Decimal Places: Auto
Default Value: 0
Ordinal Position: 17
Required: No
Source Field: Tempo
Source Table: Base Financial Information
Validate On Set: No

Relationships

Reference_Base Financial Information

RailroadNames		ase Financial Informatio
ID	1 ∞	FIN_R_NO

Attributes:　　　　　　　　　One to Many, Not Enforced

Table Indexes

Name	Number of Fields
PrimaryKey	1

Clustered:	No
Distinct Count:	230
Foreign:	No
Ignore Nulls:	No
Name:	PrimaryKey
Primary:	Yes
Required:	Yes
Unique:	Yes
Fields:	ID, Ascending

User Permissions

admin	Delete, Read Permissions, Set Permissions, Change Owner
guest	

Group Permissions

Admins	
Guests	Read Permissions
Users	Delete, Read Permissions, Set Permissions, Change Owner

Properties

Date Created:	8/19/93 3:55:54 PM	Def. Updatable:	Yes
Last Updated:	12/20/94 9:42:50 AM	Record Count:	230

Columns

Name	Type	Size
ID	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size, Auto-Increment
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	1
Required:	No
Source Field:	ID
Source Table:	Benefit Plans Information
Validate On Set:	No

Name	Type	Size
BENEFIT_R_NO	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Railroad Number
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	2
Required:	No
Source Field:	BENEFIT_R_NO
Source Table:	Benefit Plans Information
Validate On Set:	No

Name	Type	Size
MEDICAL_PLAN	Number (Double)	8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Medical Plan
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0

Ordinal Position:	3	
Required:	No	
Source Field:	MEDICAL_PLAN	
Source Table:	Benefit Plans Information	
Validate On Set:	No	

MED_EMP_CONTRIB   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Annual Employer Contribution for Medical
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	4
Required:	No
Source Field:	MED_EMP_CONTRIB
Source Table:	Benefit Plans Information
Validate On Set:	No

DENTAL_PLAN   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Dental Plan
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	5
Required:	No
Source Field:	DENTAL_PLAN
Source Table:	Benefit Plans Information
Validate On Set:	No

DEN_EMP_CONTRIB   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Total Annual Employer Contribution for Dental
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	6
Required:	No

Source Field:	DEN_EMP_CONTRIB	
Source Table:	Benefit Plans Information	
Validate On Set:	No	

LIFE_INSURANCE_PLAN Number (Double) 8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Life Insurance Plan
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	7
Required:	No
Source Field:	LIFE_INSURANCE_PLAN
Source Table:	Benefit Plans Information
Validate On Set:	No

LIFE_EMP_CONTRIB Number (Double) 8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Total Annual Employer Comtribution for Life Insurance
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	8
Required:	No
Source Field:	LIFE_EMP_CONTRIB
Source Table:	Benefit Plans Information
Validate On Set:	No

PROFIT_SHARE_PLAN Text 1

Allow Zero Length:	No
Attributes:	Variable Length
Caption:	Profit Sharing Plan
Collating Order:	General
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	9
Required:	No
Source Field:	PROFIT_SHARE_PLAN
Source Table:	Benefit Plans Information
Validate On Set:	No

PROFIT_EMP_CONTRIB   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	10
Required:	No
Source Field:	PROFIT_EMP_CONTRIB
Source Table:	Benefit Plans Information
Validate On Set:	No

BENEFIT_ANN_SUB_TOT   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Annual Benefit Cost
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	11
Required:	No
Source Field:	BENEFIT_ANN_SUB_TOT
Source Table:	Benefit Plans Information
Validate On Set:	No

401K_PLAN   Text   1

Allow Zero Length:	No
Attributes:	Variable Length
Caption:	401(K) Plan
Collating Order:	General
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	12
Required:	No
Source Field:	401K_PLAN
Source Table:	Benefit Plans Information
Validate On Set:	No

401K_EMP_CONTRIB   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Total Annual Employer Contribution for 401K Plan
Collating Order:	Unknown or Undefined

Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	13	
Required:	No	
Source Field:	401K_EMP_CONTRIB	
Source Table:	Benefit Plans Information	
Validate On Set:	No	

PENSION_PLAN   Number (Double)   8

Allow Zero Length:	No	
Attributes:	Fixed Size	
Caption:	Pension Plan	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	14	
Required:	No	
Source Field:	PENSION_PLAN	
Source Table:	Benefit Plans Information	
Validate On Set:	No	

PENSION_EMP_CONTRIB   Number (Double)   8

Allow Zero Length:	No	
Attributes:	Fixed Size	
Caption:	Total Annual Employer Contribution for Pension Plan	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	15	
Required:	No	
Source Field:	PENSION_EMP_CONTRIB	
Source Table:	Benefit Plans Information	
Validate On Set:	No	

RETIRE_ANN_SUB_TOT   Number (Double)   8

Allow Zero Length:	No	
Attributes:	Fixed Size	
Caption:	Annual Retirement Cost	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	

Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	16
Required:	No
Source Field:	RETIRE_ANN_SUB_TOT
Source Table:	Benefit Plans Information
Validate On Set:	No

FAMILY_BENEFIT1 Number (Double) 8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	17
Required:	No
Source Field:	FAMILY_BENEFIT1
Source Table:	Benefit Plans Information
Validate On Set:	No

FAMILY_BENEFIT2 Number (Double) 8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	18
Required:	No
Source Field:	FAMILY_BENEFIT2
Source Table:	Benefit Plans Information
Validate On Set:	No

FAMILY_BENEFIT3 Number (Double) 8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	19

	Required:	No
	Source Field:	FAMILY_BENEFIT3
	Source Table:	Benefit Plans Information
	Validate On Set:	No

Kplan1   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	20
Required:	No
Source Field:	Kplan1
Source Table:	Benefit Plans Information
Validate On Set:	No

Kplan2   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	21
Required:	No
Source Field:	Kplan2
Source Table:	Benefit Plans Information
Validate On Set:	No

Kplan3   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	22
Required:	No
Source Field:	Kplan3
Source Table:	Benefit Plans Information
Validate On Set:	No

Tempo		Number (Long)	4
	Allow Zero Length:	No	
	Attributes:	Fixed Size	
	Collating Order:	Unknown or Undefined	
	Column Hidden:	No	
	Column Order:	Default	
	Column Width:	Default	
	Data Updatable:	No	
	Decimal Places:	Auto	
	Default Value:	0	
	Ordinal Position:	23	
	Required:	No	
	Source Field:	Tempo	
	Source Table:	Benefit Plans Information	
	Validate On Set:	No	

Relationships

Reference_Benefit Plans Information

RailroadNames		Benefit Plans Information
ID	1 ∞	BENEFIT_R_NO

Attributes: One to Many, Not Enforced

Table Indexes

Name	Number of Fields
PrimaryKey	1

	Clustered:	No
	Distinct Count:	230
	Foreign:	No
	Ignore Nulls:	No
	Name:	PrimaryKey
	Primary:	Yes
	Required:	Yes
	Unique:	Yes
	Fields:	ID, Ascending

User Permissions

admin   Delete, Read Permissions, Set Permissions, Change Owner

guest

Group Permissions

Admins	
Guests	Read Permissions
Users	Delete, Read Permissions, Set Permissions, Change Owner

Properties

Date Created:	8/19/93 2:41:09 PM	Def. Updatable:	Yes
Last Updated:	12/20/94 9:42:51 AM	Record Count:	230

Columns

Name	Type	Size
ID	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size, Auto-Increment
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	1
Required:	No
Source Field:	ID
Source Table:	Capital Investment Information
Validate On Set:	No

Name	Type	Size
CAP_INV_R_NO	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Railroad Number
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	General Number
Ordinal Position:	2
Required:	No
Source Field:	CAP_INV_R_NO
Source Table:	Capital Investment Information
Validate On Set:	No

Name	Type	Size
ROAD_INVEST	Number (Double)	8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Investment Type
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto

Default Value:	0	
Ordinal Position:	3	
Required:	No	
Source Field:	ROAD_INVEST	
Source Table:	Capital Investment Information	
Validate On Set:	No	

ROAD_FUND_INTERNALLY Number (Integer) 2

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Percent Funded Internally
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	Percent
Ordinal Position:	4
Required:	No
Source Field:	ROAD_FUND_INTERNALLY
Source Table:	Capital Investment Information
Validate On Set:	No

EQUIP_INVEST Number (Double) 8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	5
Required:	No
Source Field:	EQUIP_INVEST
Source Table:	Capital Investment Information
Validate On Set:	No

EQUIP_FUND_INTERNALLY Number (Integer) 2

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	Percent
Ordinal Position:	6

Required:	No	
Source Field:	EQUIP_FUND_INTERNALLY	
Source Table:	Capital Investment Information	
Validate On Set:	No	

OTHER_INVEST   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	7
Required:	No
Source Field:	OTHER_INVEST
Source Table:	Capital Investment Information
Validate On Set:	No

OTHER_FUND_INTERNALLY   Number (Integer)   2

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	Percent
Ordinal Position:	8
Required:	No
Source Field:	OTHER_FUND_INTERNALLY
Source Table:	Capital Investment Information
Validate On Set:	No

Tempo   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	9
Required:	No
Source Field:	Tempo
Source Table:	Capital Investment Information
Validate On Set:	No

Relationships

Reference_Capital Investment Information

RailroadNames		pital Investment Informati
ID	1 ∞	CAP_INV_R_NO

Attributes: One to Many, Not Enforced

Table Indexes

Name	Number of Fields
PrimaryKey	1

Clustered:	No
Distinct Count:	230
Foreign:	No
Ignore Nulls:	No
Name:	PrimaryKey
Primary:	Yes
Required:	Yes
Unique:	Yes
Fields:	ID, Ascending

User Permissions

admin   Delete, Read Permissions, Set Permissions, Change Owner
guest

Group Permissions

Admins
Guests   Read Permissions
Users   Delete, Read Permissions, Set Permissions, Change Owner

Properties

Date Created:	8/19/93 3:21:53 PM		Def. Updatable:	Yes
Last Updated:	12/20/94 9:42:51 AM		Record Count:	230

Columns

Name	Type	Size
ID	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size, Auto-Increment
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	1
Required:	No
Source Field:	ID
Source Table:	Customer Information
Validate On Set:	No

Name	Type	Size
RAILROADIDNUMBER	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	Null
Format:	General Number
Ordinal Position:	2
Required:	No
Source Field:	RAILROADIDNUMBER
Source Table:	Customer Information
Validate On Set:	No

Name	Type	Size
COAL	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	3

Required:	No	
Source Field:	COAL	
Source Table:	Customer Information	
Validate On Set:	No	

FARM_PRODUCTS   Number (Long)   4

Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	4	
Required:	No	
Source Field:	FARM_PRODUCTS	
Source Table:	Customer Information	
Validate On Set:	No	

CHEMICAL_AND_ALLIED_PRODUCTS   Number (Long)   4

Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Format:	General Number	
Ordinal Position:	5	
Required:	No	
Source Field:	CHEMICAL_AND_ALLIED_PRODUCTS	
Source Table:	Customer Information	
Validate On Set:	No	

FOOD_AND_KINDRED_PRODUCTS   Number (Long)   4

Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Format:	General Number	
Ordinal Position:	6	
Required:	No	
Source Field:	FOOD_AND_KINDRED_PRODUCTS	
Source Table:	Customer Information	

Validate On Set: No

NON-METALLIC_MINERALS   Number (Long)   4

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	General Number
Ordinal Position:	7
Required:	No
Source Field:	NON-METALLIC_MINERALS
Source Table:	Customer Information
Validate On Set:	No

TRANSPORTATION_EQUIPMENT   Number (Long)   4

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	General Number
Ordinal Position:	8
Required:	No
Source Field:	TRANSPORTATION_EQUIPMENT
Source Table:	Customer Information
Validate On Set:	No

LUMBER_AND_WOOD_PRODUCTS   Number (Long)   4

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	General Number
Ordinal Position:	9
Required:	No
Source Field:	LUMBER_AND_WOOD_PRODUCTS
Source Table:	Customer Information
Validate On Set:	No

PULP_PAPER_AND_ALLIED_PRODUCTS   Number (Long)   4

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	General Number
Ordinal Position:	10
Required:	No
Source Field:	PULP_PAPER_AND_ALLIED_PRODUCTS
Source Table:	Customer Information
Validate On Set:	No

STONE_CLAY_AND_GLASS_PRODUCTS   Number (Long)   4

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	General Number
Ordinal Position:	11
Required:	No
Source Field:	STONE_CLAY_AND_GLASS_PRODUCTS
Source Table:	Customer Information
Validate On Set:	No

METALLIC_ORES   Number (Long)   4

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Format:	General Number
Ordinal Position:	12
Required:	No
Source Field:	METALLIC_ORES
Source Table:	Customer Information
Validate On Set:	No

PRIMARY_METAL_PRODUCTS   Number (Long)   4

Allow Zero Length:	No
Attributes:	Fixed Size

Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Format:	General Number	
Ordinal Position:	13	
Required:	No	
Source Field:	PRIMARY_METAL_PRODUCTS	
Source Table:	Customer Information	
Validate On Set:	No	

WASTE_AND_SCRAP_MATERIAL	Number (Long)	4
Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Format:	General Number	
Ordinal Position:	14	
Required:	No	
Source Field:	WASTE_AND_SCRAP_MATERIAL	
Source Table:	Customer Information	
Validate On Set:	No	

OTHERS	Number (Long)	4
Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Format:	General Number	
Ordinal Position:	15	
Required:	No	
Source Field:	OTHERS	
Source Table:	Customer Information	
Validate On Set:	No	

TOTAL_CUSTOMERS	Number (Double)	8
Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	

Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	16	
Required:	No	
Source Field:	TOTAL_CUSTOMERS	
Source Table:	Customer Information	
Validate On Set:	No	

PETROLEUM_PRODUCTS   Number (Long)   4

Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Format:	General Number	
Ordinal Position:	17	
Required:	No	
Source Field:	PETROLEUM_PRODUCTS	
Source Table:	Customer Information	
Validate On Set:	No	

Tempo   Number (Long)   4

Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	18	
Required:	No	
Source Field:	Tempo	
Source Table:	Customer Information	
Validate On Set:	No	

Relationships

Reference_Customer Information

RailroadNames			Customer Information
ID	1	1	RAILROADIDNUMBER

Attributes: One to One, Not Enforced

Table Indexes

Name	Number of Fields
PrimaryKey	1

Clustered:	No
Distinct Count:	230
Foreign:	No
Ignore Nulls:	No
Name:	PrimaryKey
Primary:	Yes
Required:	Yes
Unique:	Yes
Fields:	ID, Ascending

Name	Number of Fields
RAILROADIDNUMBER	1

Clustered:	No
Distinct Count:	230
Foreign:	No
Ignore Nulls:	No
Name:	RAILROADIDNUMBER
Primary:	No
Required:	No
Unique:	Yes
Fields:	RAILROADIDNUMBER, Ascending

User Permissions

admin	Delete, Read Permissions, Set Permissions, Change Owner
guest	

Group Permissions

Admins	
Guests	Read Permissions
Users	Delete, Read Permissions, Set Permissions, Change Owner

Properties

Date Created:	8/19/93 3:44:17 PM	Def. Updatable:	Yes
Last Updated:	12/20/94 9:42:51 AM	Record Count:	230

Columns

Name	Type	Size
ID	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size, Auto-Increment
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	1
Required:	No
Source Field:	ID
Source Table:	Employee Information
Validate On Set:	No

Name	Type	Size
ANN_COMP_R_NO	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Railroad Number
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	2
Required:	No
Source Field:	ANN_COMP_R_NO
Source Table:	Employee Information
Validate On Set:	No

Name	Type	Size
TOT_CONTRACT_EMP	Number (Double)	8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Total Contract Employees
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0

Ordinal Position:	3	
Required:	No	
Source Field:	TOT_CONTRACT_EMP	
Source Table:	Employee Information	
Validate On Set:	No	

TOT_NO_CONTRACT_EMP   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Total Non-Contract Employees
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	4
Required:	No
Source Field:	TOT_NO_CONTRACT_EMP
Source Table:	Employee Information
Validate On Set:	No

TOT_MAN_HOURS_WRKD   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Total Man Hours Worked
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	5
Required:	No
Source Field:	TOT_MAN_HOURS_WRKD
Source Table:	Employee Information
Validate On Set:	No

TOT_ANN_COMP_PAID   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Total Annual Compensation Paid
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	6
Required:	No

	Source Field:	TOT_ANN_COMP_PAID
	Source Table:	Employee Information
	Validate On Set:	No

Tempo   Number (Long)   4

	Allow Zero Length:	No
	Attributes:	Fixed Size
	Collating Order:	Unknown or Undefined
	Column Hidden:	No
	Column Order:	Default
	Column Width:	Default
	Data Updatable:	No
	Decimal Places:	Auto
	Default Value:	0
	Ordinal Position:	7
	Required:	No
	Source Field:	Tempo
	Source Table:	Employee Information
	Validate On Set:	No

Relationships

Reference_Employee Information

RailroadNames		Employee Information
ID	1 ———— ∞	ANN_COMP_R_NO

Attributes: One to Many, Not Enforced

Table Indexes

Name	Number of Fields
PrimaryKey	1

	Clustered:	No
	Distinct Count:	230
	Foreign:	No
	Ignore Nulls:	No
	Name:	PrimaryKey
	Primary:	Yes
	Required:	Yes
	Unique:	Yes
	Fields:	ID, Ascending

User Permissions

admin   Delete, Read Permissions, Set Permissions, Change Owner

guest

Group Permissions

Admins	
Guests	Read Permissions
Users	Delete, Read Permissions, Set Permissions, Change Owner

Properties

Date Created:	9/20/94 10:38:22 PM	Def. Updatable:	Yes
Last Updated:	12/20/94 9:42:52 AM	Record Count:	9

Columns

Name		Type	Size
EQUIP_R_NO		Number (Long)	4
	Allow Zero Length:	No	
	Attributes:	Fixed Size	
	Collating Order:	Unknown or Undefined	
	Column Hidden:	No	
	Column Order:	Default	
	Column Width:	Default	
	Data Updatable:	No	
	Decimal Places:	Auto	
	Default Value:	0	
	Ordinal Position:	1	
	Required:	No	
	Source Field:	EQUIP_R_NO	
	Source Table:	Equip Total	
	Validate On Set:	No	
CAR_LOCO_NAME		Text	50
	Allow Zero Length:	No	
	Attributes:	Variable Length	
	Collating Order:	General	
	Column Hidden:	No	
	Column Order:	Default	
	Column Width:	Default	
	Data Updatable:	No	
	Ordinal Position:	2	
	Required:	No	
	Source Field:	CAR_LOCO_NAME	
	Source Table:	Equip Total	
	Validate On Set:	No	
UNITS_OWN_LSS_10_YRS		Number (Double)	8
	Allow Zero Length:	No	
	Attributes:	Fixed Size	
	Collating Order:	Unknown or Undefined	
	Column Hidden:	No	
	Column Order:	Default	
	Column Width:	Default	
	Data Updatable:	No	
	Decimal Places:	Auto	
	Default Value:	0	
	Ordinal Position:	3	
	Required:	No	

	Source Field:	UNITS_OWN_LSS_10_YRS
	Source Table:	Equip Total
	Validate On Set:	No

UNITS_OWN_10_TO_20_YRS   Number (Double)   8

	Allow Zero Length:	No
	Attributes:	Fixed Size
	Collating Order:	Unknown or Undefined
	Column Hidden:	No
	Column Order:	Default
	Column Width:	Default
	Data Updatable:	No
	Decimal Places:	Auto
	Default Value:	0
	Ordinal Position:	4
	Required:	No
	Source Field:	UNITS_OWN_10_TO_20_YRS
	Source Table:	Equip Total
	Validate On Set:	No

UNITS_OWN_GTR_20_YRS   Number (Double)   8

	Allow Zero Length:	No
	Attributes:	Fixed Size
	Collating Order:	Unknown or Undefined
	Column Hidden:	No
	Column Order:	Default
	Column Width:	Default
	Data Updatable:	No
	Decimal Places:	Auto
	Default Value:	0
	Ordinal Position:	5
	Required:	No
	Source Field:	UNITS_OWN_GTR_20_YRS
	Source Table:	Equip Total
	Validate On Set:	No

UNITS_LEASED   Number (Double)   8

	Allow Zero Length:	No
	Attributes:	Fixed Size
	Collating Order:	Unknown or Undefined
	Column Hidden:	No
	Column Order:	Default
	Column Width:	Default
	Data Updatable:	No
	Decimal Places:	Auto
	Default Value:	0
	Ordinal Position:	6
	Required:	No
	Source Field:	UNITS_LEASED
	Source Table:	Equip Total
	Validate On Set:	No

UNITS_OWNED   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	7
Required:	No
Source Field:	UNITS_OWNED
Source Table:	Equip Total
Validate On Set:	No

Table Indexes

Name	Number of Fields
EQUIP_R_NO	1

Clustered:	No
Distinct Count:	9
Foreign:	No
Ignore Nulls:	No
Name:	EQUIP_R_NO
Primary:	No
Required:	No
Unique:	No
Fields:	EQUIP_R_NO, Ascending

User Permissions

admin	Delete, Read Permissions, Set Permissions, Change Owner
guest	

Group Permissions

Admins	
Guests	Read Permissions
Users	Delete, Read Permissions, Set Permissions, Change Owner

Properties

Date Created:	8/19/93 3:06:51 PM	Def. Updatable:	Yes
Last Updated:	12/20/94 9:42:52 AM	Record Count:	2079

Columns

Name	Type	Size
ID	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size, Auto-Increment
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	1
Required:	No
Source Field:	ID
Source Table:	Equipment Information
Validate On Set:	No

Name	Type	Size
EQUIP_R_NO	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Railroad Number
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	2
Required:	No
Source Field:	EQUIP_R_NO
Source Table:	Equipment Information
Validate On Set:	No

Name	Type	Size
CAR_LOCO_NAME	Text	50

Allow Zero Length:	No
Attributes:	Variable Length
Caption:	Car-Locomotive Id.
Collating Order:	General
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	3
Required:	No

Source Field:	CAR_LOCO_NAME	
Source Table:	Equipment Information	
Validate On Set:	No	

UNITS_OWN_LSS_10_YRS Number (Long) 4

Allow Zero Length:	No	
Attributes:	Fixed Size	
Caption:	Units Owned < 10 yrs. old	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	4	
Required:	No	
Source Field:	UNITS_OWN_LSS_10_YRS	
Source Table:	Equipment Information	
Validate On Set:	No	

UNITS_OWN_10_TO_20_YRS Number (Long) 4

Allow Zero Length:	No	
Attributes:	Fixed Size	
Caption:	Units Owned 10 - 20 yrs. old	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	5	
Required:	No	
Source Field:	UNITS_OWN_10_TO_20_YRS	
Source Table:	Equipment Information	
Validate On Set:	No	

UNITS_OWN_GTR_20_YRS Number (Long) 4

Allow Zero Length:	No	
Attributes:	Fixed Size	
Caption:	Units Owned > 20 yrs. old	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	6	
Required:	No	
Source Field:	UNITS_OWN_GTR_20_YRS	
Source Table:	Equipment Information	

	Validate On Set:	No	

UNITS_LEASED		Number (Long)	4
	Allow Zero Length:	No	
	Attributes:	Fixed Size	
	Caption:	Units Leased	
	Collating Order:	Unknown or Undefined	
	Column Hidden:	No	
	Column Order:	Default	
	Column Width:	Default	
	Data Updatable:	No	
	Decimal Places:	Auto	
	Default Value:	0	
	Ordinal Position:	7	
	Required:	No	
	Source Field:	UNITS_LEASED	
	Source Table:	Equipment Information	
	Validate On Set:	No	

UNITS_OWNED		Number (Long)	4
	Allow Zero Length:	No	
	Attributes:	Fixed Size	
	Collating Order:	Unknown or Undefined	
	Column Hidden:	No	
	Column Order:	Default	
	Column Width:	Default	
	Data Updatable:	No	
	Decimal Places:	Auto	
	Default Value:	0	
	Ordinal Position:	8	
	Required:	No	
	Source Field:	UNITS_OWNED	
	Source Table:	Equipment Information	
	Validate On Set:	No	

Tempo		Number (Double)	8
	Allow Zero Length:	No	
	Attributes:	Fixed Size	
	Collating Order:	Unknown or Undefined	
	Column Hidden:	No	
	Column Order:	Default	
	Column Width:	Default	
	Data Updatable:	No	
	Decimal Places:	Auto	
	Default Value:	0	
	Ordinal Position:	9	
	Required:	No	
	Source Field:	Tempo	
	Source Table:	Equipment Information	
	Validate On Set:	No	

ID1		Number (Integer)	2
	Allow Zero Length:	No	

Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	10
Required:	No
Source Field:	ID1
Source Table:	Equipment Information
Validate On Set:	No

Relationships

Reference_Equipment Information

RailroadNames		Equipment Information
ID	1 ∞	EQUIP_R_NO

Attributes:	One to Many, Not Enforced

Table Indexes

Name	Number of Fields
EQUIP_R_NO	1
Clustered:	No
Distinct Count:	231
Foreign:	No
Ignore Nulls:	No
Name:	EQUIP_R_NO
Primary:	No
Required:	No
Unique:	No
Fields:	EQUIP_R_NO, Ascending
PrimaryKey	1
Clustered:	No
Distinct Count:	2079
Foreign:	No
Ignore Nulls:	No
Name:	PrimaryKey
Primary:	Yes
Required:	Yes
Unique:	Yes
Fields:	ID, Ascending

User Permissions

admin	Delete, Read Permissions, Set Permissions, Change Owner
guest	

Group Permissions

Admins	
Guests	Read Permissions
Users	Delete, Read Permissions, Set Permissions, Change Owner

Properties

Date Created:	9/20/94 10:34:18 PM	Def. Updatable:	Yes
Last Updated:	12/20/94 9:42:52 AM	Record Count:	5

Columns

Name	Type	Size
FRA_TRACK_R_NO	Text	10

Allow Zero Length:	No
Attributes:	Variable Length
Collating Order:	General
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	1
Required:	No
Source Field:	FRA_TRACK_R_NO
Source Table:	FRA Total
Validate On Set:	No

Name	Type	Size
MILES_OF_ROAD	Number (Double)	8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	2
Required:	No
Source Field:	MILES_OF_ROAD
Source Table:	FRA Total
Validate On Set:	No

Name	Type	Size
AVG_OP_SPEED	Number (Double)	8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	3
Required:	No

Source Field:	AVG_OP_SPEED
Source Table:	FRA Total
Validate On Set:	No

User Permissions

    admin   Delete, Read Permissions, Set Permissions, Change Owner

    guest

Group Permissions

    Admins

    Guests   Read Permissions

    Users   Delete, Read Permissions, Set Permissions, Change Owner

Properties

Date Created:	8/19/93 2:58:51 PM	Def. Updatable:	Yes
Last Updated:	12/20/94 9:42:52 AM	Record Count:	1155

Columns

Name	Type	Size
ID	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size, Auto-Increment
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	1
Required:	No
Source Field:	ID
Source Table:	FRA-Track Class Information
Validate On Set:	No

Name	Type	Size
FRA_TRACK_R_NO	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Railroad Number
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	General Number
Ordinal Position:	2
Required:	No
Source Field:	FRA_TRACK_R_NO
Source Table:	FRA-Track Class Information
Validate On Set:	No

Name	Type	Size
MILES_OF_ROAD	Number (Double)	8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Miles of Road
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto

Default Value:	0	
Ordinal Position:	3	
Required:	No	
Source Field:	MILES_OF_ROAD	
Source Table:	FRA-Track Class Information	
Validate On Set:	No	

AVG_OP_SPEED   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Average Operating Speed
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	4
Required:	No
Source Field:	AVG_OP_SPEED
Source Table:	FRA-Track Class Information
Validate On Set:	No

CONCRETE   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Ordinal Position:	5
Required:	No
Source Field:	CONCRETE
Source Table:	FRA-Track Class Information
Validate On Set:	No

STEEL   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Ordinal Position:	6
Required:	No
Source Field:	STEEL
Source Table:	FRA-Track Class Information
Validate On Set:	No

WOOD   Number (Double)   8

    Allow Zero Length: No
    Attributes: Fixed Size
    Collating Order: Unknown or Undefined
    Column Hidden: No
    Column Order: Default
    Column Width: Default
    Data Updatable: No
    Decimal Places: Auto
    Ordinal Position: 7
    Required: No
    Source Field: WOOD
    Source Table: FRA-Track Class Information
    Validate On Set: No

COMBINATION   Number (Double)   8

    Allow Zero Length: No
    Attributes: Fixed Size
    Collating Order: Unknown or Undefined
    Column Hidden: No
    Column Order: Default
    Column Width: Default
    Data Updatable: No
    Decimal Places: Auto
    Ordinal Position: 8
    Required: No
    Source Field: COMBINATION
    Source Table: FRA-Track Class Information
    Validate On Set: No

NEWTIES   Number (Double)   8

    Allow Zero Length: No
    Attributes: Fixed Size
    Collating Order: Unknown or Undefined
    Column Hidden: No
    Column Order: Default
    Column Width: Default
    Data Updatable: No
    Decimal Places: Auto
    Ordinal Position: 9
    Required: No
    Source Field: NEWTIES
    Source Table: FRA-Track Class Information
    Validate On Set: No

USEDTIES   Number (Double)   8

    Allow Zero Length: No
    Attributes: Fixed Size
    Collating Order: Unknown or Undefined
    Column Hidden: No
    Column Order: Default
    Column Width: Default
    Data Updatable: No

Decimal Places:	Auto	
Ordinal Position:	10	
Required:	No	
Source Field:	USEDTIES	
Source Table:	FRA-Track Class Information	
Validate On Set:	No	

90POUNDSGREATER   Number (Double)   8

Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Ordinal Position:	11	
Required:	No	
Source Field:	90POUNDSGREATER	
Source Table:	FRA-Track Class Information	
Validate On Set:	No	

90POUNDSLESSER   Number (Double)   8

Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Ordinal Position:	12	
Required:	No	
Source Field:	90POUNDSLESSER	
Source Table:	FRA-Track Class Information	
Validate On Set:	No	

GREATERADDITIONAL   Number (Double)   8

Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Ordinal Position:	13	
Required:	No	
Source Field:	GREATERADDITIONAL	
Source Table:	FRA-Track Class Information	
Validate On Set:	No	

LESSERADDITIONAL   Number (Double)   8

Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Ordinal Position:	14	
Required:	No	
Source Field:	LESSERADDITIONAL	
Source Table:	FRA-Track Class Information	
Validate On Set:	No	

PUBLIC   Number (Double)   8

Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	15	
Required:	No	
Source Field:	PUBLIC	
Source Table:	FRA-Track Class Information	
Validate On Set:	No	

PRIVATE   Number (Double)   8

Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Ordinal Position:	16	
Required:	No	
Source Field:	PRIVATE	
Source Table:	FRA-Track Class Information	
Validate On Set:	No	

TOTAL   Number (Double)   8

Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	

Decimal Places: Auto
Ordinal Position: 17
Required: No
Source Field: TOTAL
Source Table: FRA-Track Class Information
Validate On Set: No

TOTAL_MILES   Number (Double)   8

Allow Zero Length: No
Attributes: Fixed Size
Collating Order: Unknown or Undefined
Column Hidden: No
Column Order: Default
Column Width: Default
Data Updatable: No
Decimal Places: Auto
Ordinal Position: 18
Required: No
Source Field: TOTAL_MILES
Source Table: FRA-Track Class Information
Validate On Set: No

Tempo   Number (Long)   4

Allow Zero Length: No
Attributes: Fixed Size
Collating Order: Unknown or Undefined
Column Hidden: No
Column Order: Default
Column Width: Default
Data Updatable: No
Decimal Places: Auto
Default Value: 0
Ordinal Position: 19
Required: No
Source Field: Tempo
Source Table: FRA-Track Class Information
Validate On Set: No

DENSITY   Number (Double)   8

Allow Zero Length: No
Attributes: Fixed Size
Collating Order: Unknown or Undefined
Column Hidden: No
Column Order: Default
Column Width: Default
Data Updatable: No
Decimal Places: Auto
Default Value: 0
Ordinal Position: 20
Required: No
Source Field: DENSITY
Source Table: FRA-Track Class Information
Validate On Set: No

Caption   Text   50

Allow Zero Length:	No	
Attributes:	Variable Length	
Collating Order:	General	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Ordinal Position:	21	
Required:	No	
Source Field:	Caption	
Source Table:	FRA-Track Class Information	
Validate On Set:	No	

ID1   Number (Integer)   2

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	22
Required:	No
Source Field:	ID1
Source Table:	FRA-Track Class Information
Validate On Set:	No

Relationships

Reference_FRA-Track Class Information

RailroadNames		RA-Track Class Informati
ID	1 ∞	FRA_TRACK_R_NO
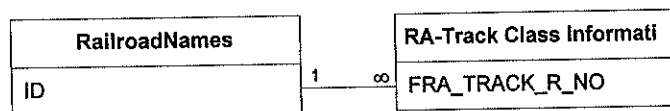
Attributes: One to Many, Not Enforced

Table Indexes

Name	Number of Fields
FRA_TRACK_R_NO	1

Clustered:	No
Distinct Count:	231
Foreign:	No
Ignore Nulls:	No
Name:	FRA_TRACK_R_NO
Primary:	No

	Required:	No
	Unique:	No
	Fields:	FRA_TRACK_R_NO, Ascending
PrimaryKey		1
	Clustered:	No
	Distinct Count:	1155
	Foreign:	No
	Ignore Nulls:	No
	Name:	PrimaryKey
	Primary:	Yes
	Required:	Yes
	Unique:	Yes
	Fields:	ID, Ascending

User Permissions

admin   Delete, Read Permissions, Set Permissions, Change Owner

guest

Group Permissions

Admins

Guests   Read Permissions

Users   Delete, Read Permissions, Set Permissions, Change Owner

Properties

Date Created:	8/19/93 10:41:44 AM	Def. Updatable:	Yes
Last Updated:	12/20/94 9:42:52 AM	Record Count:	231

Columns

Name	Type	Size
ID	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size, Auto-Increment
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	1
Required:	No
Source Field:	ID
Source Table:	GENPROF
Validate On Set:	No

Name	Type	Size
R_NUMBER	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Railroad Number
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	3120
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	2
Required:	No
Source Field:	R_NUMBER
Source Table:	GENPROF
Validate On Set:	No

Name	Type	Size
TOT_CUST_SERVE	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Total Customers Served
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	2280
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0

Ordinal Position:	4
Required:	No
Source Field:	TOT_CUST_SERVE
Source Table:	GENPROF
Validate On Set:	No

TOTAL_GALS_FUEL Number (Double) 8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Total Gallons of Fuel consumed
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	2856
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	5
Required:	No
Source Field:	TOTAL_GALS_FUEL
Source Table:	GENPROF
Validate On Set:	No

AVG_COST_PER_GAL Number (Double) 8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Avg_Cost_Per_Gallon
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	2052
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	General Number
Ordinal Position:	6
Required:	No
Source Field:	AVG_COST_PER_GAL
Source Table:	GENPROF
Validate On Set:	No

TRAIN_MILES Number (Double) 8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Train Miles
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	General Number

Ordinal Position:	7	
Required:	No	
Source Field:	TRAIN_MILES	
Source Table:	GENPROF	
Validate On Set:	No	

LOCO_MILES Number (Double) 8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Locomotive Miles
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	2148
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	8
Required:	No
Source Field:	LOCO_MILES
Source Table:	GENPROF
Validate On Set:	No

REVENUE_TON_MILES Number (Double) 8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Revenue Ton Miles
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	1896
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	9
Required:	No
Source Field:	REVENUE_TON_MILES
Source Table:	GENPROF
Validate On Set:	No

AVG_LENGTH_OF_HAUL Number (Double) 8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Average Length of Haul
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	2208
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	10
Required:	No

Source Field:	AVG_LENGTH_OF_HAUL	
Source Table:	GENPROF	
Validate On Set:	No	

IDLING_POLICY	Text	1
Allow Zero Length:	No	
Attributes:	Variable Length	
Caption:	Idling Policy	
Collating Order:	General	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Ordinal Position:	11	
Required:	No	
Source Field:	IDLING_POLICY	
Source Table:	GENPROF	
Validate On Set:	No	

AVG_REV_PER_CARLOAD	Number (Double)	8
Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	12	
Required:	No	
Source Field:	AVG_REV_PER_CARLOAD	
Source Table:	GENPROF	
Validate On Set:	No	

REVENUE_TON_MILE	Number (Double)	8
Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	13	
Required:	No	
Source Field:	REVENUE_TON_MILE	
Source Table:	GENPROF	
Validate On Set:	No	

Tempo	Number (Double)	8
Allow Zero Length:	No	

Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	14
Required:	No
Source Field:	Tempo
Source Table:	GENPROF
Validate On Set:	No

Relationships

Reference_GENPROF

RailroadNames		GENPROF
ID	1 ∞	R_NUMBER

Attributes: One to Many, Not Enforced

Table Indexes

Name	Number of Fields
PrimaryKey	1

Clustered:	No
Distinct Count:	231
Foreign:	No
Ignore Nulls:	No
Name:	PrimaryKey
Primary:	Yes
Required:	Yes
Unique:	Yes
Fields:	ID, Ascending

User Permissions

admin   Delete, Read Permissions, Set Permissions, Change Owner
guest

Group Permissions

Admins

| Guests | Read Permissions |
| Users | Delete, Read Permissions, Set Permissions, Change Owner |

Properties

Date Created:	8/19/93 4:06:16 PM	Def. Updatable:	Yes
Last Updated:	12/20/94 9:42:53 AM	Record Count:	231

Columns

Name	Type	Size
ID	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size, Auto-Increment
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	1
Required:	No
Source Field:	ID
Source Table:	Passenger Services Information
Validate On Set:	No

Name	Type	Size
PASS_R_NO	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Railroad Number
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	2
Required:	No
Source Field:	PASS_R_NO
Source Table:	Passenger Services Information
Validate On Set:	No

Name	Type	Size
PASS_SERVICES	Text	1

Allow Zero Length:	No
Attributes:	Variable Length
Caption:	Operate Passenger/Excursion Services (Y/N)
Collating Order:	General
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	3
Required:	No

		Source Field:	PASS_SERVICES
		Source Table:	Passenger Services Information
		Validate On Set:	No

SEASONAL_EX   Text   1

Allow Zero Length:	No
Attributes:	Variable Length
Caption:	Seasonal Services
Collating Order:	General
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	4
Required:	No
Source Field:	SEASONAL_EX
Source Table:	Passenger Services Information
Validate On Set:	No

DINNER_TRAIN   Text   1

Allow Zero Length:	No
Attributes:	Variable Length
Caption:	Dinner Train
Collating Order:	General
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	5
Required:	No
Source Field:	DINNER_TRAIN
Source Table:	Passenger Services Information
Validate On Set:	No

OTHER   Text   1

Allow Zero Length:	No
Attributes:	Variable Length
Caption:	Other Passenger Services
Collating Order:	General
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	6
Required:	No
Source Field:	OTHER
Source Table:	Passenger Services Information
Validate On Set:	No

ANN_REV_FROM_SERV   Currency   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Annual Revenue from Services

Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Format:	$#,##0.00;($#,##0.00)	
Ordinal Position:	7	
Required:	No	
Source Field:	ANN_REV_FROM_SERV	
Source Table:	Passenger Services Information	
Validate On Set:	No	

TOT_REV_PASS   Currency   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Total Revenue from Passengers
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	$#,##0.00;($#,##0.00)
Ordinal Position:	8
Required:	No
Source Field:	TOT_REV_PASS
Source Table:	Passenger Services Information
Validate On Set:	No

Tempo   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	9
Required:	No
Source Field:	Tempo
Source Table:	Passenger Services Information
Validate On Set:	No

Var1   Text   50

Allow Zero Length:	No
Attributes:	Variable Length
Collating Order:	General
Column Hidden:	No

	Column Order:	Default	
	Column Width:	Default	
	Data Updatable:	No	
	Ordinal Position:	10	
	Required:	No	
	Source Field:	Var1	
	Source Table:	Passenger Services Information	
	Validate On Set:	No	

Var2		Text	50
	Allow Zero Length:	No	
	Attributes:	Variable Length	
	Collating Order:	General	
	Column Hidden:	No	
	Column Order:	Default	
	Column Width:	Default	
	Data Updatable:	No	
	Ordinal Position:	11	
	Required:	No	
	Source Field:	Var2	
	Source Table:	Passenger Services Information	
	Validate On Set:	No	

Var3		Text	50
	Allow Zero Length:	No	
	Attributes:	Variable Length	
	Collating Order:	General	
	Column Hidden:	No	
	Column Order:	Default	
	Column Width:	Default	
	Data Updatable:	No	
	Ordinal Position:	12	
	Required:	No	
	Source Field:	Var3	
	Source Table:	Passenger Services Information	
	Validate On Set:	No	

Range1		Number (Double)	8
	Allow Zero Length:	No	
	Attributes:	Fixed Size	
	Collating Order:	Unknown or Undefined	
	Column Hidden:	No	
	Column Order:	Default	
	Column Width:	Default	
	Data Updatable:	No	
	Decimal Places:	Auto	
	Default Value:	0	
	Ordinal Position:	13	
	Required:	No	
	Source Field:	Range1	
	Source Table:	Passenger Services Information	
	Validate On Set:	No	

Range2		Number (Double)	8

	Allow Zero Length:	No
	Attributes:	Fixed Size
	Collating Order:	Unknown or Undefined
	Column Hidden:	No
	Column Order:	Default
	Column Width:	Default
	Data Updatable:	No
	Decimal Places:	Auto
	Default Value:	0
	Ordinal Position:	14
	Required:	No
	Source Field:	Range2
	Source Table:	Passenger Services Information
	Validate On Set:	No

n		Number (Integer)	2

	Allow Zero Length:	No
	Attributes:	Fixed Size
	Collating Order:	Unknown or Undefined
	Column Hidden:	No
	Column Order:	Default
	Column Width:	Default
	Data Updatable:	No
	Decimal Places:	Auto
	Default Value:	0
	Ordinal Position:	15
	Required:	No
	Source Field:	n
	Source Table:	Passenger Services Information
	Validate On Set:	No

Relationships

Reference_Passenger Services Information

RailroadNames		senger Services Informat
ID	1 ──── ∞	PASS_R_NO

Attributes: One to Many, Not Enforced

Table Indexes

Name	Number of Fields
PrimaryKey	1

	Clustered:	No
	Distinct Count:	231
	Foreign:	No
	Ignore Nulls:	No

Name:	PrimaryKey
Primary:	Yes
Required:	Yes
Unique:	Yes
Fields:	ID, Ascending

User Permissions

admin   Delete, Read Permissions, Set Permissions, Change Owner

guest

Group Permissions

Admins

Guests   Read Permissions

Users   Delete, Read Permissions, Set Permissions, Change Owner

Properties

Date Created:	8/19/93 3:27:57 PM		Def. Updatable:	Yes
Last Updated:	12/20/94 9:42:53 AM		Record Count:	231

Columns

Name	Type	Size
ID	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size, Auto-Increment
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	1
Required:	No
Source Field:	ID
Source Table:	Port Customers Information
Validate On Set:	No

Name	Type	Size
PORT_R_NO	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Railorad Number
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	2
Required:	No
Source Field:	PORT_R_NO
Source Table:	Port Customers Information
Validate On Set:	No

Name	Type	Size
BREAKBULK	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Breakbulk
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0

Ordinal Position: 3
Required: No
Source Field: BREAKBULK
Source Table: Port Customers Information
Validate On Set: No

CONTAINER Number (Long) 4

Allow Zero Length: No
Attributes: Fixed Size
Caption: Container
Collating Order: Unknown or Undefined
Column Hidden: No
Column Order: Default
Column Width: Default
Data Updatable: No
Decimal Places: Auto
Default Value: 0
Ordinal Position: 4
Required: No
Source Field: CONTAINER
Source Table: Port Customers Information
Validate On Set: No

GRAIN Number (Long) 4

Allow Zero Length: No
Attributes: Fixed Size
Caption: Grain
Collating Order: Unknown or Undefined
Column Hidden: No
Column Order: Default
Column Width: Default
Data Updatable: No
Decimal Places: Auto
Default Value: 0
Ordinal Position: 5
Required: No
Source Field: GRAIN
Source Table: Port Customers Information
Validate On Set: No

COAL Number (Long) 4

Allow Zero Length: No
Attributes: Fixed Size
Caption: Coal
Collating Order: Unknown or Undefined
Column Hidden: No
Column Order: Default
Column Width: Default
Data Updatable: No
Decimal Places: Auto
Default Value: 0
Ordinal Position: 6
Required: No

Source Field:	COAL
Source Table:	Port Customers Information
Validate On Set:	No

DRY_BULK   Number (Long)   4

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Dry Bulk
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	7
Required:	No
Source Field:	DRY_BULK
Source Table:	Port Customers Information
Validate On Set:	No

PETROLEUM   Number (Long)   4

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Petroleum
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	8
Required:	No
Source Field:	PETROLEUM
Source Table:	Port Customers Information
Validate On Set:	No

LIQUID_BULK   Number (Long)   4

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Liquid Bulk
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	9
Required:	No
Source Field:	LIQUID_BULK
Source Table:	Port Customers Information

Validate On Set: No

Tempo   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	10
Required:	No
Source Field:	Tempo
Source Table:	Port Customers Information
Validate On Set:	No

Relationships

Reference_Port Customers Information

RailroadNames		ort Customers Informatio
ID	1 ∞	PORT_R_NO

Attributes: One to Many, Not Enforced

Table Indexes

Name	Number of Fields
PrimaryKey	1

Clustered:	No
Distinct Count:	231
Foreign:	No
Ignore Nulls:	No
Name:	PrimaryKey
Primary:	Yes
Required:	Yes
Unique:	Yes
Fields:	ID, Ascending

User Permissions

admin   Delete, Read Permissions, Set Permissions, Change Owner
guest

Group Permissions

Admins

Guests   Read Permissions

Users   Delete, Read Permissions, Set Permissions, Change Owner

Properties

Date Created:	8/31/93 2:06:14 PM		Def. Updatable:	Yes
Last Updated:	12/20/94 9:42:53 AM		Record Count:	230

Columns

Name	Type	Size
ID	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size, Auto-Increment
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	1
Required:	No
Source Field:	ID
Source Table:	RailroadNames
Validate On Set:	No

Name	Type	Size
RAIL_NAME	Text	100

Allow Zero Length:	No
Attributes:	Variable Length
Collating Order:	General
Column Hidden:	No
Column Order:	Default
Column Width:	4080
Data Updatable:	No
Ordinal Position:	2
Required:	No
Source Field:	RAIL_NAME
Source Table:	RailroadNames
Validate On Set:	No

Name	Type	Size
R_OWNER	Text	50

Allow Zero Length:	No
Attributes:	Variable Length
Collating Order:	General
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	3
Required:	No
Source Field:	R_OWNER
Source Table:	RailroadNames
Validate On Set:	No

R_YEAR	Number (Integer)	2

Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Format:	General Number	
Ordinal Position:	4	
Required:	No	
Source Field:	R_YEAR	
Source Table:	RailroadNames	
Validate On Set:	No	
Validation Rule:	1850-2010	
Validation Text:	Please Enter Appropriate Year	

RAILTYPE	Text	100

Allow Zero Length:	No	
Attributes:	Variable Length	
Collating Order:	General	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Ordinal Position:	5	
Required:	No	
Source Field:	RAILTYPE	
Source Table:	RailroadNames	
Validate On Set:	No	

CONTACTPERSON	Text	50

Allow Zero Length:	No	
Attributes:	Variable Length	
Collating Order:	General	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Format:	"@;NONE"	
Ordinal Position:	6	
Required:	No	
Source Field:	CONTACTPERSON	
Source Table:	RailroadNames	
Validate On Set:	No	

REGION	Text	100

Allow Zero Length:	No	
Attributes:	Variable Length	
Collating Order:	General	
Column Hidden:	No	

Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	7
Required:	No
Source Field:	REGION
Source Table:	RailroadNames
Validate On Set:	No

Tempo   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	8
Required:	No
Source Field:	Tempo
Source Table:	RailroadNames
Validate On Set:	No

Relationships

Reference

RailroadNames		nnual Operating Statistic
ID	1 ∞	ANNUAL_OP_R_NO

Attributes: One to Many, Not Enforced

Reference_Auxiliary Financial Information
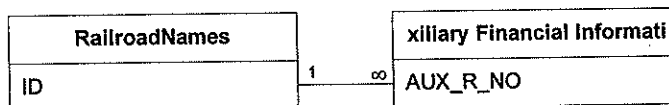
RailroadNames		xiliary Financial Informati
ID	1 ∞	AUX_R_NO

Attributes: One to Many, Not Enforced

Reference_Base Financial Information

RailroadNames		ase Financial Informatio
ID	1 ———— ∞	FIN_R_NO

Attributes: One to Many, Not Enforced

Reference_Benefit Plans Information

RailroadNames		Benefit Plans Information
ID	1 ———— ∞	BENEFIT_R_NO

Attributes: One to Many, Not Enforced

Reference_Capital Investment Information

RailroadNames		pital Investment Informati
ID	1 ———— ∞	CAP_INV_R_NO

Attributes: One to Many, Not Enforced

Reference_Customer Information

RailroadNames		Customer Information
ID	1 ———— 1	RAILROADIDNUMBER
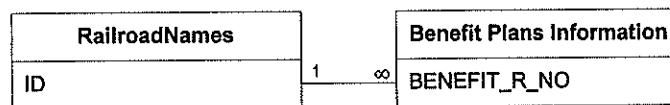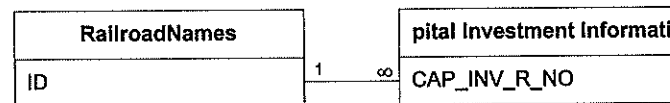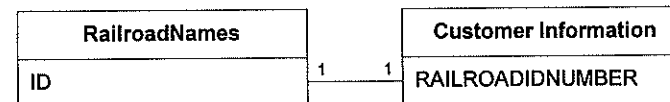
Attributes: One to One, Not Enforced

Reference_Employee Information
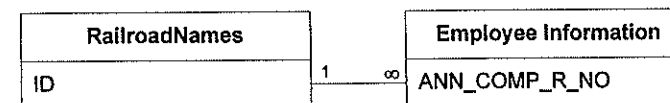
RailroadNames		Employee Information
ID	1 ———— ∞	ANN_COMP_R_NO

Attributes: One to Many, Not Enforced

Reference_Equipment Information

RailroadNames		Equipment Information
ID	1 ∞	EQUIP_R_NO
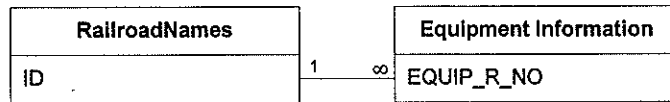
Attributes: One to Many, Not Enforced

Reference_FRA-Track Class Information

RailroadNames		RA-Track Class Informati
ID	1 ∞	FRA_TRACK_R_NO
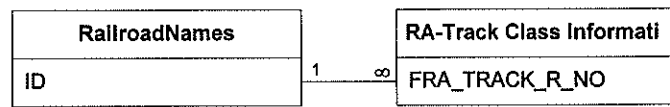
Attributes: One to Many, Not Enforced

Reference_GENPROF
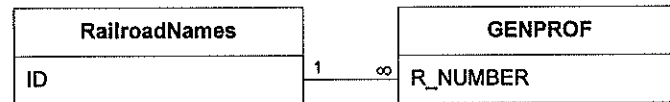
RailroadNames		GENPROF
ID	1 ∞	R_NUMBER

Attributes: One to Many, Not Enforced

Reference_Passenger Services Information

RailroadNames		senger Services Informat
ID	1 ∞	PASS_R_NO

Attributes: One to Many, Not Enforced
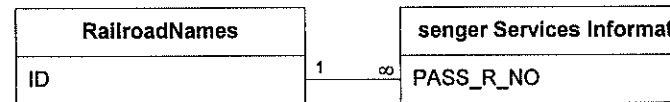
Reference_Port Customers Information

RailroadNames		ort Customers Informatio
ID	1 ∞	PORT_R_NO
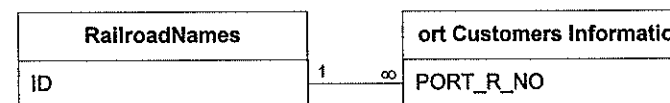
Attributes: One to Many, Not Enforced

Reference_Roadway Information

RailroadNames		Roadway Information
ID	1 —— ∞	ROADWAY_R_NO
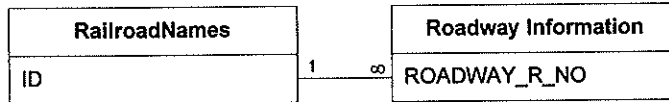
Attributes: One to Many, Not Enforced

Table Indexes

Name	Number of Fields
CONTACTPERSON	1

Clustered:	No
Distinct Count:	179
Foreign:	No
Ignore Nulls:	No
Name:	CONTACTPERSON
Primary:	No
Required:	No
Unique:	No
Fields:	CONTACTPERSON, Ascending

PrimaryKey	1
Clustered:	No
Distinct Count:	230
Foreign:	No
Ignore Nulls:	No
Name:	PrimaryKey
Primary:	Yes
Required:	Yes
Unique:	Yes
Fields:	ID, Ascending

R_OWNER	1
Clustered:	No
Distinct Count:	155
Foreign:	No
Ignore Nulls:	No
Name:	R_OWNER
Primary:	No
Required:	No
Unique:	No
Fields:	R_OWNER, Ascending

R_YEAR	1
Clustered:	No
Distinct Count:	12
Foreign:	No
Ignore Nulls:	No
Name:	R_YEAR
Primary:	No

Required:	No
Unique:	No
Fields:	R_YEAR, Ascending
Rail Name Index	1
Clustered:	No
Distinct Count:	230
Foreign:	No
Ignore Nulls:	No
Name:	Rail Name Index
Primary:	No
Required:	No
Unique:	No
Fields:	RAIL_NAME, Ascending

User Permissions

admin	Delete, Read Permissions, Set Permissions, Change Owner
guest	

Group Permissions

Admins	
Guests	Read Permissions
Users	Delete, Read Permissions, Set Permissions, Change Owner

Properties

Date Created:	8/13/94 1:36:59 AM	Def. Updatable:	Yes
Last Updated:	12/20/94 9:42:53 AM	Record Count:	376

Columns

Name		Type	Size
ID		Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size, Auto-Increment
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	1
Required:	No
Source Field:	ID
Source Table:	RAVI
Validate On Set:	No

Name		Type	Size
ABBR		Text	10

Allow Zero Length:	No
Attributes:	Variable Length
Collating Order:	General
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	2
Required:	No
Source Field:	ABBR
Source Table:	RAVI
Validate On Set:	No

Name		Type	Size
RRNAME		Text	100

Allow Zero Length:	No
Attributes:	Variable Length
Collating Order:	General
Column Hidden:	No
Column Order:	Default
Column Width:	5430
Data Updatable:	No
Ordinal Position:	3
Required:	No
Source Field:	RRNAME
Source Table:	RAVI
Validate On Set:	No

REGION	Text	50

Allow Zero Length:	No
Attributes:	Variable Length
Collating Order:	General
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	4
Required:	No
Source Field:	REGION
Source Table:	RAVI
Validate On Set:	No

Table Indexes

Name	Number of Fields
PrimaryKey	1

Clustered:	No
Distinct Count:	376
Foreign:	No
Ignore Nulls:	No
Name:	PrimaryKey
Primary:	Yes
Required:	Yes
Unique:	Yes
Fields:	ID, Ascending

User Permissions

admin	Delete, Read Permissions, Set Permissions, Change Owner
guest	

Group Permissions

Admins	
Guests	Read Permissions
Users	Delete, Read Permissions, Set Permissions, Change Owner

Properties

Date Created:	10/20/93 8:23:52 PM	Def. Updatable:	Yes
Last Updated:	12/20/94 9:42:54 AM	Record Count:	1

Columns

Name	Type	Size
ID	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size, Auto-Increment
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	1
Required:	No
Source Field:	ID
Source Table:	Report Table
Validate On Set:	No

Name	Type	Size
Total Railroads	Number (Integer)	2

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	2
Required:	No
Source Field:	Total Railroads
Source Table:	Report Table
Validate On Set:	No

Name	Type	Size
Total Customers	Number (Double)	8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	3
Required:	No

Source Field:	Total Customers	
Source Table:	Report Table	
Validate On Set:	No	

Sum of Bridges	Number (Double)	8
Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	4	
Required:	No	
Source Field:	Sum of Bridges	
Source Table:	Report Table	
Validate On Set:	No	

Sum of Used Ties in Replacement	Number (Double)	8
Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	5	
Required:	No	
Source Field:	Sum of Used Ties in Replacement	
Source Table:	Report Table	
Validate On Set:	No	

Sum of New Ties in Replacement	Number (Double)	8
Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	6	
Required:	No	
Source Field:	Sum of New Ties in Replacement	
Source Table:	Report Table	
Validate On Set:	No	

Sum of Replace Gtr 90 lbs	Number (Double)	8

	Allow Zero Length:	No
	Attributes:	Fixed Size
	Collating Order:	Unknown or Undefined
	Column Hidden:	No
	Column Order:	Default
	Column Width:	Default
	Data Updatable:	No
	Decimal Places:	Auto
	Default Value:	0
	Ordinal Position:	7
	Required:	No
	Source Field:	Sum of Replace Gtr 90 lbs
	Source Table:	Report Table
	Validate On Set:	No

Sum of Replace Less 90 lbs   Number (Double)   8

	Allow Zero Length:	No
	Attributes:	Fixed Size
	Collating Order:	Unknown or Undefined
	Column Hidden:	No
	Column Order:	Default
	Column Width:	Default
	Data Updatable:	No
	Decimal Places:	Auto
	Default Value:	0
	Ordinal Position:	8
	Required:	No
	Source Field:	Sum of Replace Less 90 lbs
	Source Table:	Report Table
	Validate On Set:	No

Sum of Add Trks Gtr 90 lbs   Number (Double)   8

	Allow Zero Length:	No
	Attributes:	Fixed Size
	Collating Order:	Unknown or Undefined
	Column Hidden:	No
	Column Order:	Default
	Column Width:	Default
	Data Updatable:	No
	Decimal Places:	Auto
	Default Value:	0
	Ordinal Position:	9
	Required:	No
	Source Field:	Sum of Add Trks Gtr 90 lbs
	Source Table:	Report Table
	Validate On Set:	No

Sum of Add Trks Less 90 lbs   Number (Double)   8

	Allow Zero Length:	No
	Attributes:	Fixed Size
	Collating Order:	Unknown or Undefined
	Column Hidden:	No
	Column Order:	Default

Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	10	
Required:	No	
Source Field:	Sum of Add Trks Less 90 lbs	
Source Table:	Report Table	
Validate On Set:	No	

Sum of Total Gals of Fuel   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	11
Required:	No
Source Field:	Sum of Total Gals of Fuel
Source Table:	Report Table
Validate On Set:	No

Sum of Train Miles   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	12
Required:	No
Source Field:	Sum of Train Miles
Source Table:	Report Table
Validate On Set:	No

Sum of Locomotive Miles   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	13

Required:	No	
Source Field:	Sum of Locomotive Miles	
Source Table:	Report Table	
Validate On Set:	No	

Sum of Revenue Ton Miles	Number (Double)	8
Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	14	
Required:	No	
Source Field:	Sum of Revenue Ton Miles	
Source Table:	Report Table	
Validate On Set:	No	

Mean of Miles	Number (Double)	8
Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	15	
Required:	No	
Source Field:	Mean of Miles	
Source Table:	Report Table	
Validate On Set:	No	

Sum of Miles	Number (Double)	8
Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	16	
Required:	No	
Source Field:	Sum of Miles	
Source Table:	Report Table	
Validate On Set:	No	

Sum of Car Units Owned   Number (Double)   8
    Allow Zero Length: No
    Attributes: Fixed Size
    Collating Order: Unknown or Undefined
    Column Hidden: No
    Column Order: Default
    Column Width: Default
    Data Updatable: No
    Decimal Places: Auto
    Default Value: 0
    Ordinal Position: 17
    Required: No
    Source Field: Sum of Car Units Owned
    Source Table: Report Table
    Validate On Set: No

Sum of Car Units Leased   Number (Double)   8
    Allow Zero Length: No
    Attributes: Fixed Size
    Collating Order: Unknown or Undefined
    Column Hidden: No
    Column Order: Default
    Column Width: Default
    Data Updatable: No
    Decimal Places: Auto
    Default Value: 0
    Ordinal Position: 18
    Required: No
    Source Field: Sum of Car Units Leased
    Source Table: Report Table
    Validate On Set: No

Sum of Car Units Own Less 10 Years   Number (Double)   8
    Allow Zero Length: No
    Attributes: Fixed Size
    Collating Order: Unknown or Undefined
    Column Hidden: No
    Column Order: Default
    Column Width: Default
    Data Updatable: No
    Decimal Places: Auto
    Default Value: 0
    Ordinal Position: 19
    Required: No
    Source Field: Sum of Car Units Own Less 10 Years
    Source Table: Report Table
    Validate On Set: No

Sum of Car Units Own 10 to 20 Years   Number (Double)   8
    Allow Zero Length: No
    Attributes: Fixed Size
    Collating Order: Unknown or Undefined
    Column Hidden: No

Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	20	
Required:	No	
Source Field:	Sum of Car Units Own 10 to 20 Years	
Source Table:	Report Table	
Validate On Set:	No	

Sum of Car Units Own Gtr 20 Years   Number (Double)   8

Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	21	
Required:	No	
Source Field:	Sum of Car Units Own Gtr 20 Years	
Source Table:	Report Table	
Validate On Set:	No	

Percent of Car Units Own Less 10 Years   Number (Double)   8

Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Format:	Percent	
Ordinal Position:	22	
Required:	No	
Source Field:	Percent of Car Units Own Less 10 Years	
Source Table:	Report Table	
Validate On Set:	No	

Percent of Car Units Own 10 to 20 Years   Number (Double)   8

Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	

Default Value:	0	
Format:	Percent	
Ordinal Position:	23	
Required:	No	
Source Field:	Percent of Car Units Own 10 to 20 Years	
Source Table:	Report Table	
Validate On Set:	No	

Percent of Car Units Own Gtr 20 Years   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	Percent
Ordinal Position:	24
Required:	No
Source Field:	Percent of Car Units Own Gtr 20 Years
Source Table:	Report Table
Validate On Set:	No

Sum of Loco Units Owned   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	25
Required:	No
Source Field:	Sum of Loco Units Owned
Source Table:	Report Table
Validate On Set:	No

Sum of Loco Units Leased   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	26
Required:	No

Source Field:	Sum of Loco Units Leased	
Source Table:	Report Table	
Validate On Set:	No	

Sum of Loco Units Own Less 10 Years Number (Double) 8

Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	27	
Required:	No	
Source Field:	Sum of Loco Units Own Less 10 Years	
Source Table:	Report Table	
Validate On Set:	No	

Sum of Loco Units Own 10 to 20 Years Number (Double) 8

Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	28	
Required:	No	
Source Field:	Sum of Loco Units Own 10 to 20 Years	
Source Table:	Report Table	
Validate On Set:	No	

Sum of Loco Units Own Gtr 20 Years Number (Double) 8

Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	29	
Required:	No	
Source Field:	Sum of Loco Units Own Gtr 20 Years	
Source Table:	Report Table	
Validate On Set:	No	

Percent of Loco Units Own Less 10 Years Number (Double) 8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	Percent
Ordinal Position:	30
Required:	No
Source Field:	Percent of Loco Units Own Less 10 Years
Source Table:	Report Table
Validate On Set:	No

Percent of Loco Units Own 10 to 20 Years　　　　　Number (Double)　　　　8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	Percent
Ordinal Position:	31
Required:	No
Source Field:	Percent of Loco Units Own 10 to 20 Years
Source Table:	Report Table
Validate On Set:	No

Percent of Loco Units Own Gtr 20 Years　　　　　Number (Double)　　　　8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	Percent
Ordinal Position:	32
Required:	No
Source Field:	Percent of Loco Units Own Gtr 20 Years
Source Table:	Report Table
Validate On Set:	No

Sum of Car Org Term Online　　　　　Number (Double)　　　　8

Allow Zero Length:	No
Attributes:	Fixed Size

Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	33	
Required:	No	
Source Field:	Sum of Car Org Term Online	
Source Table:	Report Table	
Validate On Set:	No	

Sum of Intrlnd Cars Org   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	34
Required:	No
Source Field:	Sum of Intrlnd Cars Org
Source Table:	Report Table
Validate On Set:	No

Sum of Intrlnd Cars Term   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	35
Required:	No
Source Field:	Sum of Intrlnd Cars Term
Source Table:	Report Table
Validate On Set:	No

Sum of Bridge Cars   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No

Decimal Places:	Auto
Default Value:	0
Ordinal Position:	36
Required:	No
Source Field:	Sum of Bridge Cars
Source Table:	Report Table
Validate On Set:	No

Total Cars   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	37
Required:	No
Source Field:	Total Cars
Source Table:	Report Table
Validate On Set:	No

Train Miles per Car   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	38
Required:	No
Source Field:	Train Miles per Car
Source Table:	Report Table
Validate On Set:	No

Locomotive Miles per Car   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	39
Required:	No
Source Field:	Locomotive Miles per Car

Source Table: Report Table
Validate On Set: No

Revenue Ton Miles per Car   Number (Double)   8

Allow Zero Length: No
Attributes: Fixed Size
Collating Order: Unknown or Undefined
Column Hidden: No
Column Order: Default
Column Width: Default
Data Updatable: No
Decimal Places: Auto
Default Value: 0
Ordinal Position: 40
Required: No
Source Field: Revenue Ton Miles per Car
Source Table: Report Table
Validate On Set: No

Gallons per Revenue Ton Miles   Number (Double)   8

Allow Zero Length: No
Attributes: Fixed Size
Collating Order: Unknown or Undefined
Column Hidden: No
Column Order: Default
Column Width: Default
Data Updatable: No
Decimal Places: Auto
Default Value: 0
Ordinal Position: 41
Required: No
Source Field: Gallons per Revenue Ton Miles
Source Table: Report Table
Validate On Set: No

Sum of Gross Rail Operatin Revenue   Currency   8

Allow Zero Length: No
Attributes: Fixed Size
Collating Order: Unknown or Undefined
Column Hidden: No
Column Order: Default
Column Width: Default
Data Updatable: No
Decimal Places: Auto
Default Value: 0
Ordinal Position: 42
Required: No
Source Field: Sum of Gross Rail Operatin Revenue
Source Table: Report Table
Validate On Set: No

Sum of Total Rail Op Expenses   Currency   8

Allow Zero Length: No

Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	43	
Required:	No	
Source Field:	Sum of Total Rail Op Expenses	
Source Table:	Report Table	
Validate On Set:	No	

Sum of Net Rail Op Income	Currency	8
Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	44	
Required:	No	
Source Field:	Sum of Net Rail Op Income	
Source Table:	Report Table	
Validate On Set:	No	

Total Employer Contribution	Currency	8
Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	
Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	45	
Required:	No	
Source Field:	Total Employer Contribution	
Source Table:	Report Table	
Validate On Set:	No	

Sum of Total Man Hours	Number (Double)	8
Allow Zero Length:	No	
Attributes:	Fixed Size	
Collating Order:	Unknown or Undefined	
Column Hidden:	No	
Column Order:	Default	
Column Width:	Default	

Data Updatable:	No	
Decimal Places:	Auto	
Default Value:	0	
Ordinal Position:	46	
Required:	No	
Source Field:	Sum of Total Man Hours	
Source Table:	Report Table	
Validate On Set:	No	

Sum of Total Ann Comp Paid   Currency   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	47
Required:	No
Source Field:	Sum of Total Ann Comp Paid
Source Table:	Report Table
Validate On Set:	No

Sum of Ann Revenue from Serv   Currency   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	48
Required:	No
Source Field:	Sum of Ann Revenue from Serv
Source Table:	Report Table
Validate On Set:	No

Sum of Total Revenue from Pass   Currency   8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	49
Required:	No

Source Field:	Sum of Total Revenue from Pass
Source Table:	Report Table
Validate On Set:	No

Weigthed Average of Avg Length of Haul　　　　Number (Double)　　　　8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	50
Required:	No
Source Field:	Weigthed Average of Avg Length of Haul
Source Table:	Report Table
Validate On Set:	No

Weighted Average of Cost per Gallon　　　　Currency　　　　8

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	51
Required:	No
Source Field:	Weighted Average of Cost per Gallon
Source Table:	Report Table
Validate On Set:	No

NAME　　　　Text　　　　50

Allow Zero Length:	No
Attributes:	Variable Length
Collating Order:	General
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	52
Required:	No
Source Field:	NAME
Source Table:	Report Table
Validate On Set:	No

NAMEID　　　　Number (Integer)　　　　2

Allow Zero Length:	No
Attributes:	Fixed Size

Collating Order: Unknown or Undefined
Column Hidden: No
Column Order: Default
Column Width: Default
Data Updatable: No
Decimal Places: Auto
Default Value: 0
Ordinal Position: 53
Required: No
Source Field: NAMEID
Source Table: Report Table
Validate On Set: No

Table Indexes

Name	Number of Fields
NAMEID	1

    Clustered: No
    Distinct Count: 1
    Foreign: No
    Ignore Nulls: No
    Name: NAMEID
    Primary: No
    Required: No
    Unique: No
    Fields: NAMEID, Ascending

PrimaryKey	1

    Clustered: No
    Distinct Count: 1
    Foreign: No
    Ignore Nulls: No
    Name: PrimaryKey
    Primary: Yes
    Required: Yes
    Unique: Yes
    Fields: ID, Ascending

User Permissions

admin   Delete, Read Permissions, Set Permissions, Change Owner
guest

Group Permissions

Admins
Guests   Read Permissions
Users   Delete, Read Permissions, Set Permissions, Change Owner

Properties

Date Created:	8/19/93 2:48:46 PM	Def. Updatable:	Yes
Last Updated:	12/20/94 9:42:54 AM	Record Count:	1872

Columns

Name	Type	Size
ID	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size, Auto-Increment
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	1
Required:	No
Source Field:	ID
Source Table:	Roadway Information
Validate On Set:	No

Name	Type	Size
ROADWAY_R_NO	Number (Long)	4

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Railroad Number
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	General Number
Ordinal Position:	2
Required:	No
Source Field:	ROADWAY_R_NO
Source Table:	Roadway Information
Validate On Set:	No

Name	Type	Size
STATE_ID	Text	2

Allow Zero Length:	No
Attributes:	Variable Length
Caption:	State Id
Collating Order:	General
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Default Value:	" "

Ordinal Position:	3
Required:	No
Source Field:	STATE_ID
Source Table:	Roadway Information
Validate On Set:	No

MILES_OWNED   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Miles Owned
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	4
Required:	No
Source Field:	MILES_OWNED
Source Table:	Roadway Information
Validate On Set:	No

PER_OWN_GTR_90_LBS   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Route miles of Owned > 90 lbs.
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Format:	General Number
Ordinal Position:	5
Required:	No
Source Field:	PER_OWN_GTR_90_LBS
Source Table:	Roadway Information
Validate On Set:	No

MILES_OPERATED   Number (Double)   8

Allow Zero Length:	No
Attributes:	Fixed Size
Caption:	Miles Operated
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	6

Required:	No		
Source Field:	MILES_OPERATED		
Source Table:	Roadway Information		
Validate On Set:	No		

Tempo   Number (Long)   4

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	7
Required:	No
Source Field:	Tempo
Source Table:	Roadway Information
Validate On Set:	No

Relationships

Reference_Roadway Information
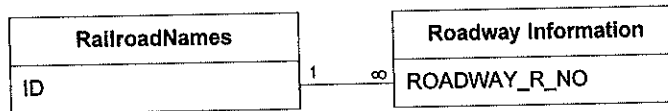
RailroadNames		Roadway Information
ID	1 ∞	ROADWAY_R_NO

Attributes: One to Many, Not Enforced

Table Indexes

Name	Number of Fields
PrimaryKey	1

Clustered:	No
Distinct Count:	1872
Foreign:	No
Ignore Nulls:	No
Name:	PrimaryKey
Primary:	Yes
Required:	Yes
Unique:	Yes
Fields:	ID, Ascending

Name	Number of Fields
ROADWAY_R_NO	1

Clustered:	No
Distinct Count:	234
Foreign:	No
Ignore Nulls:	No

Name:	ROADWAY_R_NO
Primary:	No
Required:	No
Unique:	No
Fields:	ROADWAY_R_NO, Ascending

User Permissions

admin   Delete, Read Permissions, Set Permissions, Change Owner

guest

Group Permissions

Admins

Guests   Read Permissions

Users   Delete, Read Permissions, Set Permissions, Change Owner

Properties

Date Created:	8/15/94 2:09:10 AM	Def. Updatable:	Yes
Last Updated:	12/20/94 9:42:54 AM	Record Count:	3

Columns

Name	Type	Size
	Text	50

RAIL_NAME

Allow Zero Length:	No
Attributes:	Variable Length
Collating Order:	General
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	1
Required:	No
Source Field:	RAIL_NAME
Source Table:	Temp
Validate On Set:	No

	Text	50

REGION

Allow Zero Length:	No
Attributes:	Variable Length
Collating Order:	General
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	2
Required:	No
Source Field:	REGION
Source Table:	Temp
Validate On Set:	No

	Number (Long)	4

ID1

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	3
Required:	No
Source Field:	ID1
Source Table:	Temp

Validate On Set: No

STRATVAR   Number (Long)   4

Allow Zero Length:	No
Attributes:	Fixed Size
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Decimal Places:	Auto
Default Value:	0
Ordinal Position:	9
Required:	No
Source Field:	STRATVAR
Source Table:	Temp
Validate On Set:	No

c   Number (Long)   4

Allow Zero Length:	No
Attributes:	Fixed Size, Auto-Increment
Collating Order:	Unknown or Undefined
Column Hidden:	No
Column Order:	Default
Column Width:	Default
Data Updatable:	No
Ordinal Position:	10
Required:	No
Source Field:	c
Source Table:	Temp
Validate On Set:	No

Table Indexes

Name	Number of Fields
PrimaryKey	1

Clustered:	No
Distinct Count:	3
Foreign:	No
Ignore Nulls:	No
Name:	PrimaryKey
Primary:	Yes
Required:	Yes
Unique:	Yes
Fields:	c, Ascending

User Permissions

admin   Delete, Read Permissions, Set Permissions, Change Owner

guest

Group Permissions

Admins	
Guests	Read Permissions
Users	Delete, Read Permissions, Set Permissions, Change Owner

APPENDIX E

STATE SHORT-LINE RAILROAD REPORTS & DATA FORMS

Available Upon Request

Estimated 1,000 Pages

Appendix F.

Industry Comments
on the
1993 Annual Data Profile
Railroad Survey

A number of comments about the survey and the data entry program were received from the industry . The following summarizes, in a verbatim fashion, these comments.

- Help on the data elements would be useful.

- A print facility in DENTRY would be very useful.

- The income statement is not the same as our accounting system. Haven't used this form since 1980.

- Add Train Crew Size data element.

- Listing the number of customers by commodity group overstates the number of our customers. Our railroad serve customers who handle more than one of the commodity groups listed.

- Change the data entry software to allow for more accurate figures in the miles of rail laid in replacement figures.

- Add a commodity code for Coke. It is one of the primary commodities carried by our railroads.

- Make the items from the income statement more flexible. Suggests adding Rents, Railway Tax Accruals, and having repair billings for Way and Structures and Equipment on separate lines.

- Items from the balance sheet section difficult to interpret. More clear if you ask for Non-Current Liabilities instead of Long Term Debt. May also want to ask for Other Non-Current Liabilities.

- Source and Application of Funds vague.

- Employee and Benefit data not flexible enough to handle our situation.

- Only sending inventory because only in business since June.

- How do we handle Miles of Road where we have trackage rights over state-owned road?

- How do you define contract and non-contract employees?

- What are the definitions for train miles, revenue ton-miles, and total man-hours worked.

- What is S&T?

The written comments from the survey include:

- Please define your terms specifically, such as: "Equipment", "Road", and "RR Expense Line Items. Need SPCC's printed on Page 5. Your information will be much better if you are specific instead of leaving interpretation to everyone who completes the survey.

- It would be beneficial to include a section on employee and executive compensation. This is an area that I hear a lot of shortlines inquire about and know several that pay fees for wage and benefit summaries from outside sources.

- Difficult to give you accurate figures with our companies "inter-meshing" as they do.

- This is a privately held corporation and financial in formation is confidential.

- Parts of format are awkward and difficult to analyze. See my notes and corrections. No provision for operated, not owned. (Part II.) Units for Rails laid in replacement?

- <Respondents railroad> is a new railroad - tried to make best guess on #'s.

- <Respondents railroad> acquired its railroad October 1, 1993 and as such has little data to report.

- This railroad has been under-utilized for a decade and any historical data would be meaningless.

- <Respondents railroad> is a public, non-profit rail authority. All services are contracted by the Authority and its administrative personnel are loaned to it by the City government. The Authority's operations are funded by special appropriations to it by the City and County governments.

- Several questions were not asked such as: Number of connecting carriers-8, Number of interchange points-12, computer capabilities (no. of workstations)-14, (network)-yes.

- Better explanation of information necessary.

- We would be interested in any information that could be provided back to the railroad to use for industry comparisons.

- Sorry, unable to provide much in the way of financial data.

- Comments for pages 7,8. I'm sorry I have no answers for these pages - they aren't available to

me. For the most part, any expenditures are not from capital plans and repairs etc. are made on an "As needed basis" until such time as income improves. We are subject to state assistance, but thus far, no programs or plans are in place or pending.

- Have spent money in state and local grant funds to rehabilitate the RR over the past ten years.
- Please share survey results with us.
- Page 1 - "Total Customers Served" is 148, not 180 as the program calculates. Some customers handle commodities in more than one commodity group. Page 6 - Idling policy is to shut locomotives down manually if temperature is above 40 degrees, and units are expected to sit idle for one hour or more.
- Average length of haul. (Carload) *Intermodal is 464 miles. 401(K) Plan. Employer Percentage Match to 401(k) Plan. * 50% up to max of 4%.
- First, total customers served is off due to the fact one customer may receive or ship different commodity groups. You might wast to include an other category under type of health plans. An example that <Respondents railroad> has is a short term disability policy, which is not included in the surveys dollar amounts. It would also be nice to have a print option in the DENTRY module so railroads could print a hard copy.

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16. Abstract

This project is a completed three-year study of American shortline railroad data systems. It consisted of three phases or stages: (1) a feasibility study, (2) initial database design, development and testing, and (3) 1993 data collection and analysis. Phase I consisted of six major tasks: (1) Establish a project advisory committee and refine the research approach; (2) Identify, describe and evaluate existing collection, distribution and use of Class II and III railroad data; (3) Ascertain what types of data the industry desires to voluntarily report and have maintained; (4) Stratify the industry according to economic and operational characteristics and other relevant criteria; (5) Develop a list of candidate data elements that could be voluntarily reported by the industry; and (6) Recommend a set of data elements to be voluntarily reported on an annual bases by the various types of railroads, a private organization to maintain the data, and a method for distributing the data. In Phase II a prototype software system was designed, developed, and tested. In Phase III, 1993 data were collected from the railroad industry, using the data entry software and a paper questionnaire.

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