1995

Annual Data Profile of the American Short Line & Regional Railroad Industry

Developed by the
American Short Line Railroad Association &
the Upper Great Plains Transportation Institute
North Dakota State University

[redacted]

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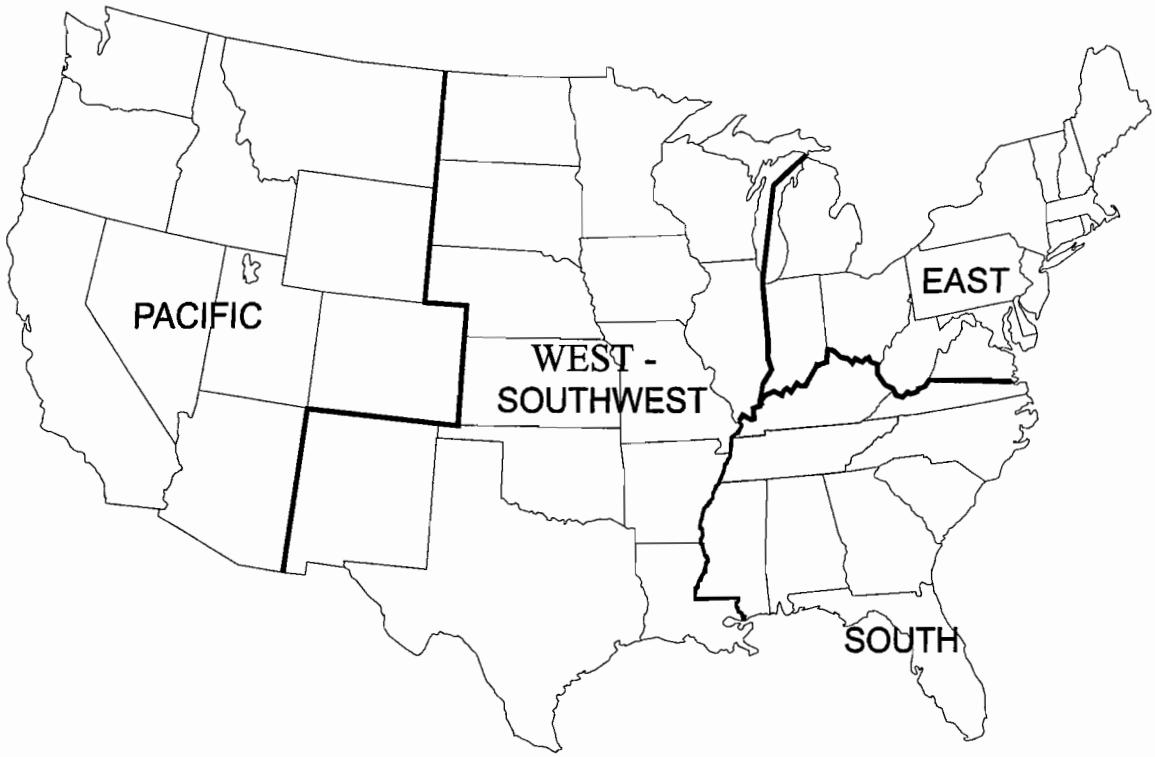
INTRODUCTION

The Annual Data Profile (ADP) of the American Short Line & Regional Railroad Industry has reported on the short line railroad industry since 1993. Created out of the need to recognize the important and growing contribution the short line industry makes to the nation's transportation system, the ADP summarizes the data contained in the American Short Line Data Base (ASLDB). The ASLDB was developed in 1994 to compile industry-wide information about short line and Regional railroads operating in the United States. Since its inception, the ASLDB has been maintained with the support of the American Short Line Railroad Association, the Federal Railroad Administration, the University Transportation Centers Program, and the Upper Great Plains Transportation Institute. The current ADP records the contributions the short line industry made in 1995.

Over 400 annual data profile surveys were sent out to collect the 1995 information from short line railroads. Two hundred and nine surveys were received and entered into the 1995 database, nearly a fifty percent response rate. The 1995 ADP contains summary statistics for railroad types, railroad regions, and short line database totals. The railroad type definitions used by the ADP conform with those of the Surface Transportation Board (STB) and the Association of American Railroads (AAR). The STB classifies railroads by their operating revenues. In 1994 (the latest year available), Class I railroads were defined as those with operating revenues exceeding $255.9 million. There were 11 U.S. railroads classified as 'Class I' in 1995. The STB-defined non-Class I railroads are defined by the AAR as Regional or Local Line-haul. A 'Regional' railroad is a line-haul railroad with $40 million to $255.9 million in operating revenues, and/or operating over 350 miles of road. In 1995 there were 30 Regional railroads. 'Local' railroads are line-haul railroads with less than $40 million in annual operating revenues and less than 350 miles of road, as well as Switching and Terminal railroads. There were 500

local railroads in 1995. Railroad type specification in this report follows the definitions of the AAR to separate Regional and Local railroads. Switching and Terminal railroads are designated by the individual railroads. The short line railroad regions used are those defined by the American Short Line Railroad Association. The following map displays these regions.



ASLRA Regions Of Railroad Operation

The four regions highlighted on the map are the East, Pacific, South, and West-Southwest. A railroad that operates in more than one region is considered to belong to the region where the majority of it's operations take place. The West and Southwest ASLRA regions are combined for any 'by region' analysis done for the ADP.

Two new sections were added to the ADP for 1995: 1) Estimated Industry Totals and 2) 1993-1995 Industry Profile. The Estimated Industry Totals section utilized several statistical

modeling and estimation techniques to detail the characteristics of the entire short line railroad industry. The statistical methods were used to approximate several totals for the entire population of 530 U.S. short line railroads. These estimates present a more complete analysis of the impacts, trends, and characteristics of the entire short line industry.

The 1993-1995 Industry Profile is the second new section in the Annual Data Profile. This section presents and highlights selected statistics from the life of the ASLRA database, 1993-1995.

ESTIMATED INDUSTRY TOTALS

The statistics presented in this report are derived from the data reported by the small railroads responding to the Annual Data Profile survey. The survey is in its third year of data collection and from year-to-year, the number of respondents and makeup of the database can change. Statistical modeling may be utilized to extrapolate the reported values in the survey to generate estimated values for the entire small railroad industry. These estimates, while not exact, may be used to provide a general benchmark of the entire industry.

The statistical models to estimate industry totals were first developed from the 1995 survey data and a model was run for each variable of interest from the data profile. The independent variables for each model consisted of statistics from the AAR electronic profiles. The 1995 AAR database had values for nearly all 530 small railroads for the following elements: carloads handled, average length of haul, number of employees, miles owned and operated, and type of railroad. First, the model is calculated using the 1995 ASLRA Data Profile. Once the model is calculated, the AAR data is entered into the model to get an estimate for each of the 530 railroads. Then the sum of these estimates gives an estimate for the industry total. [1]

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[1] The following model was run for each industry estimate:

Estimated Variable = β_0 + (Miles Owned & Operated) * β_1 + (Carloads Handled) * β_2
+ (Average Length of Haul) * β_3 + (Number of Employees) * β_4 + (Type of Railroad) * β_5
+ (Type of Railroad * Miles) * β_6 + (Type of Railroad * Cars) * β_7 + (Type of Railroad * AvgLeng) * β_8
+ (Type of Railroad * Employees) * β_9

Estimates for each of the β parameters are derived. If the model did not fit the data well, the estimation procedure for that particular variable is dropped until further analysis can be done. If a good fit was found for the estimated variable, the process continued. The next step is to calculate an estimate for each of the 530 short line railroads by using the 1995 AAR electronic profiles data. These estimates are added up to give an industry total estimate. The same procedure is followed for each of the industry estimates computed.
Note: (If the AAR profiles is missing data that is needed in the model for a particular railroad, it is replaced by the average of the other railroads of the same railroad type.)

The following table shows a comparison of estimates with totals derived from the AAR electronic profiles.

Table 1. A Comparison of the ASLRA Database Estimates and the AAR-Derived Estimates.

Variable	1995 Short Line Database Estimate	1995 AAR Total – Adjusted for Missing Values	% Difference between Estimate and AAR
Carloads	10,768,701	11,073,482	-2.75%
Employees	25,537	24,871	2.68%
Freight Revenue	$2,794,592,496	$2,986,438,000	-6.42%

These estimates are all within 7 percent of the AAR numbers.

An additional point of reference used to benchmark the quality of the estimates is the American Shortline Railway Guide, 5th Edition. The total number of locomotive units was tallied from this reference. The number of locomotive units from approximately 528 railroads was 3,822. The estimated total locomotive units owned from the ASLRA Data Profile and AAR profiles is 3,756 for a difference of approximately 2 percent. The estimate derived for the total locomotive units owned and leased by small railroads is 4,151. The following table lists the statistical estimates for industry totals that were computed from the 1995 ASLRA Data Profile.

Table 2. Selected Estimated Industry Totals.

Data Item	Estimated 1995 Small Railroad Industry Total
Total Number of Customers Served	13,000
Bridges	25,000
Ties Laid in Replacement	3,000,000
Number of Highway Grade Crossings	65,000
Freight Cars Owned	72,000
Freight Cars Owned & Leased	159,000
Locomotives Owned	3,800
Locomotives Owned & Leased	4,200
Revenue Ton Miles	90,766,000,000
Gallons of Fuel Consumed	215,000,000
Total Freight Revenue	$2,795,000,000
Total Gross Revenue	$3,165,000,000
Way & Structures Expense	$485,000,000
Equipment Expense	$401,000,000
Transportation Expense	$861,000,000
General & Administrative Expense	$441,000,000
Other Expense	$455,000,000
Total Railway Operating Expense	$2,616,000,000
Operating Income	$620,000,000
Capital Road Expenditures	$150,000,000
Current Liabilities	$1,013,000,000
Total Assets	$6,166,000,000
Long-Term Debt	$1,913,000,000
Equipment Investment	$473,000,000
Road Investment	$1,245,000,000
Other Investment	$307,000,000
Supervisory Compensation Paid	$202,000,000
Non-supervisory Compensation Paid	$697,000,000
Total Annual Compensation Paid	$899,000,000
Total Man-hours Worked	48,000,000

1993-1995 INDUSTRY PROFILE

This section presents selected results from the first three years of the Annual Data Profile survey, 1993 through 1995. Figure 1 and Figure 2 describe the number of small railroads that participated in the survey as well as the participants' railroad type.

Figure 1: Number of Participating Small Railroads 1993-95

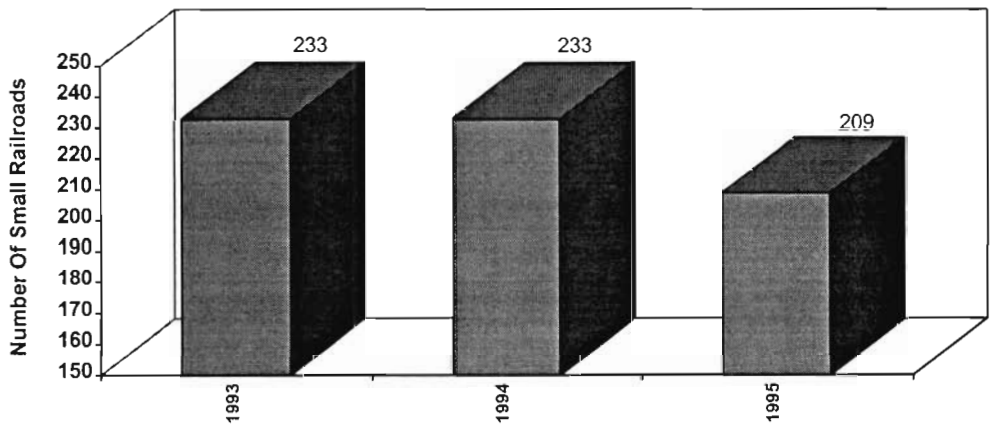


Figure 2: Number of Participating Small Railroads by Railroad Type,1993-95

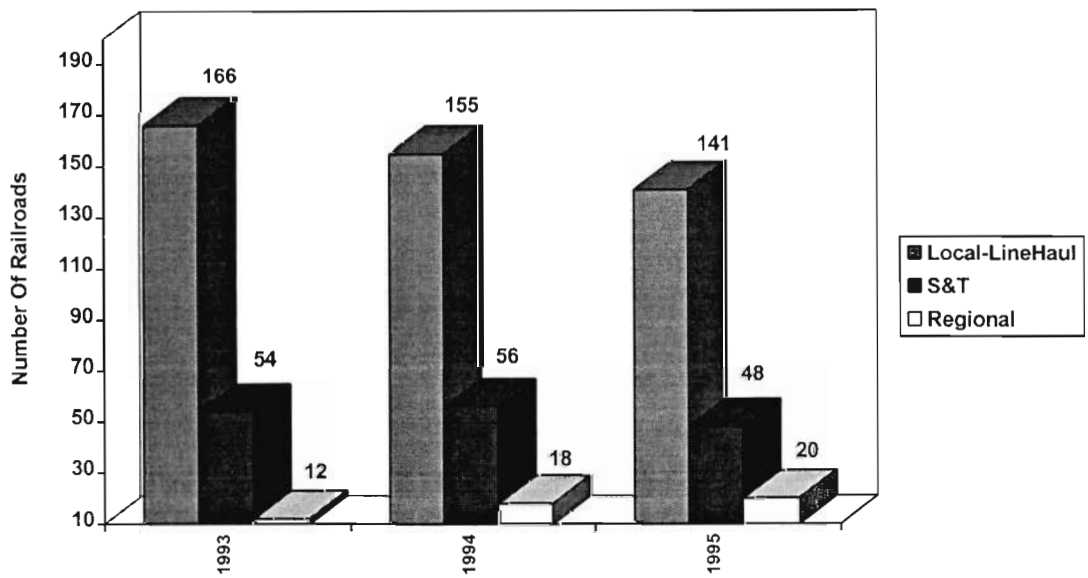


Figure 3: Average and Median Number of Customers per Small Railroad, 1993-95

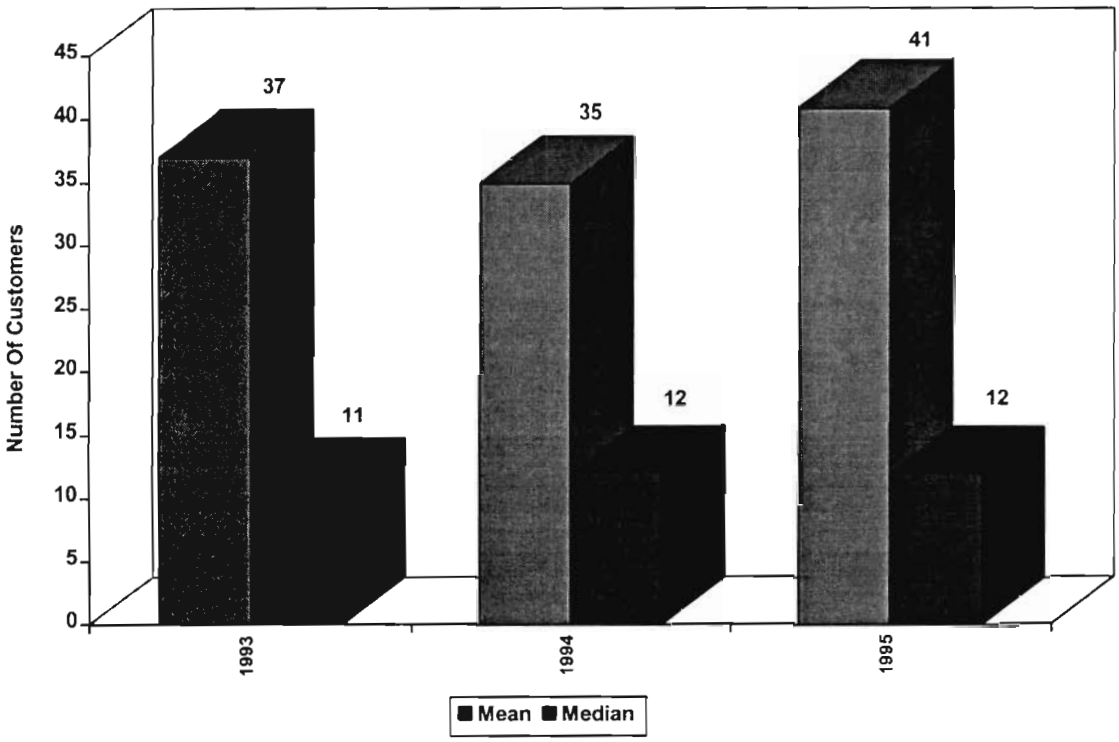


Figure 3 displays the average and median number of customers for small railroads participating in the 1993-1995 Annual Data Profile. As shown in the figure, the average number of customers per small railroad was greatest in 1995 at 41.

Table 3 presents the small railroad movement mix for the three years of the ASLRA database. The largest percentage of movement type for all three years is the Carload Originated and Terminated Online category.

Table 3. Small Railroad Movement Mix, 1993-1995

Movement Type	1993	1994	1995
Bridge Traffic	15%	16%	15%
Interline Carloads Terminated Online	28%	25%	24%
Interline Carloads Originated Online	27%	27%	30%
Carloads Originated & Terminated Online	30%	32%	31%

The next two tables display route mileage characteristics. Table 4 outlines the percent of route miles operated that is owned by small railroads on a regional basis. As shown in Table 5, the percentage of 90-pound rail on the owned route mileage is greatest in the East region for all three years of the survey.

Table 4. Percent of Operated Route Mileage Owned by Small Railroads by Region, 1993-1995

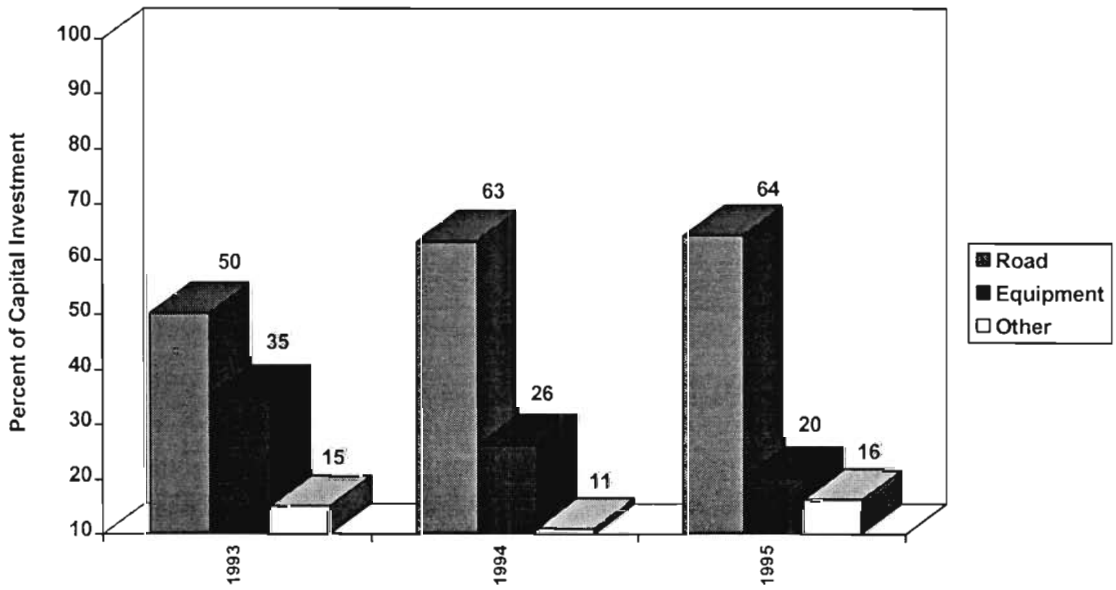
Region	1993	1994	1995
East	81%	71%	78%
South	88%	96%	94%
West-Southwest	87%	84%	84%
Pacific	60%	63%	70%

Table 5. Percent of 90-Pound Rail of Owned Route Mileage by Small Railroads by Region, 1993-1995

Region	1993	1994	1995
East	92%	77%	93%
South	77%	71%	71%
West-Southwest	68%	79%	78%
Pacific	60%	70%	66%

Figure 4 shows that the majority of projected capital investment for the next five years will be in the road category followed by the equipment category.

Figure 4 Projected Capital Investment Category for Next 5-Year Period, 1993-95



Tables 6 and 7 report the number of grade crossings by region and the percentage of grade crossing with automatic warning devices. The East region has the highest percentage of automatic warning devices while the West-Southwest has the largest number of grade crossings.

Table 6. Number of Reported Grade Crossings by Region, 1993-1995

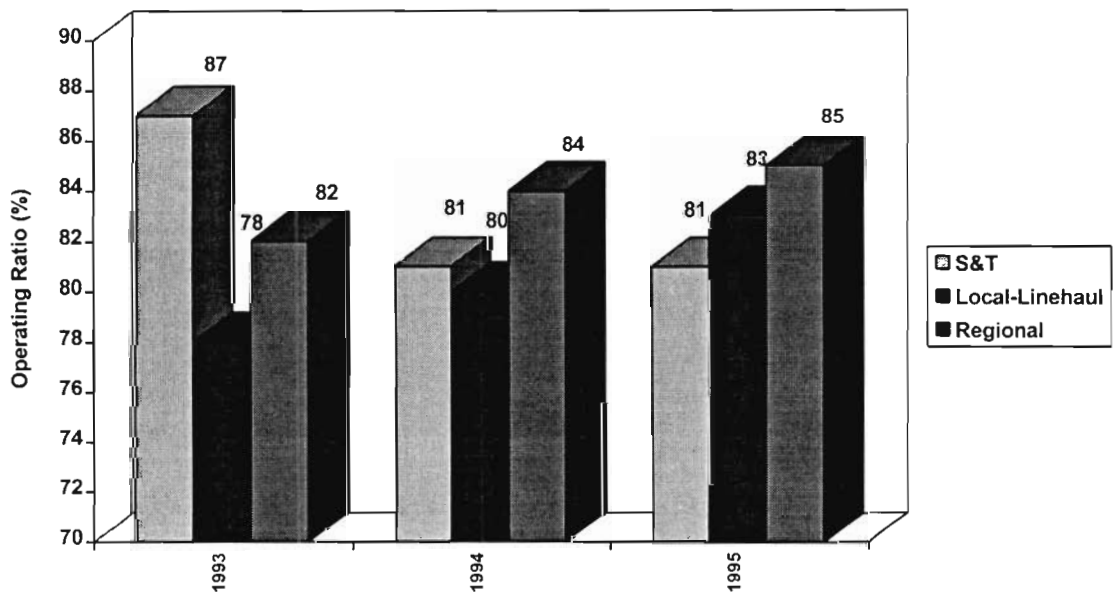
Region	1993	1994	1995
East	4,925	7,156	5,166
South	4,521	4,307	4,471
West-Southwest	16,406	19,993	18,547
Pacific	3,693	4,726	4,182

Table 7. Percent of Grade Crossings with Automatic Warning Devices by Region, 1993-1995

Railroad Type	1993	1994	1995
East	27%	25%	26%
South	17%	18%	20%
West-Southwest	19%	18%	18%
Pacific	26%	17%	18%

The operating ratio for small railroads by railroad type is shown in Figure 5. The figure displays the operating ratio for each railroad type for each year of the survey.

Figure 5: Operating Ratio by Railroad Type, 1993-95



Tables 8 and 9 show railroad equipment age distribution. As shown in the tables, less than three percent of the locomotives and less than eight percent of the freight cars are reported as being less than 10 years old for each of the years, 1993-1995.

Table 8. Small Railroad Locomotive Age Distribution, 1993-1995

Locomotive Age	1993	1994	1995
Less than 10 years old	2%	2%	1%
10-20 years old	13%	12%	12%
More than 20 years old	85%	86%	87%

Table 9. Small Railroad Freight Car Age Distribution, 1993-1995

Freight Car Age	1993	1994	1995
Less than 10 years old	6%	6%	7%
10-20 years old	55%	50%	38%
More than 20 years old	39%	44%	55%

Table 10 displays small railroad expenses by expense category. As shown in the table, Transportation expense comprises the largest expense for each of the reported three years.

Table 10. Small Railroad Expenses, 1993-1995

Expense Category	1993	1994	1995
Equipment	15%	15%	22%
General Administration	21%	20%	17%
Transportation	39%	36%	33%
Way & Structures	16%	19%	18%
Other	9%	9%	10%

Figures 6 through 8 display the average and median number of employees for Local Line-haul, Regional, and Switching & Terminal railroads.

Figure 6: Average and Median Number of Employees Local Line-haul Railroads, 1993-95

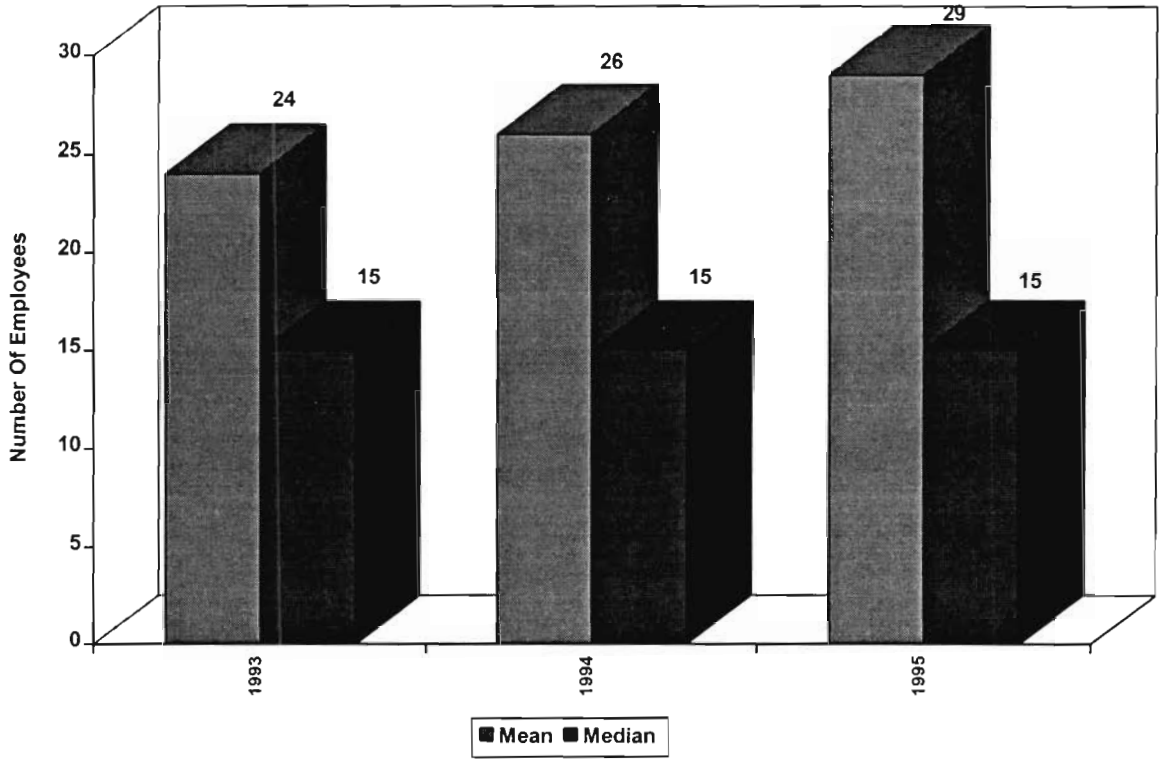


Figure 7: Average and Median Number of Employees Regional Railroads, 1993-95

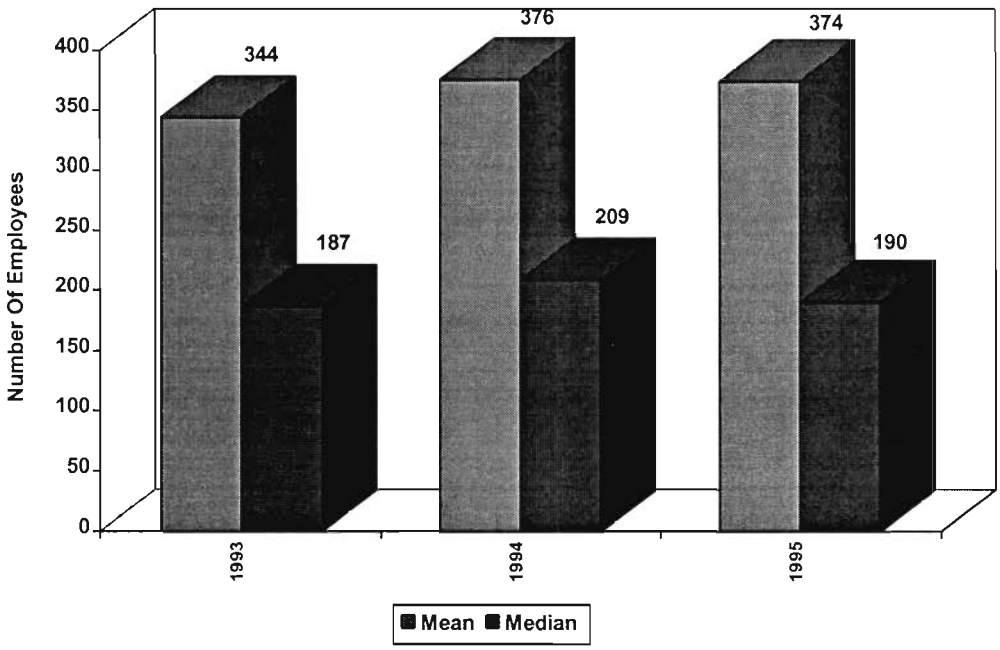


Figure 8: Average and Median Number of Employees Switching & Terminal Railroads, 1993-95

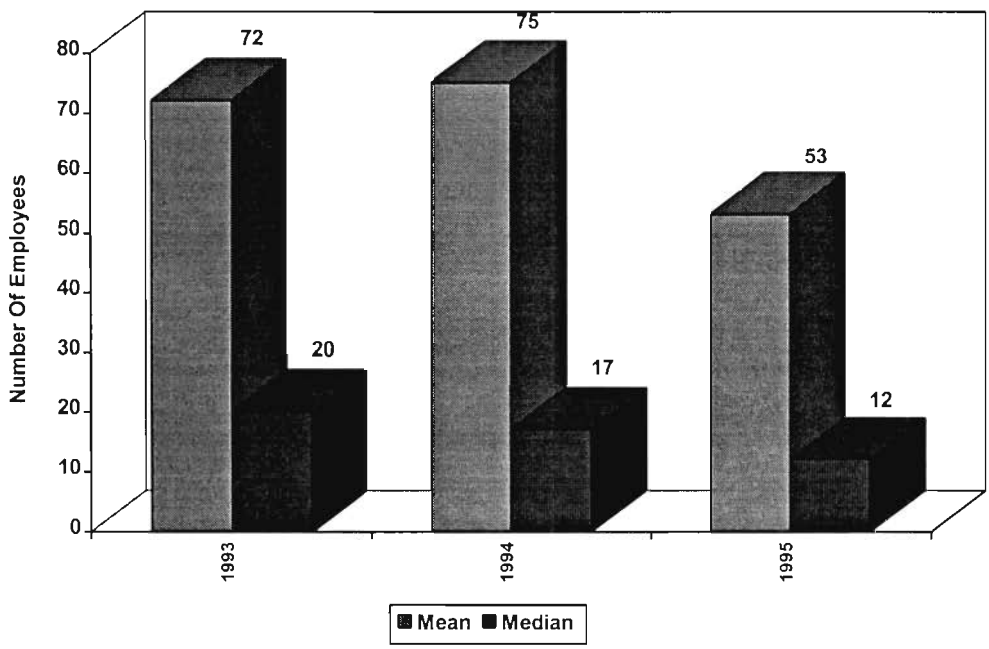


Figure 9 shows the average and median gross railway operating expense per employee for small railroads, 1993-1995. Figures 10 through 12 display the same expense statistic for the Regional, Local Line-haul, and Switching & Terminal railroads responding to the surveys for 1993-1995.

Figure 9: Average and Median Gross Railway Operating Expense per Employee, Small Railroads, 1993-95

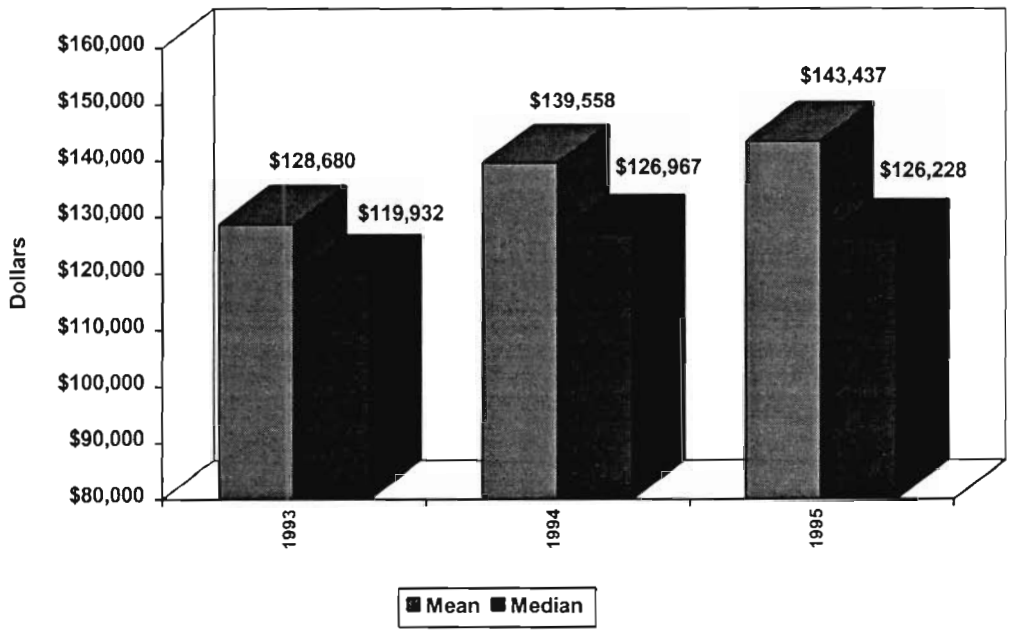


Figure 10: Average and Median Gross Railway Operating Expense per Employee, Local Line-haul Railroads, 1993-95

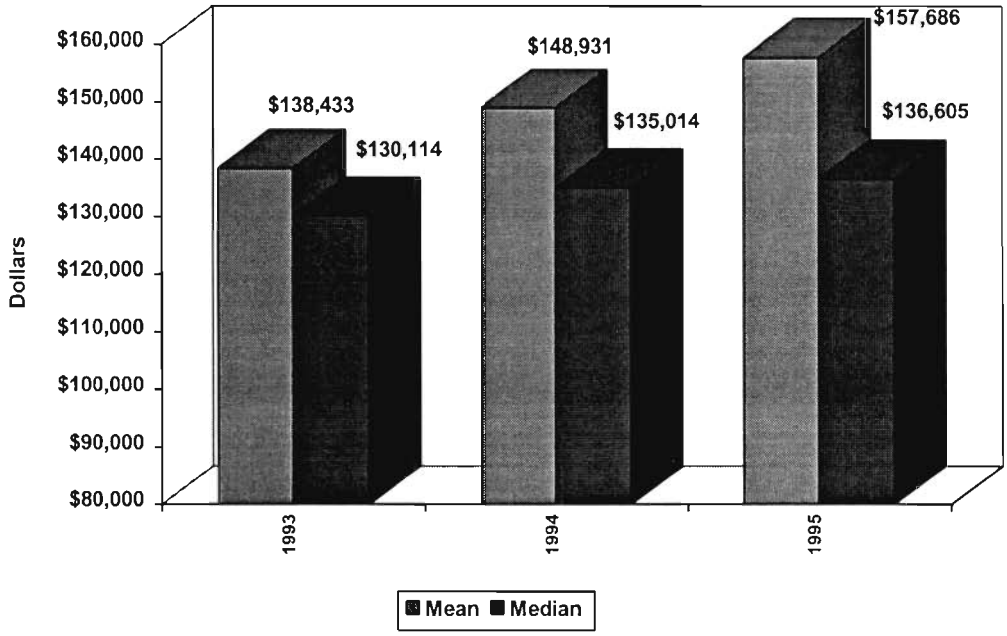


Figure 11: Average and Median Gross Railway Operating Expense per Employee, Regional Railroads, 1993-95

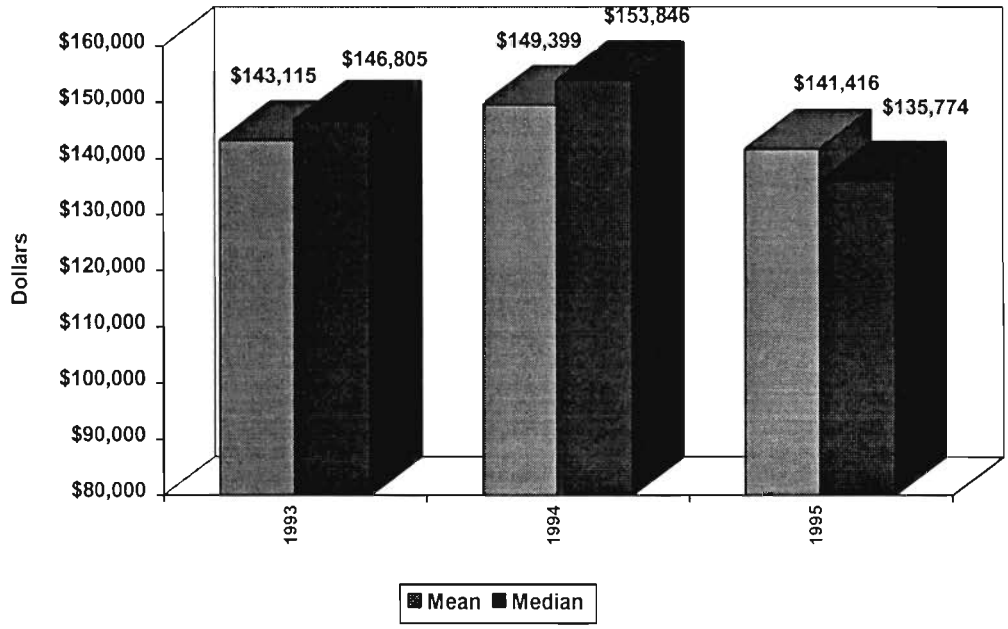
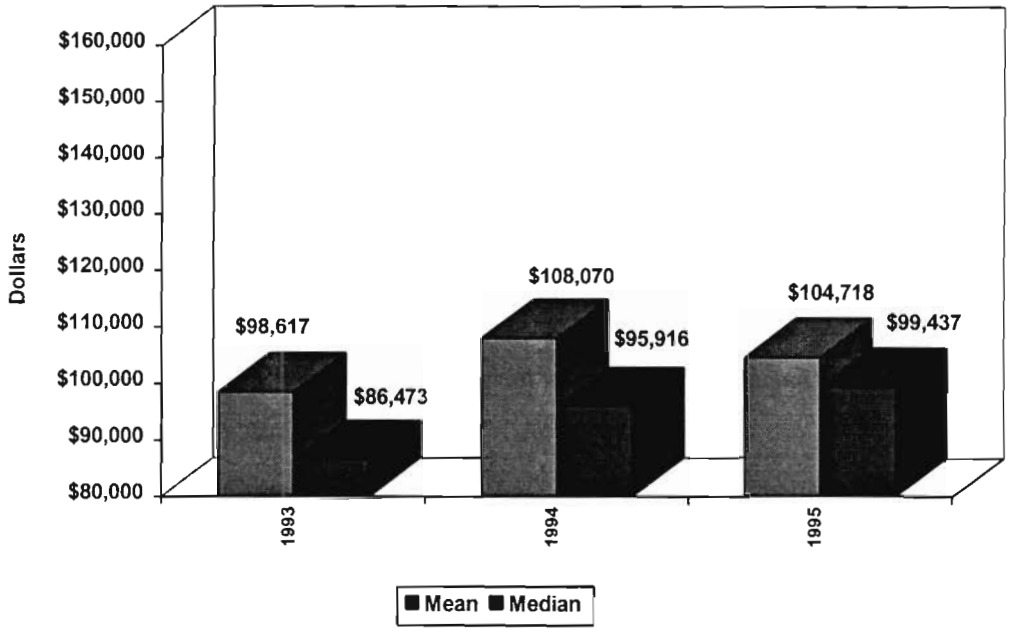
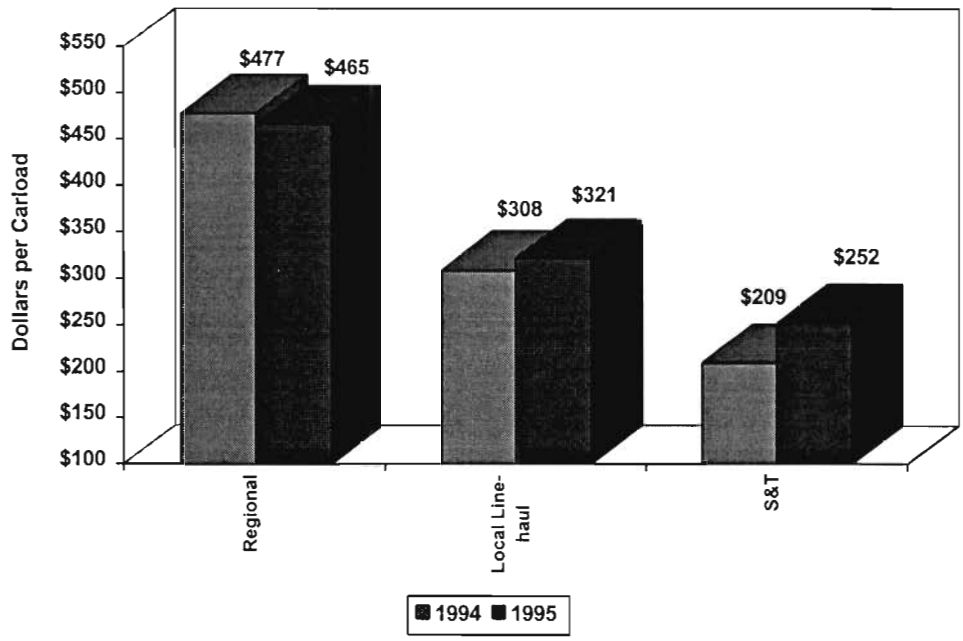


Figure 12: Average and Median Gross Railway Operating Expense per Employee, S&T Railroads, 1993-95



Average Revenue per Carload by railroad type for the years 1994 and 1995 is displayed in Figure 13. Regional railroads had the highest average revenue per carload for both years. The data for 1993 is unavailable.

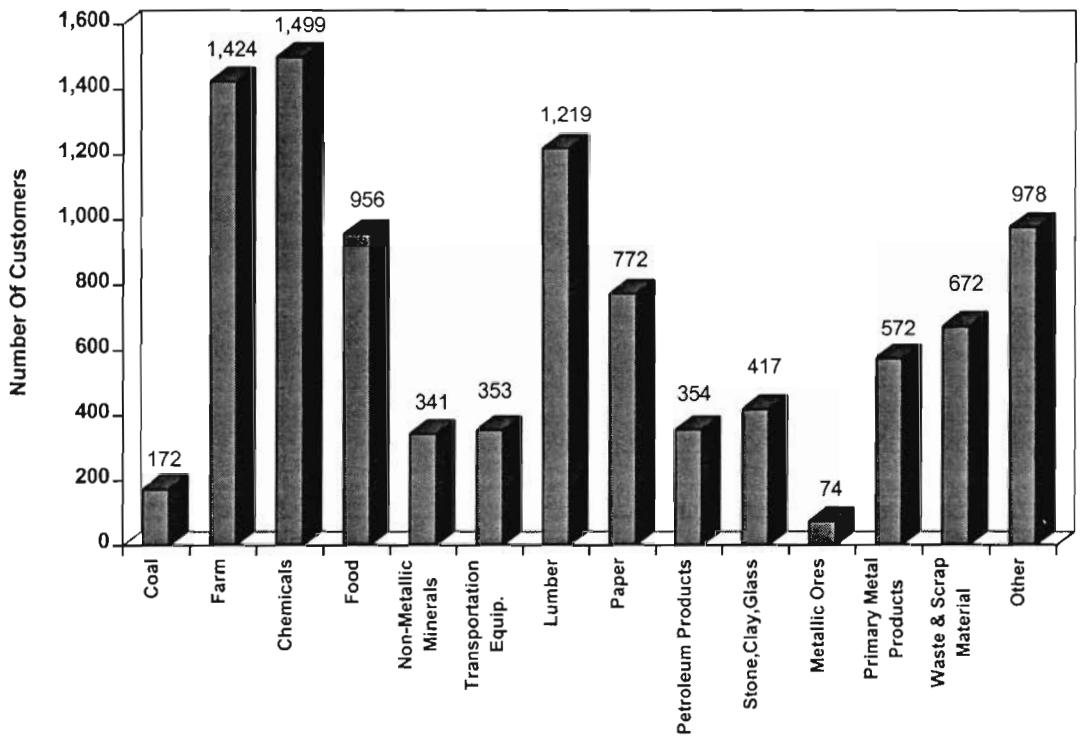
Figure 13: Average Revenue Per Carload by Railroad Type, 1994-95



CUSTOMER PROFILE

Figure 14 shows the number of customers served by commodity for the short line railroads responding to the 1995 survey. The total number of customers served by the small railroads participating in the survey was 7,958. Five commodities account for nearly 6,000 of the customers served by the short line carriers. These commodities are chemicals and allied products, farm products, lumber, food and kindred products and pulp paper and allied products.

Figure 14: Small Railroad Customers Served By Commodity



The next three figures separate the customers served by railroad type. Figure 15 shows the number of customers served by commodity type for the responding Regional railroads for 1995. The Regional railroads' largest number of customers served appear in the farm, chemicals, lumber, food, and paper commodity groups. Figure 16 displays the number of shippers served by commodity for Local Line-haul railroads responding to the 1995 survey. Local line-haul railroads' largest number of customers served fall in the chemicals, farm, food, lumber, and waste & scrap material commodity groups. Figure 17 displays the number of shippers served by commodity for Switching and Terminal railroads responding to the 1995 survey. S & T railroads' largest number of customers served fall in the chemicals, primary metal products, lumber, and waste and scrap material commodity groups.

Figure 15: Regional Railroad Customers Served By Commodity

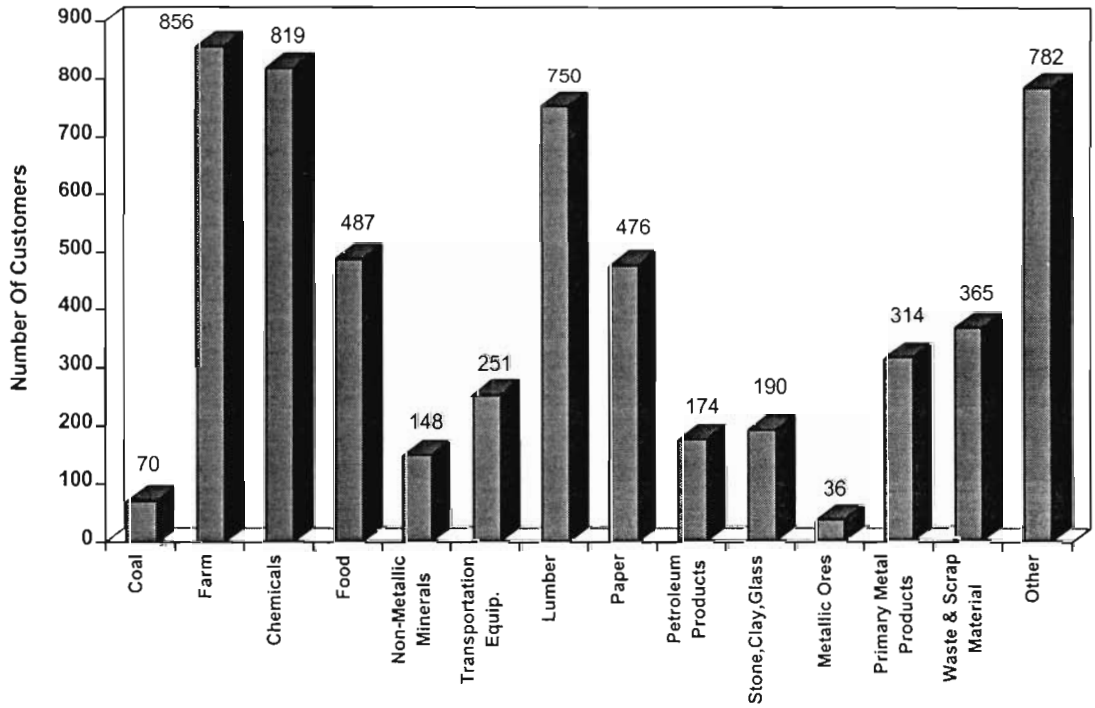


Figure 16: Local Line-haul Railroad Customers Served By Commodity

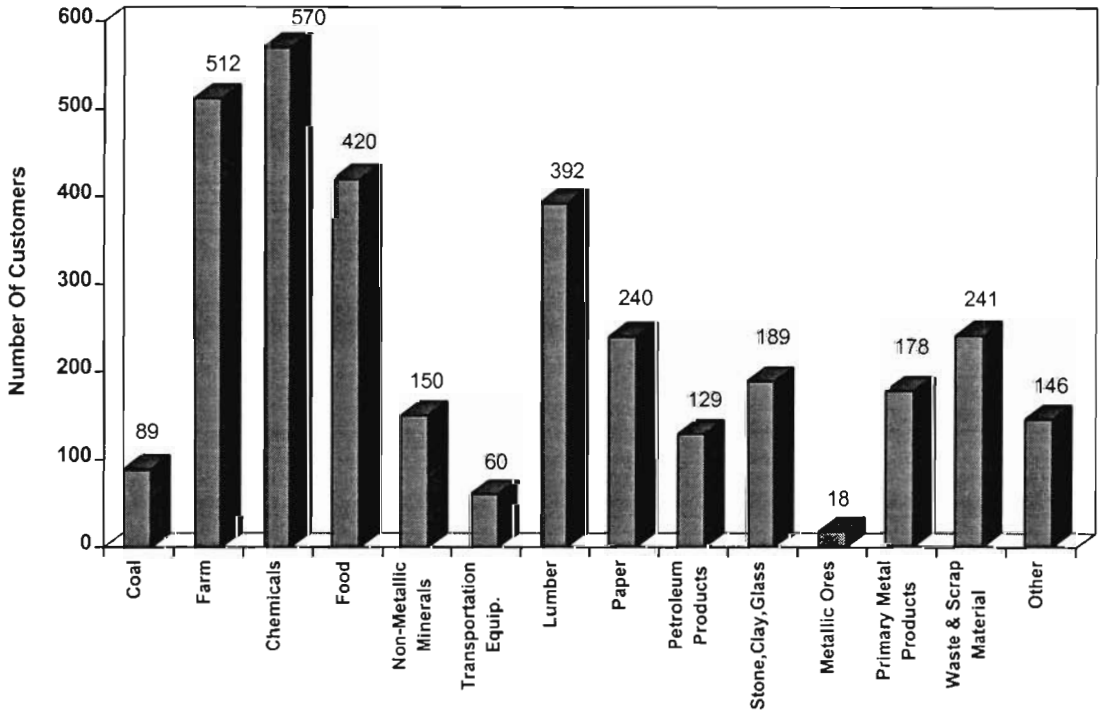
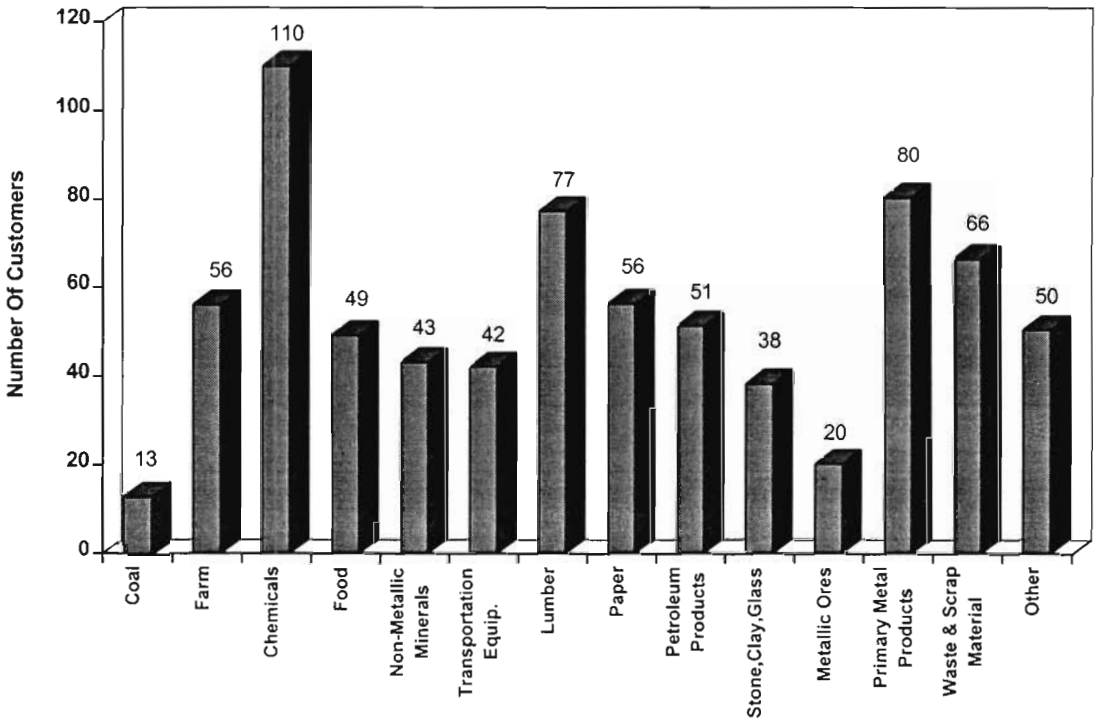


Figure 17: S & T Railroad Customers Served By Commodity



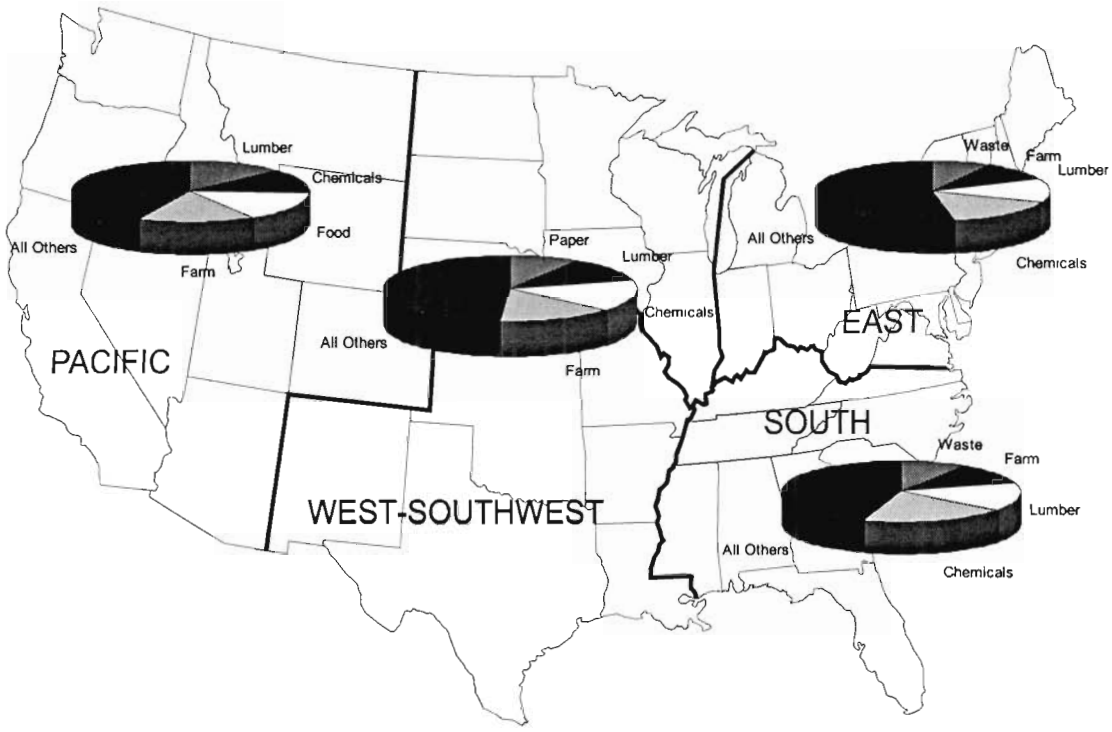


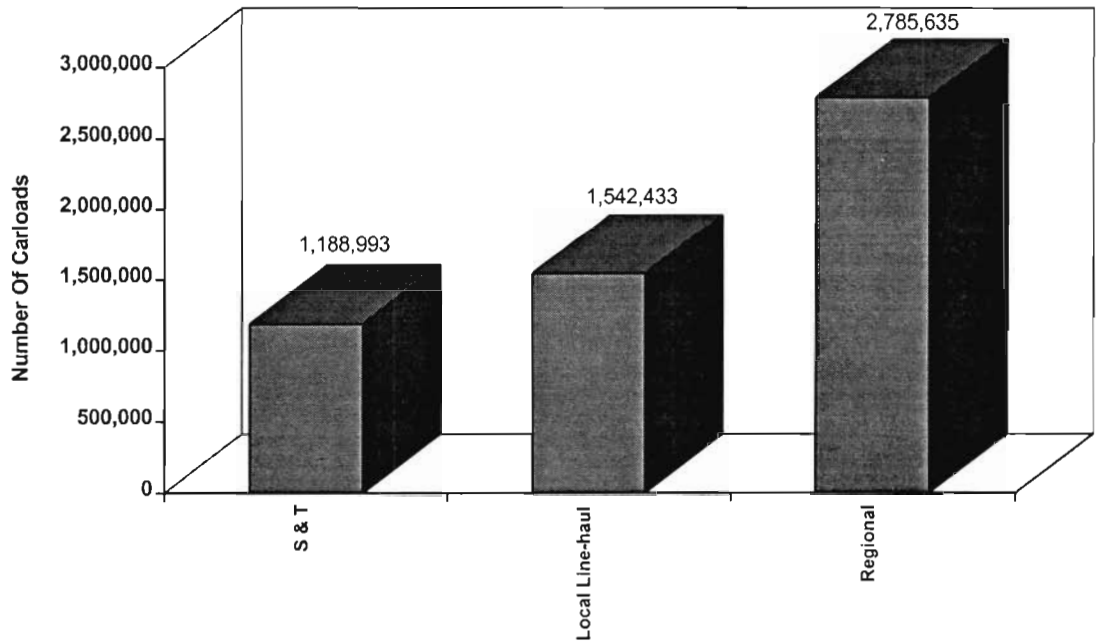
Figure 18: Small Railroad Customer Mix
By Region

Figure 18 displays the customer mix by region for small railroads. Lumber, chemicals, and farm products are among the top four commodities, by number of customers served, for each region. Food, paper products, and waste and scrap material are the other major commodities served, by number of customers. The four largest commodity groups account for over 50 percent of the small railroad's customers in three regions - the South, West-Southwest, and Pacific.

TRAFFIC PROFILE

A total of 5,517,061 carloads were handled in 1995 by short lines responding to the survey. Switching and terminal railroads accounted for 1,188,993 carloads handled. Local line-haul railroads handled 1,542,433 carloads. The responding Regional railroads handled 2,785,635 carloads.

Figure 19: Total Carloads By Railroad Type



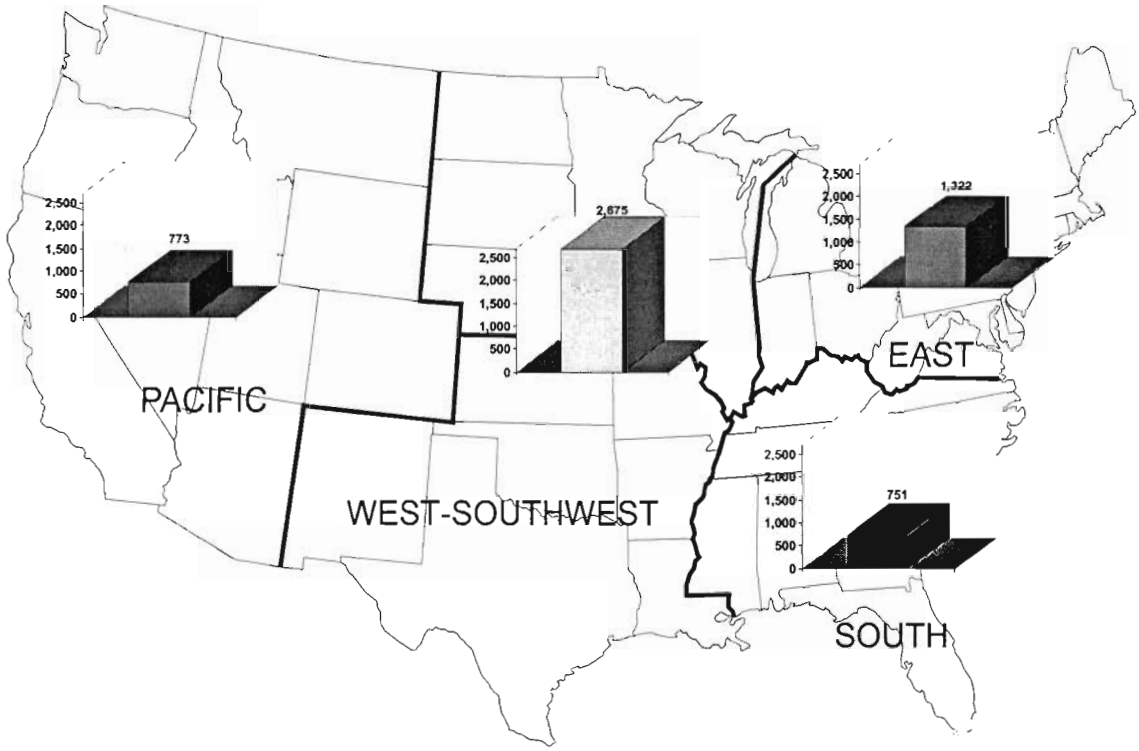


Figure 20: 1995 Total Carloads Handled(in thousands)
For Responding Small Railroads

Figure 20 shows 1995 traffic volumes by region for responding railroads. The largest volume of traffic was in the West-Southwest region with over 2.6 million carloads handled. The East region handled over one million carloads, while the Pacific and South regions handled approximately 750,000 carloads each.

The small railroad traffic mix is shown in Figure 21. The five top commodities, by carloads handled, are shown as a percentage of total carloads handled. The top five are metallic ores, coal, primary metal products, farm products, and petroleum products with these commodities accounting for 54 percent of the carloads handled. The remaining commodities are combined into the 'all others' category.

The traffic mix for the Class I railroads is shown in Figure 22. Coal and farm products are both major commodities handled by Class I and small railroads.

Figure 21: Small Railroad Traffic Mix

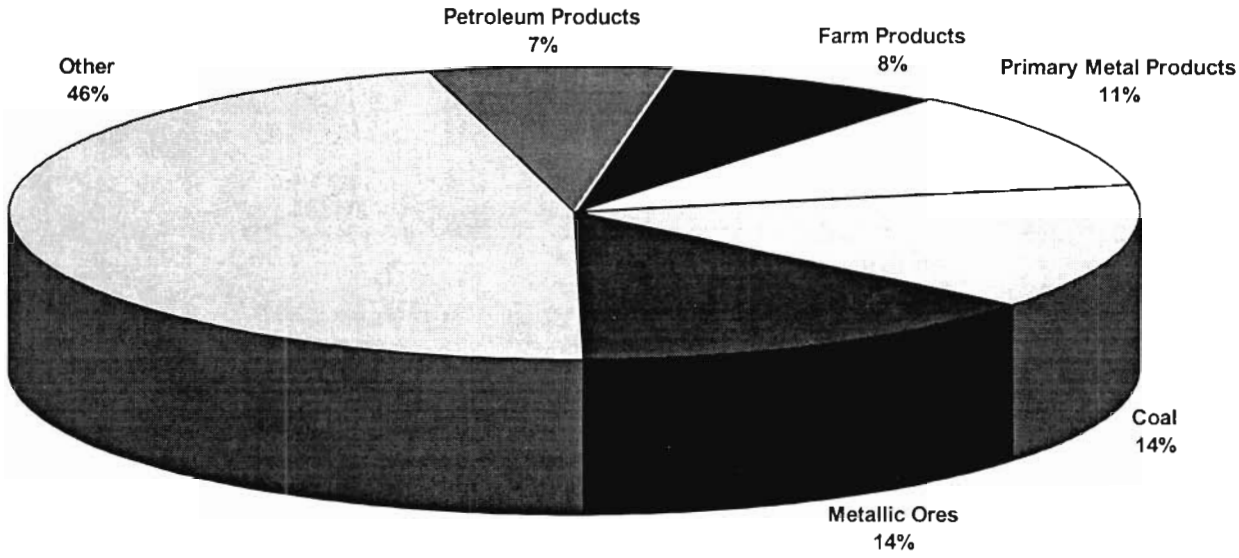


Figure 22: Class I Railroad Traffic Mix

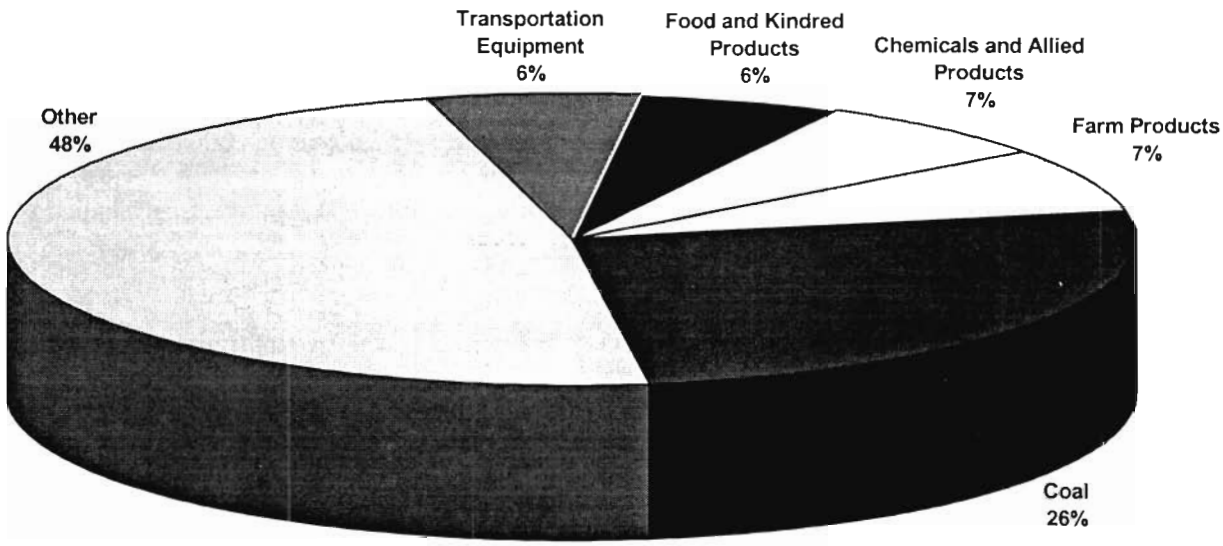
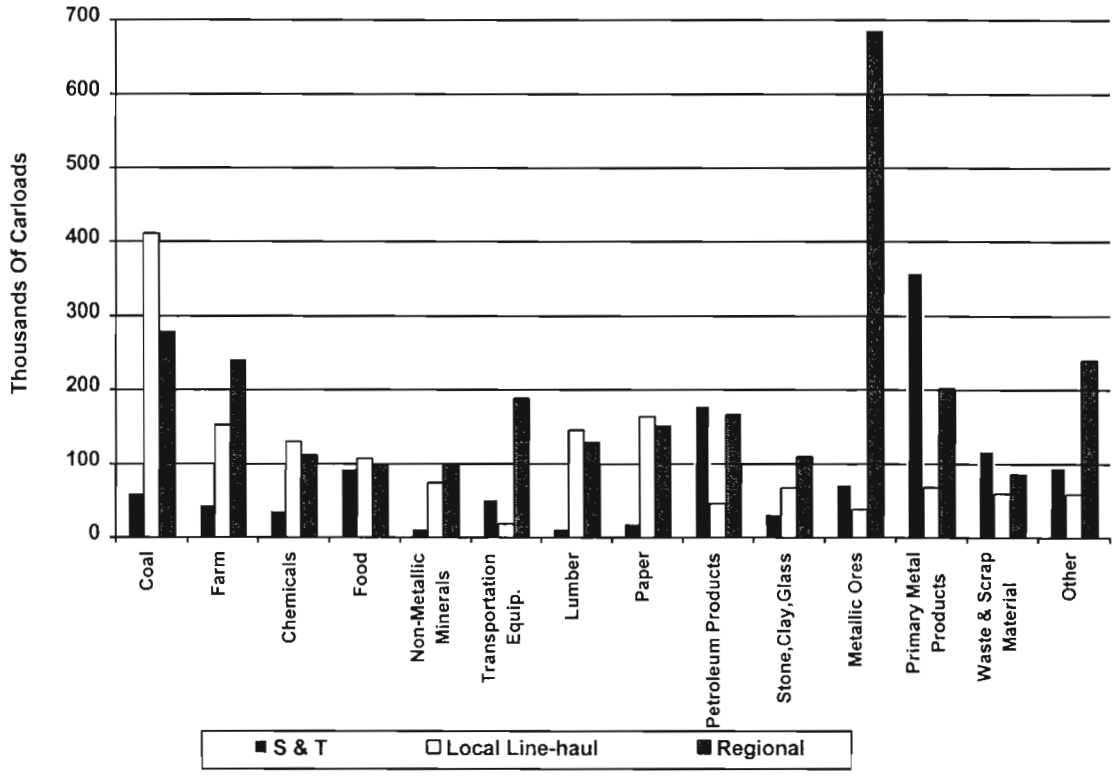
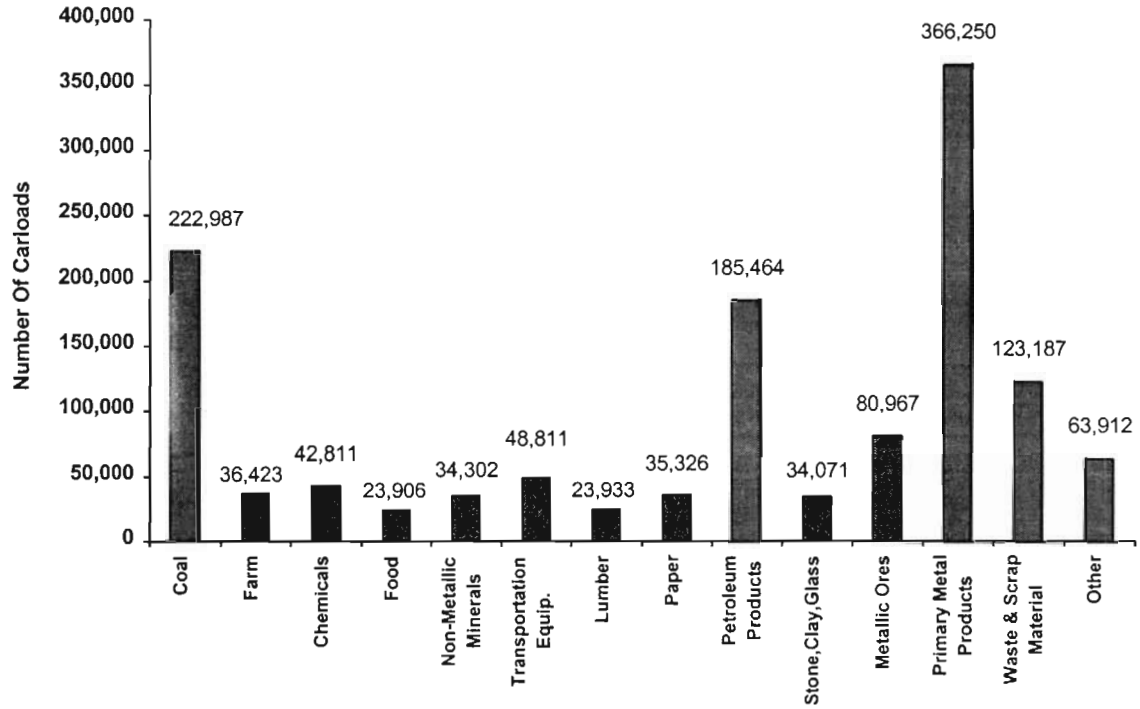


Figure 23: Carloads By Railroad Type



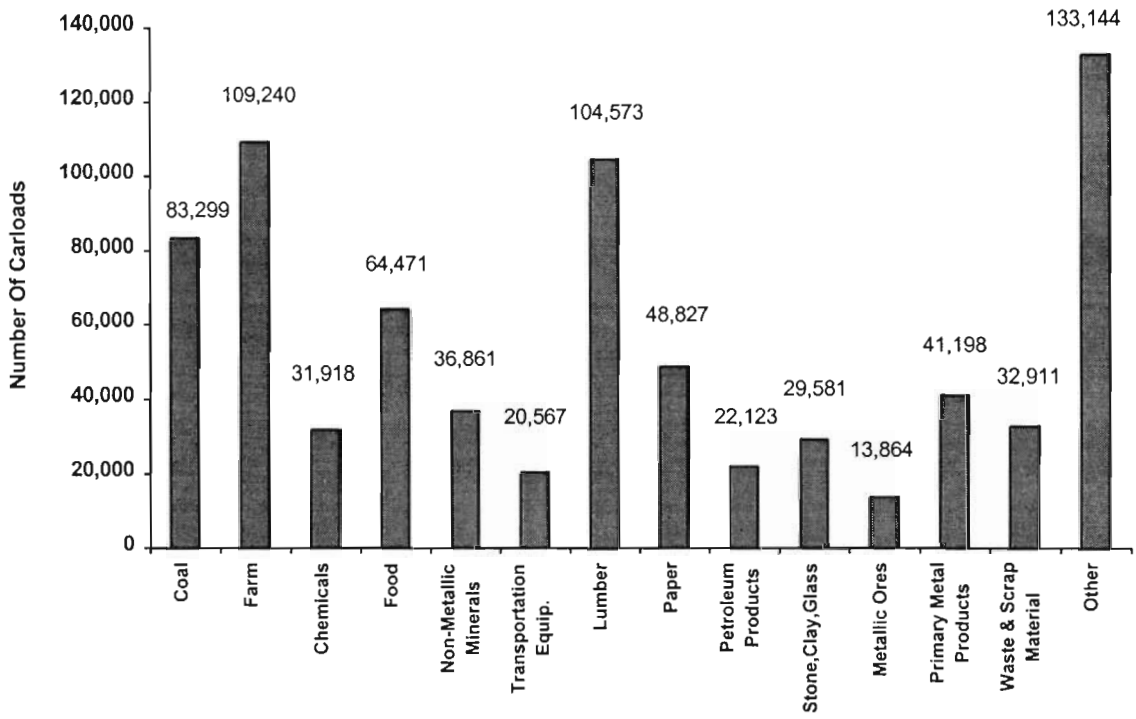
The traffic base for S & T, Local Line-haul, and Regional railroads are shown in Figure 23. Switching & Terminal railroad's main traffic commodities are primary metal products, petroleum products, waste and scrap material, and food. Coal, paper, lumber, and farm products make up the primary commodities handled by Local Line-haul railroads. Metallic ores, coal, farm products, and primary metal products make up the largest portion of carloads handled for the Regional railroads.

Figure 24: Eastern Region Carload Distribution



The Eastern region carload distribution is shown in Figure 24. Primary metal products, coal, petroleum products, and waste and scrap material commodities account for the largest traffic volume among the major commodities. By comparison, as shown in Figure 18, the largest number of customers served by commodity in the Eastern region are the chemicals and lumber commodities. Lumber and chemical commodities however, represent a small percentage of the Eastern region traffic base.

Figure 25: Pacific Region Carload Distribution



The Pacific region carloads handled distribution is displayed in Figure 25. Farm products and lumber were the two highest traffic volume commodities in the Pacific region in 1995. There were also a large number of carloads classified in the 'other' commodity group in the Pacific region.

Figure 26 displays the carload traffic volume by commodity type for the Southern region. Coal has, by far, the largest traffic volume of any commodity handled in 1995 in the Southern region despite its small customer base (Figure 18). Other major commodities generating carload traffic were paper, lumber, and chemicals.

The West-Southwest region's traffic base is dominated by the metallic ores category. Small railroads also handled over 180,000 carloads each for the farm, food, and transportation equipment commodities.

Figure 26: Southern Region Carload Distribution

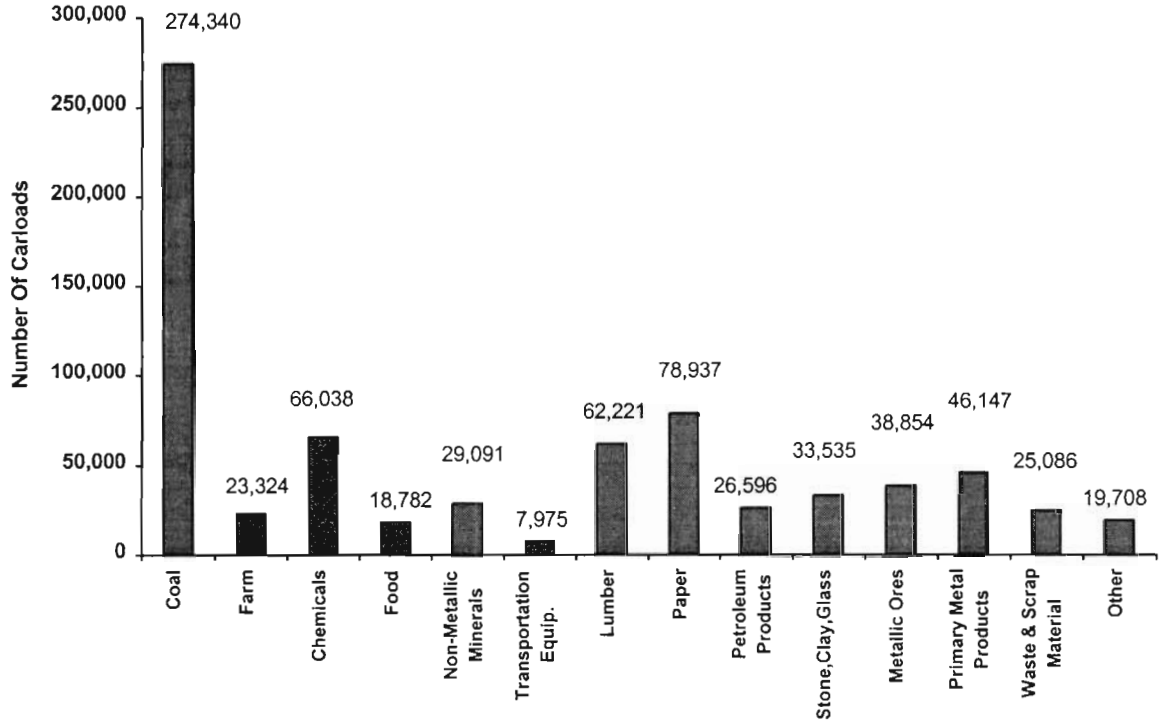


Figure 27: West-Southwest Region Carload Distribution

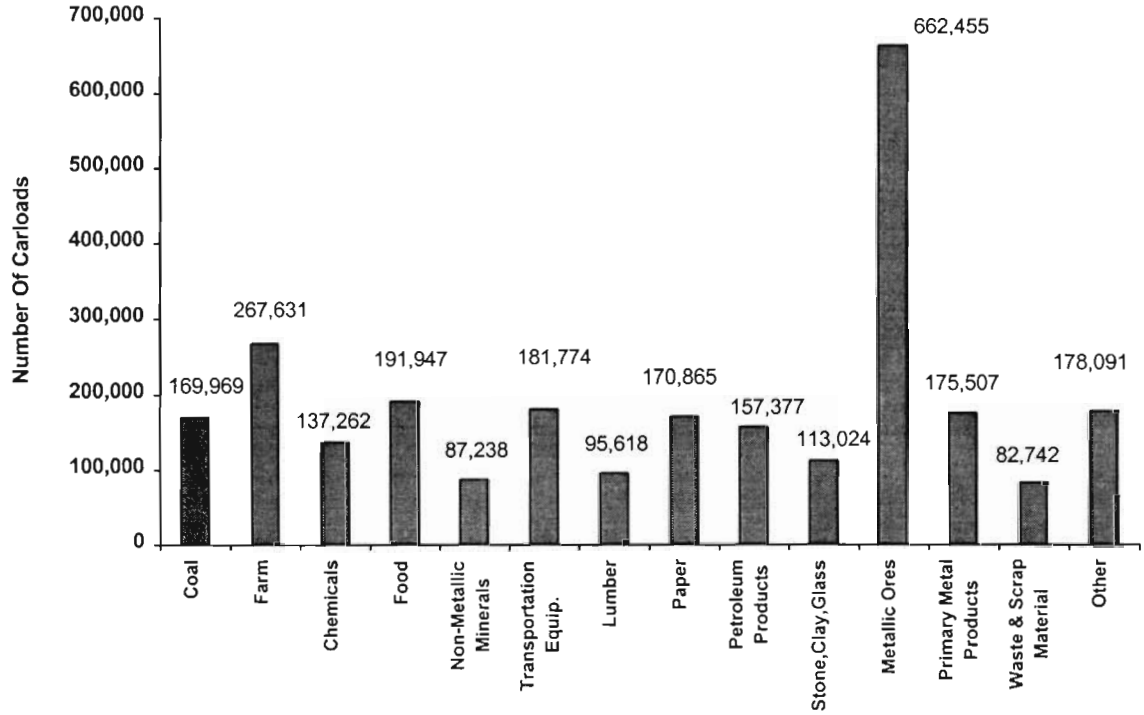


Figure 28: Small Railroad Movement Mix

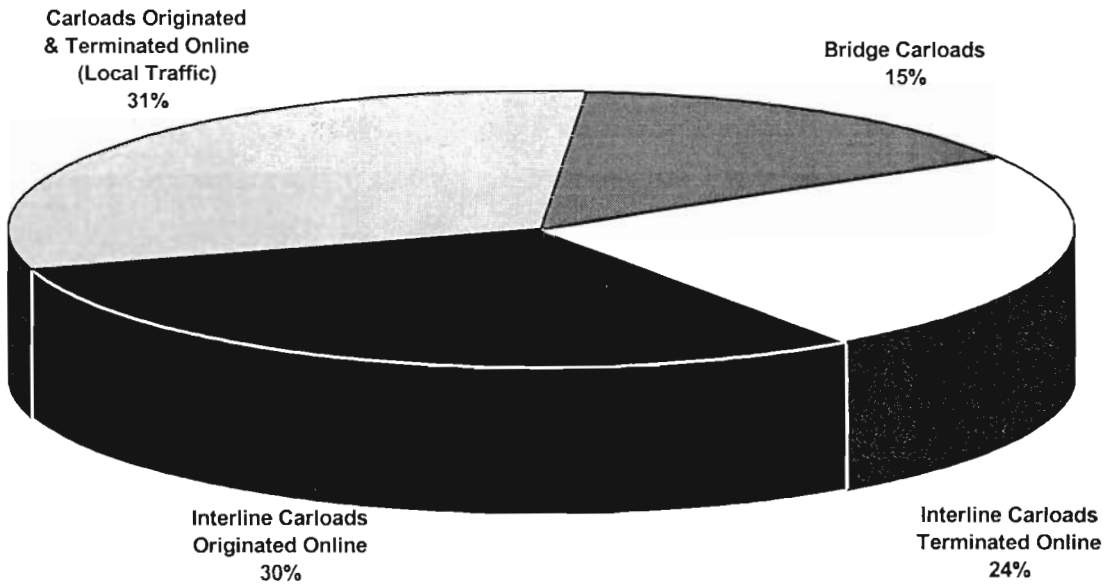
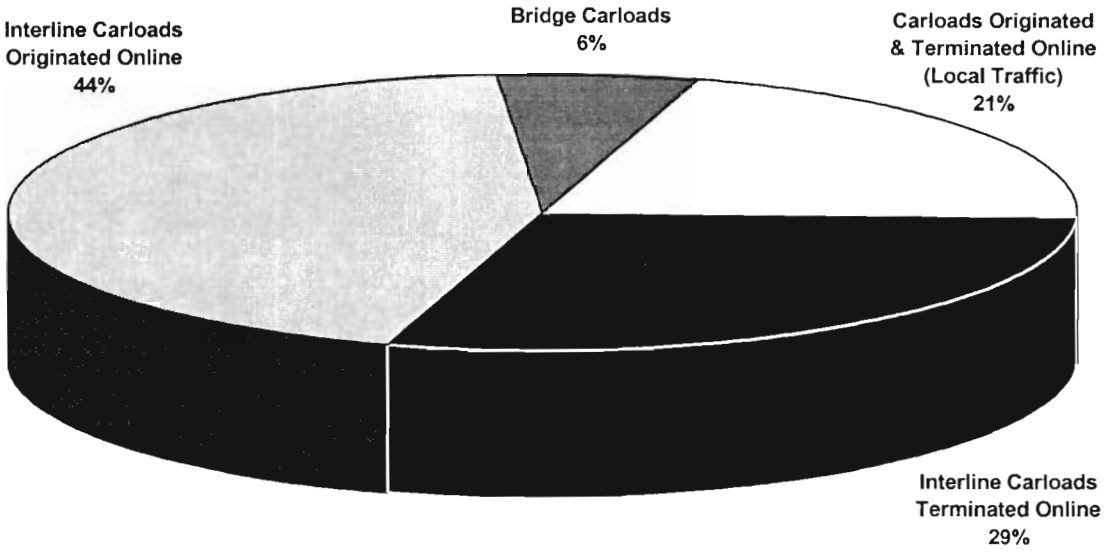


Figure 28 presents the small railroad carload movement mix for 1995. Local traffic and interline carloads originated online represent the largest carload movement types. They each represent about 30 percent of overall carload traffic. The next three figures display the carload movement mix into the three railroad types, Local Line-haul, Regional, and Switching & Terminal.

Figure 29: Local Line-haul Railroad Movement Mix



In 1995, the Local Line-haul railroads' major carload movement was interline carloads originating online. Figure 29 shows that interline carloads makeup a much higher portion of the Local Line-haul movement mix than for all small railroads as shown in Figure 28. Local cars represent 21 percent of the carloads handled by Local Line-haul railroads in contrast to 32 percent for all small railroads (Figure 28).

Figure 30: Regional Railroad Movement Mix

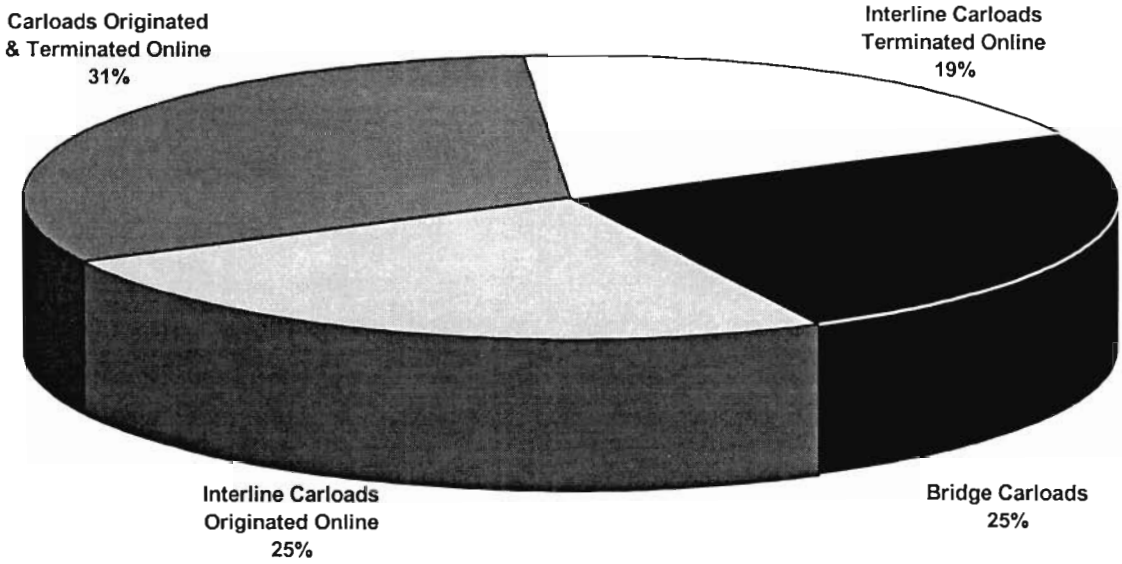
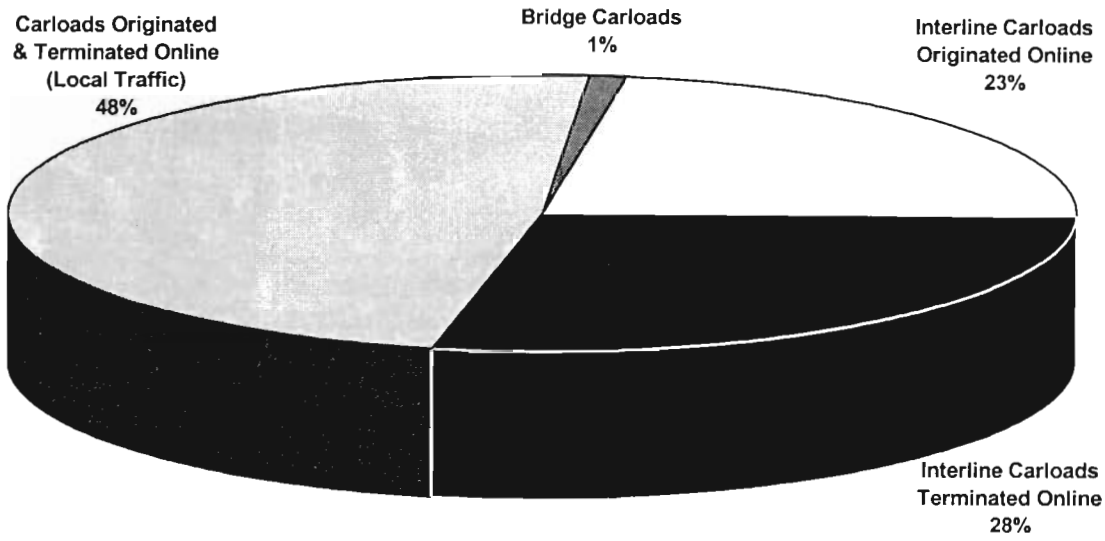


Figure 30 shows that local carloads make up the largest portion of the Regional railroad traffic volume generating 31 percent of the total movement mix. Bridge carloads and interline carloads originated online each makeup one-fourth of the Regional traffic volume, while carloads terminated online account for around 19 percent of the traffic volume. By comparison, local carloads and bridge carloads make up a larger portion of the movement mix for Regional railroads than for Local Line-haul railroads (Figure 29).

Figure 31: Switching & Terminal Railroad Movement Mix



The 1995 Switching & Terminal railroad respondents show that just under half of their carloads were moved locally. Interline carloads, both originated and terminated, represent 51 percent of the Switching and Terminal traffic volume. Bridge carloads represent only one percent of the Switching and Terminal carload movement as reported by those railroads responding to the 1995 survey.

Figures 32 through 35 display the movement mix on small railroads by the regions specified by the American Short Line Railroad Association. The East region movement consists mainly of carloads originated and/or terminated locally. Bridge traffic makes up only five percent of the East region's movement.

Conversely, Figure 33 shows that bridge traffic makes up nearly one-third of the Pacific region carload movement. Interline carloads originated online represent the largest portion of Pacific region traffic at 36 percent. For the Southern region, Figure 34 shows that the major movement type takes place locally as carloads originated and terminated online make up 44 percent of the South region's carload movement. For the West-Southwest region, traffic movement is more evenly disbursed across the four types of carload movement. Figure 35 shows that bridge carloads make up the lowest percent of West-Southwest region movement, while local carloads are the highest at 34 percent.

Figure 32: Eastern Region Movement Mix

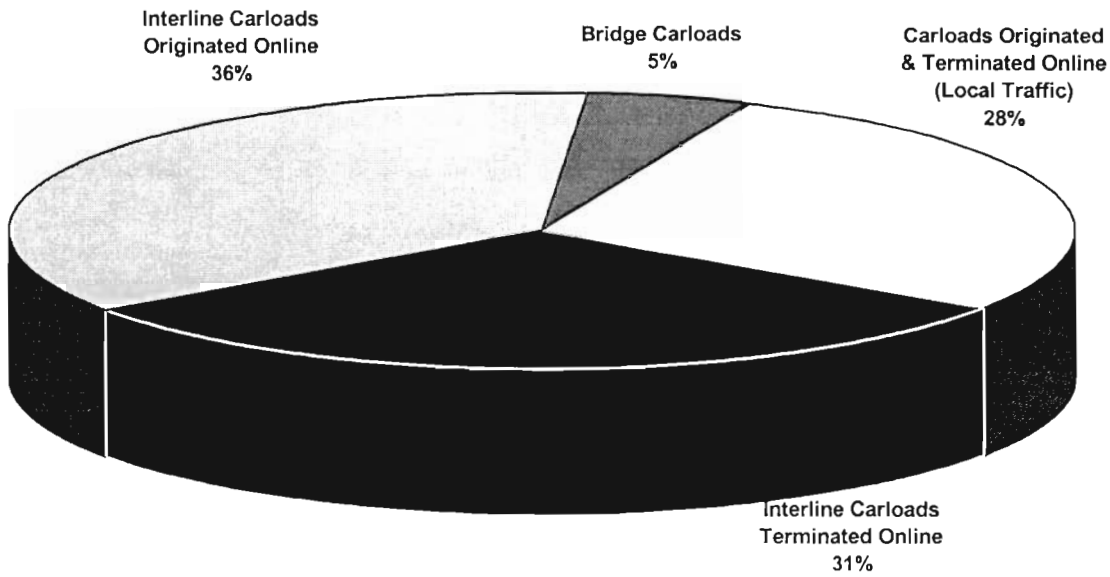


Figure 33: Pacific Region Movement Mix

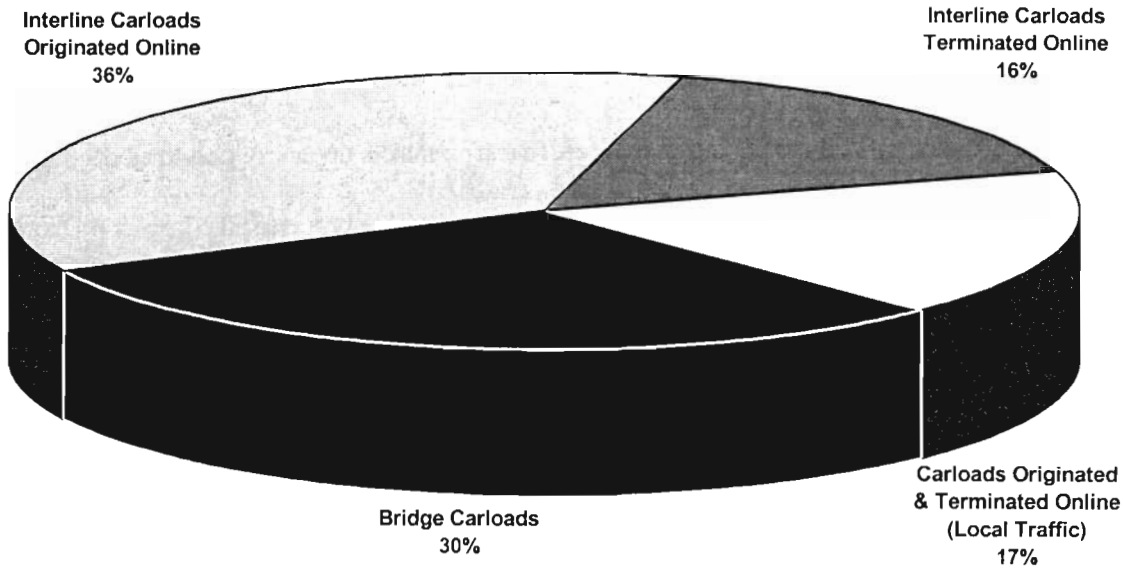


Figure 34: Southern Region Movement Mix

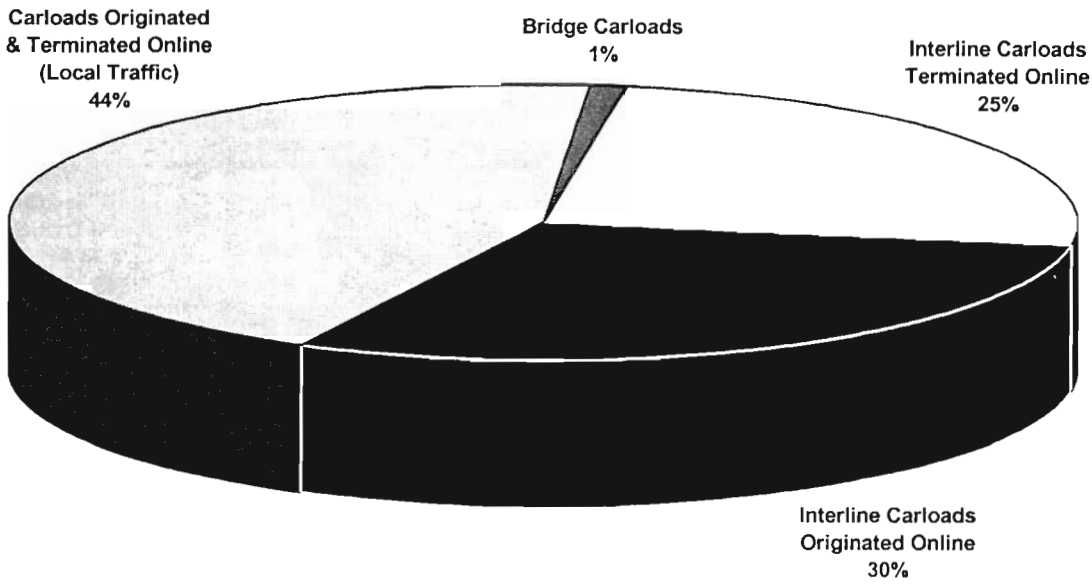
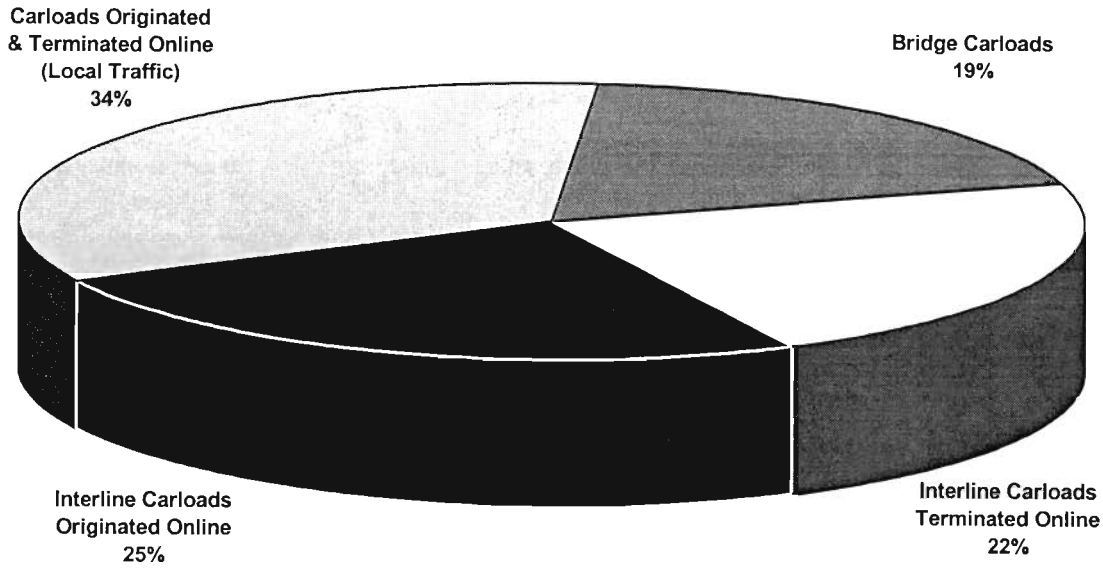


Figure 35: West-Southwest Region Movement Mix



PHYSICAL PROFILE

Railroads responding to the 1995 survey operate 25,059 miles of road in the United States. Eighty-one percent of the miles operated is owned by the railroads. Seventy-eight percent of the miles owned has 90-pound or heavier rail.

Figure 36 compares the miles operated, miles owned, and miles owned with greater than 90-pound rail for each of the four regions. Small railroads responding from the West-Southwest region operate more miles of road than those from the other three regions combined. Results from the 1995 survey indicate that 93 percent of the Eastern road that is owned is greater than 90 pounds. The West-Southwest follows with 78 percent owned greater than 90 pounds, South is next with 71 percent, and the Pacific has 66 percent of owned road greater than 90 pounds.

The Southern region has the highest percentage of owned mileage with 94 percent of the reported mileage being owned.

Figure 36: Small Railroad Mileage By Region

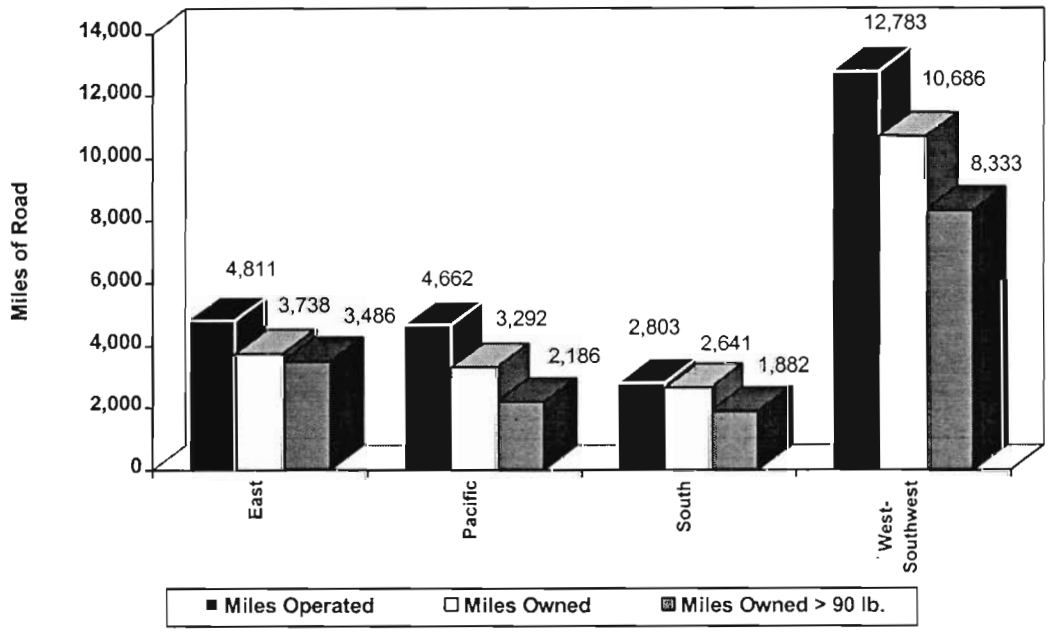


Figure 37: Small Railroad Percent Of Road Owned That Is Greater Than 90 Pounds 1993-95

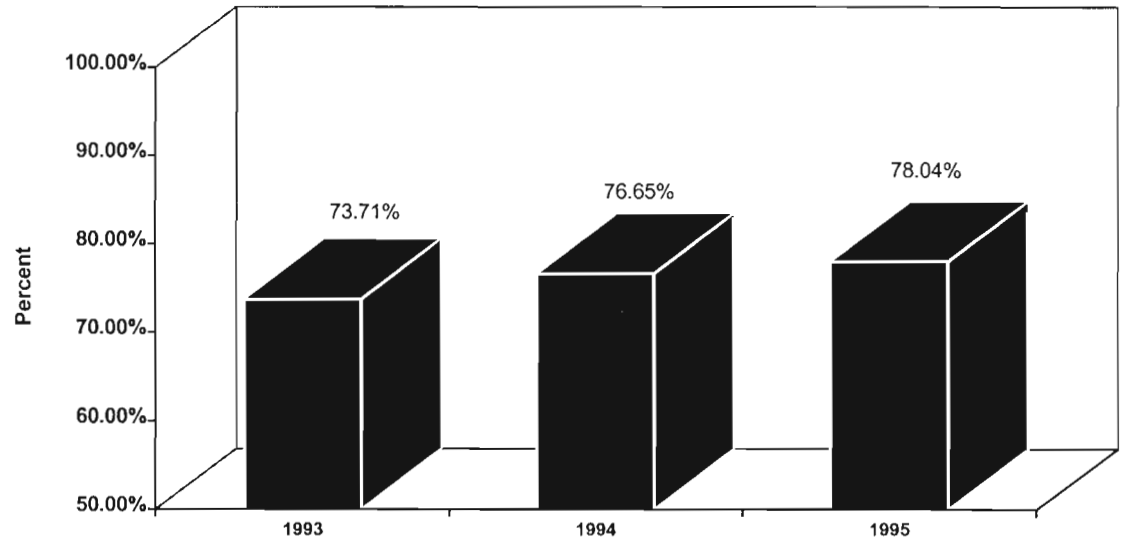


Figure 37 shows the percentage of road owned that is greater than 90-pound rail for the three years of the survey. From 1993 to 1995 there has been an increase in the reported percent of small railroad track that has greater than 90-pound rail.

Figure 38 illustrates the average and median number of miles of road operated per customer served for each of the three survey years (1993-95). There is an increasing trend in the number of miles of road operated per customer served over the three years of the ASLRA survey.

Figure 39 displays the miles of road owned by FRA designated track classes. Nearly 40 percent of the miles owned were reported as being FRA Class 2 type road.

Figure 38: Small Railroad Average And Median Miles Operated Per Customer Served 1993-95

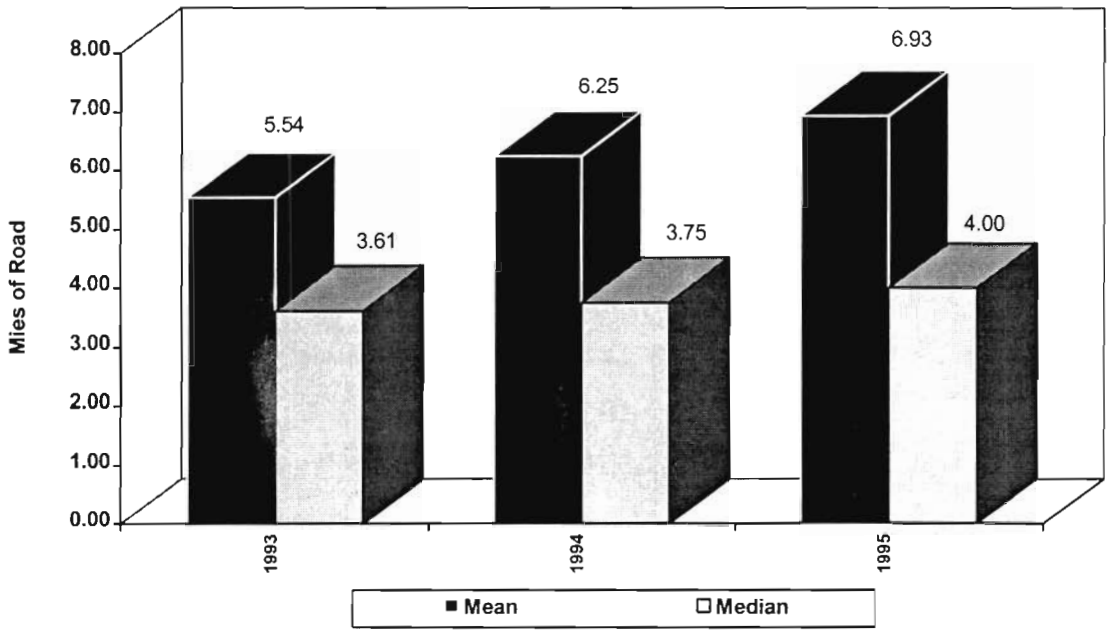


Figure 39: Small Railroad FRA Track Class

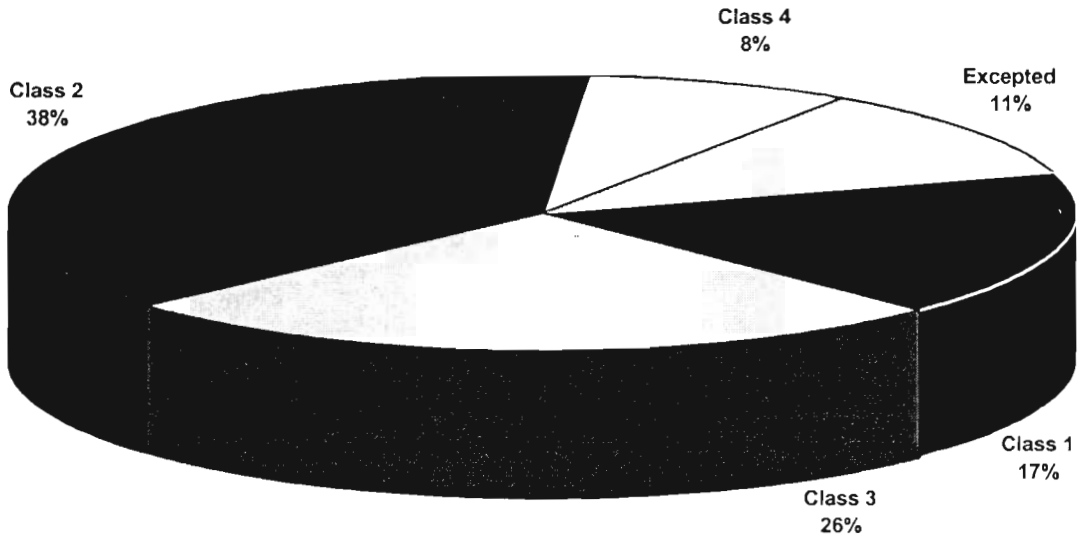
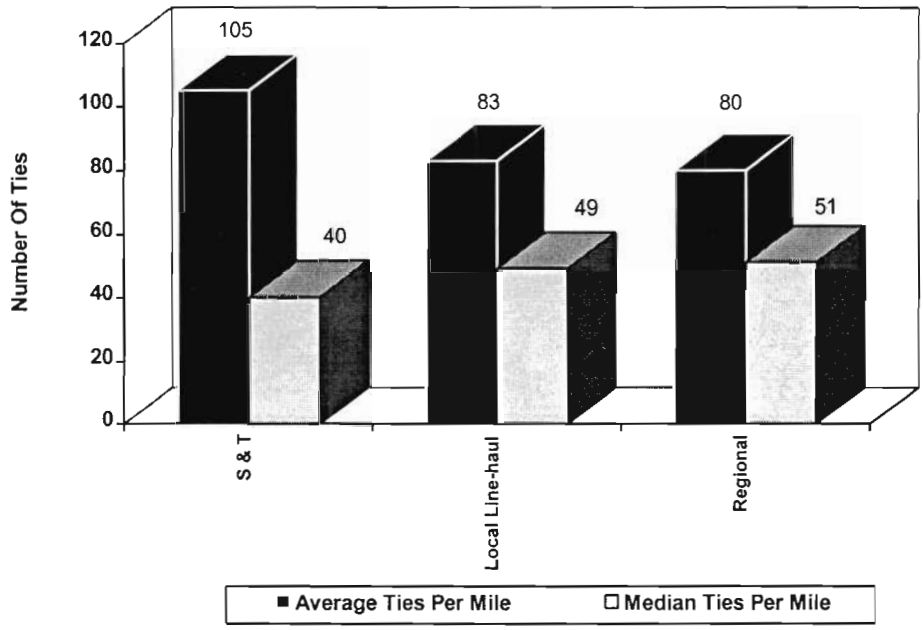


Figure 40 shows the ties replaced (new or used) per mile of road by railroad type. Switching & Terminal railroads had the highest average ties replaced per mile with 105 for 1995. Local line-haul railroads had the second highest ties replaced per mile with 83, followed closely by the Regional railroads at 80. In the median value category, Regional railroads had the highest ties replaced per mile at 51, and Switching & Terminal railroads had the lowest with 40 ties replaced per mile.

Figure 40: Ties Replaced Per Mile Of Road By Railroad Type



The small railroad bridge inventory is shown in Figure 41. Nearly half of the bridges are made of wood on the railroads responding in 1995. Steel bridges make up 28 percent of the bridges, while 12 percent are combination, and 11 percent are concrete.

Table 11 lists the number of small railroad bridges reported by region for 1995. Over 45 percent of the concrete bridges reported were located in the East region. The West-Southwest region reported over 45 percent of each of the remaining bridge types. Overall, 50 percent of the bridges were reported in the West-Southwest region, 21 percent from the East region, 15 percent from the Pacific region, and 14 percent from the South region.

Figure 41: Small Railroad Bridge Inventory

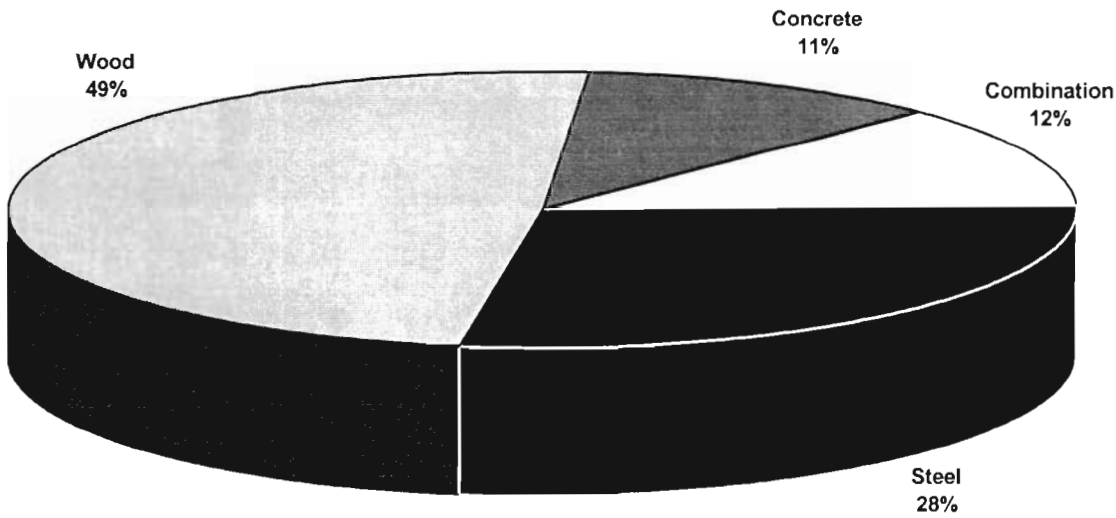


Table 11: Inventory of Bridges

Region	Concrete	Steel	Wood	Combination
East	537	1,197	305	229
West-Southwest	237	1,373	2,950	693
Pacific	315	290	917	47
South	102	100	1,012	266

The number of highway grade crossings reported in the survey are shown in Tables 12 and 13. Table 12 lists the grade crossings by railroad type. Approximately 49 percent of railroad grade crossings reported were by Regional railroads. The percentage of railroad crossings having automatic warning devices was nearly identical for all three railroad types. For 1995 survey respondents, Local Line-haul railroads had 19.74 percent of crossings equipped with automatic warning devices, switching & terminal railroads had 19.34 percent, while Regional railroads were at 19.27 percent.

Table 13 shows railroad grade crossings by region. Fifty-seven percent of railroad grade crossings reported were located in the West-Southwest region. The East region reported the highest percentage of crossings equipped with automatic warning devices at 26 percent.

Table 12: Railroad Grade Crossings By Railroad Type

Region	Public	Private	Automatic Warning Devices
Local Line-haul	8,884	5,601	2,859
Regional	9,809	6,055	3,057
S & T	1,328	709	394

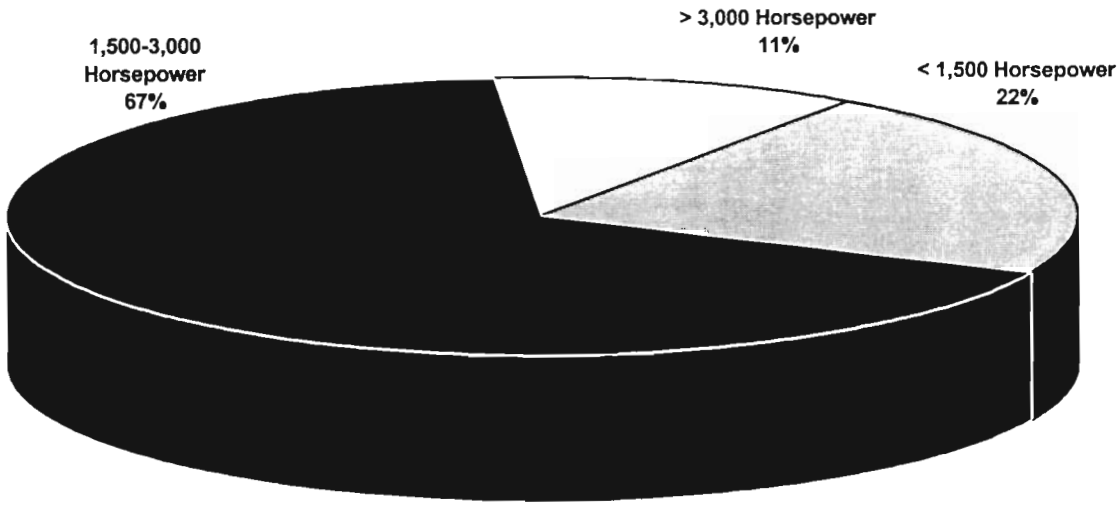
Table 13: Railroad Grade Crossings By Region

Region	Public	Private	Automatic Warning Devices
East	3,179	1,987	1,357
West-Southwest	11,955	6,592	3,296
Pacific	2,032	2,150	753
South	2,838	1,633	904

EQUIPMENT

The locomotive power distribution is given in Figure 42. Approximately two-thirds of all locomotives reported as owned or leased were in the 1,500 to 3,000 horsepower range.

Figure 42: Small Railroad Locomotive Power Distribution



The following two figures show the age distribution of locomotives for small railroads and for Class I railroads. Figure 43 shows that most locomotives owned or leased by small railroads are over 20 years old. Figure 44 shows that Class I railroad locomotives are almost evenly distributed among the three age groups. Only one percent of the reported small railroad locomotives are less than ten years old compared with 31 percent for the Class I locomotives in this age category.

Figure 43: Small Railroad Locomotive Age Distribution

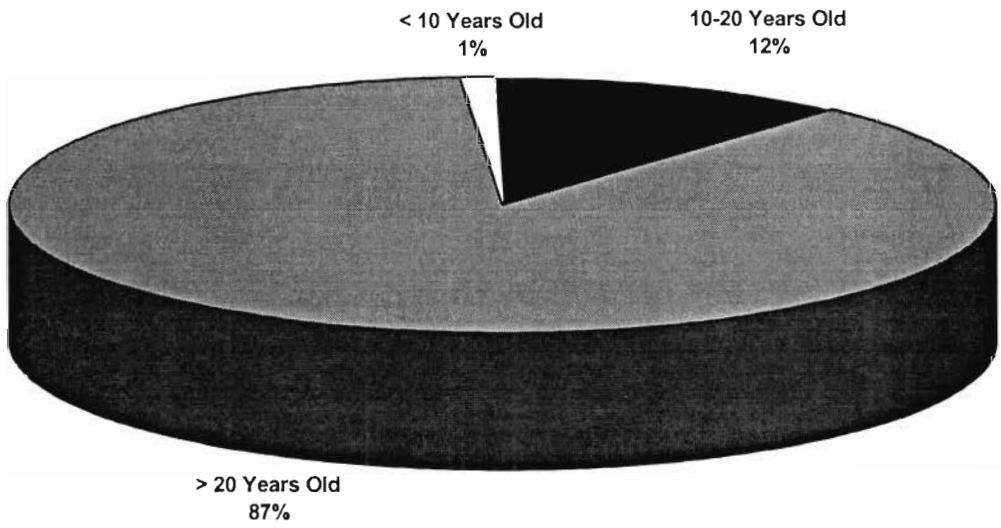


Figure 44: Class I Railroad Locomotive Age Distribution

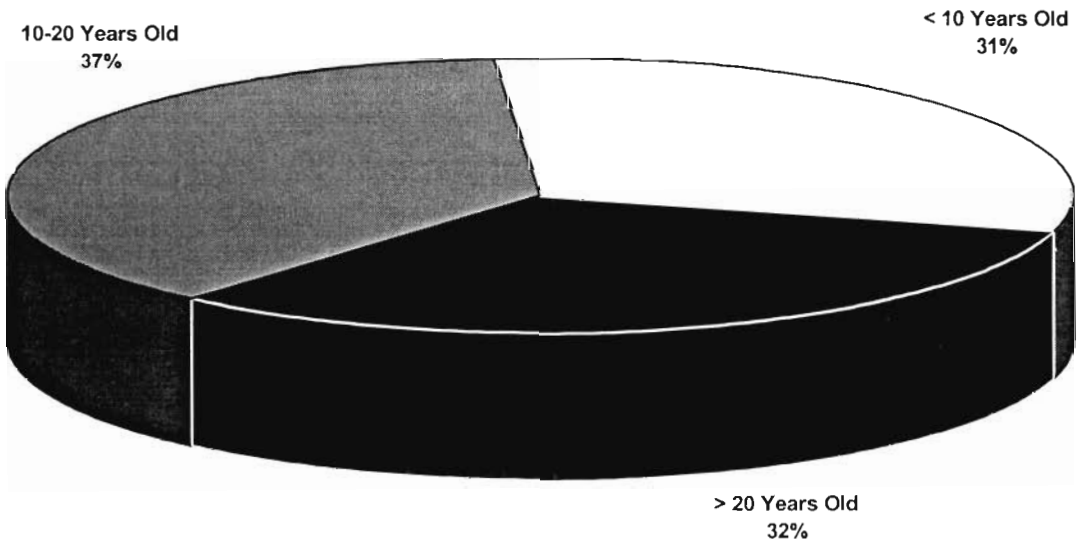


Figure 45: Small Railroad Freight Car Distribution By Age

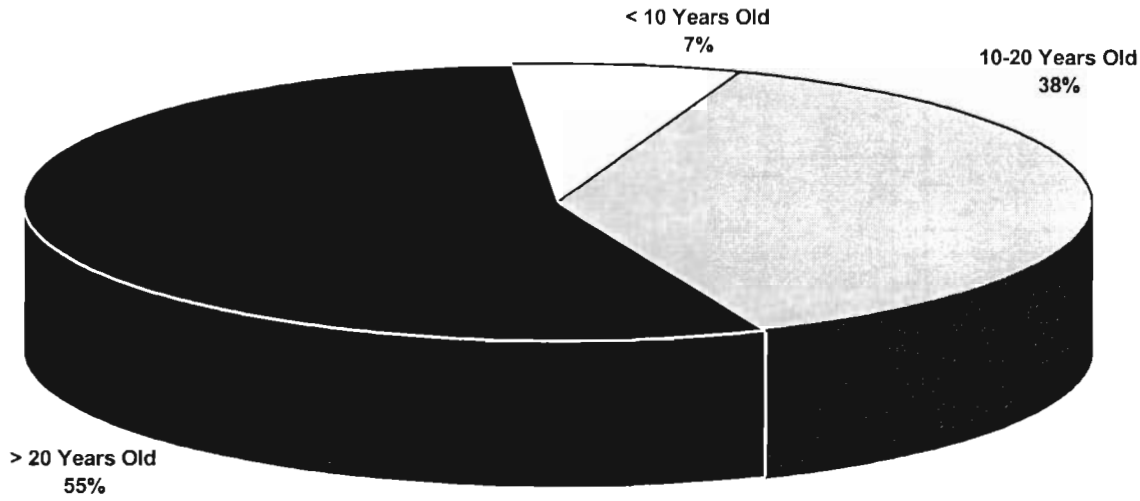


Figure 45 shows the age distribution among railroad freight cars owned or leased by those small railroads responding to the 1995 survey. Over half of the freight cars are greater than 20 years old, while only 7 percent of the small railroad freight cars are less than 10 years old.

Figures 46 and 47 identify the car type distribution for the responding small railroads and Class I railroads. The highest percentage of car types for short lines are the box car and open top hopper types. The highest percentage of car types for Class I railroads are the covered hopper and the open top hopper types.

Figure 46: Small Railroad Car Type Distribution

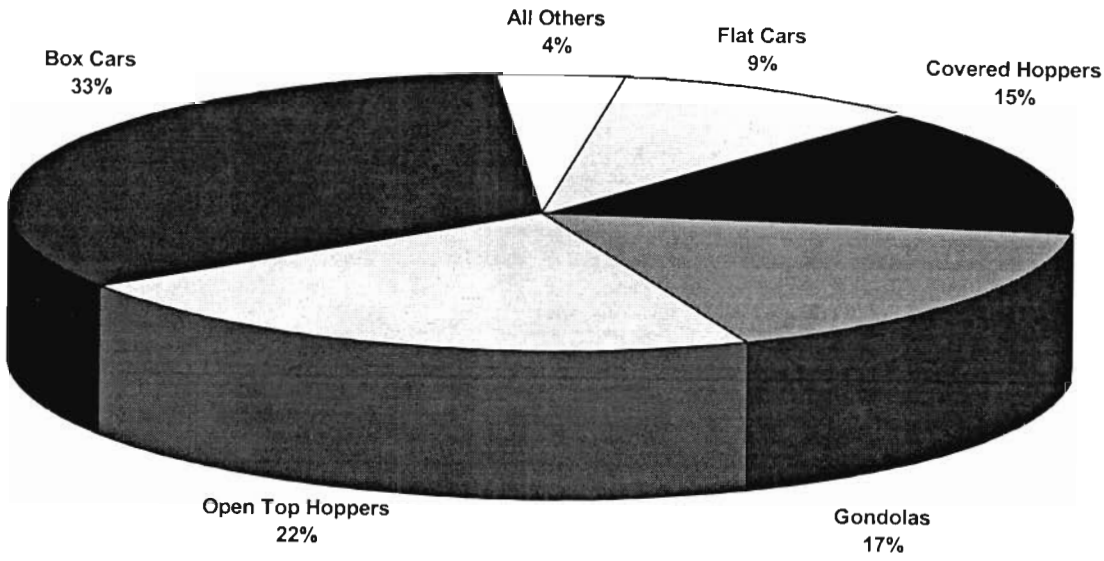
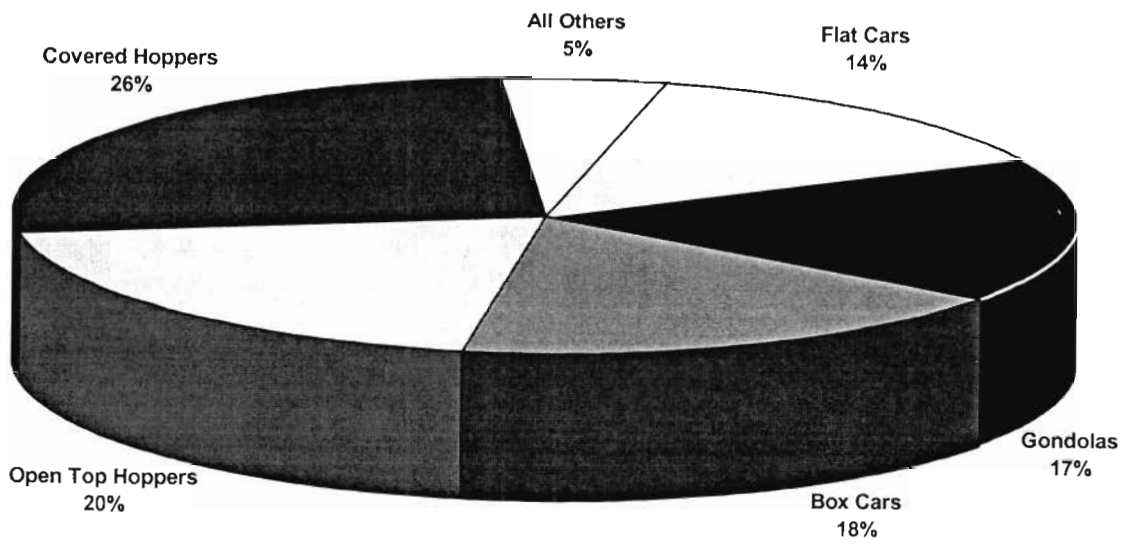


Figure 47: Class I Car Type Distribution



Figures 48 through 50 show the car type distribution by railroad types. The top car types for Regional carriers are open top hoppers, box cars and gondolas. The top car types for Local Line-haul carriers are box cars, open top hoppers, and covered hoppers. Switching & Terminal carriers top car types are gondolas, box cars, and open top hoppers.

Figure 48: Regional Railroad Car Type Distribution

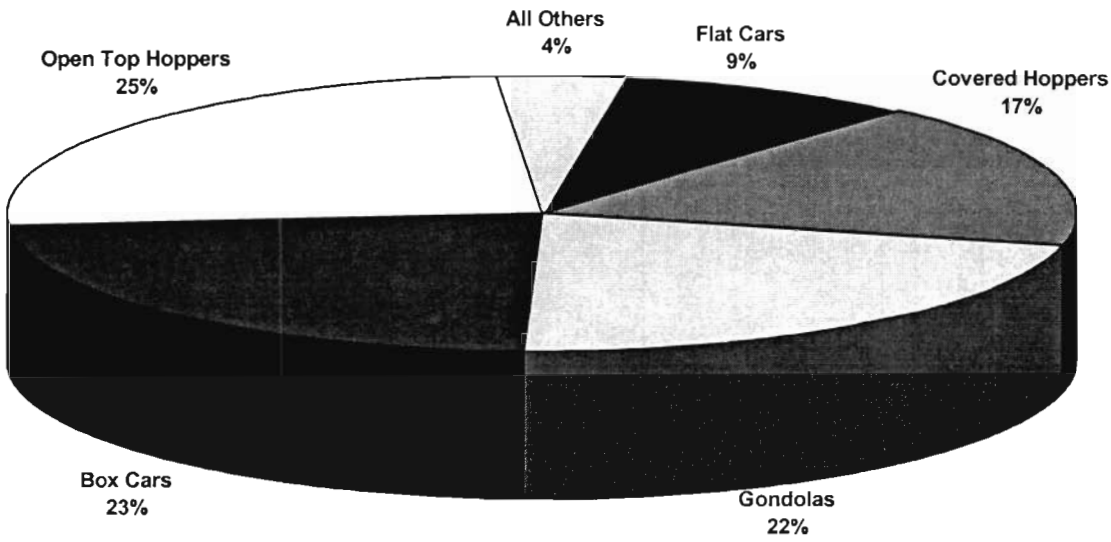


Figure 49: Local Line-haul Car Type Distribution

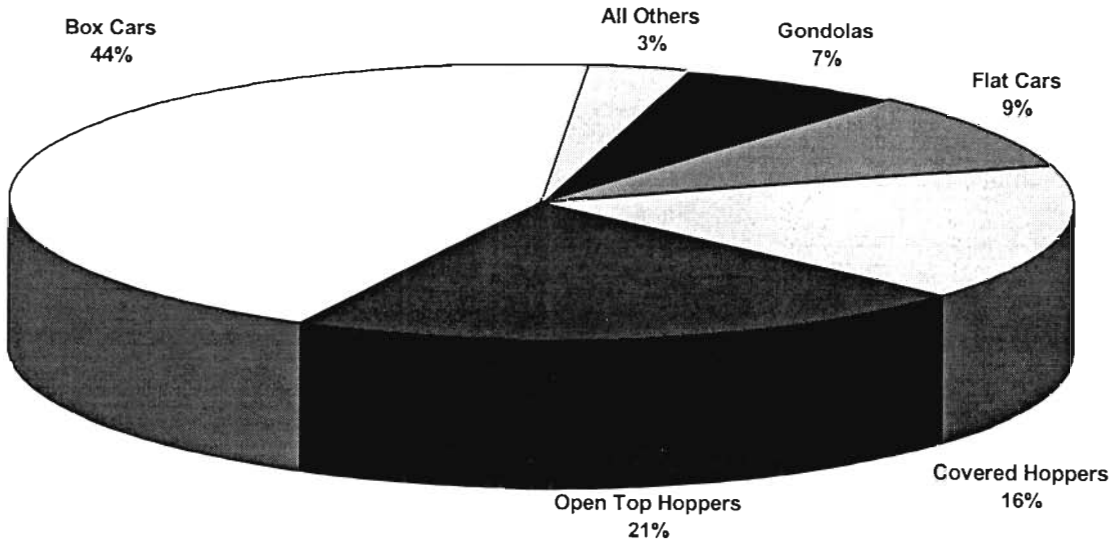
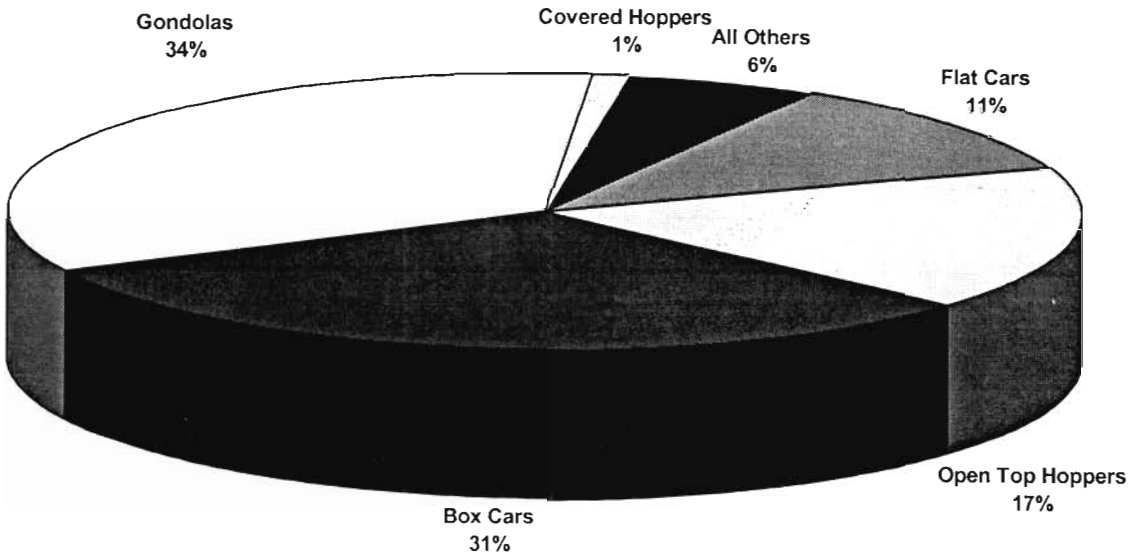


Figure 50: S & T Car Type Distribution



FINANCES

Figures 51 and 52 show the distribution of railroad operating expenses for small railroads and Class I railroads. For both groups, the largest expense is transportation, followed by equipment, way and structures, and general and administrative. General and administrative costs comprise a larger percentage of expenses for small railroads than the Class I railroads. The 'other' category of expenses comprises 10 percent of the small railroad total operating expense. The 'other' expense category is not included in the Class I railroad expense distribution.

Figure 51: Small Railroad Operating Expenses

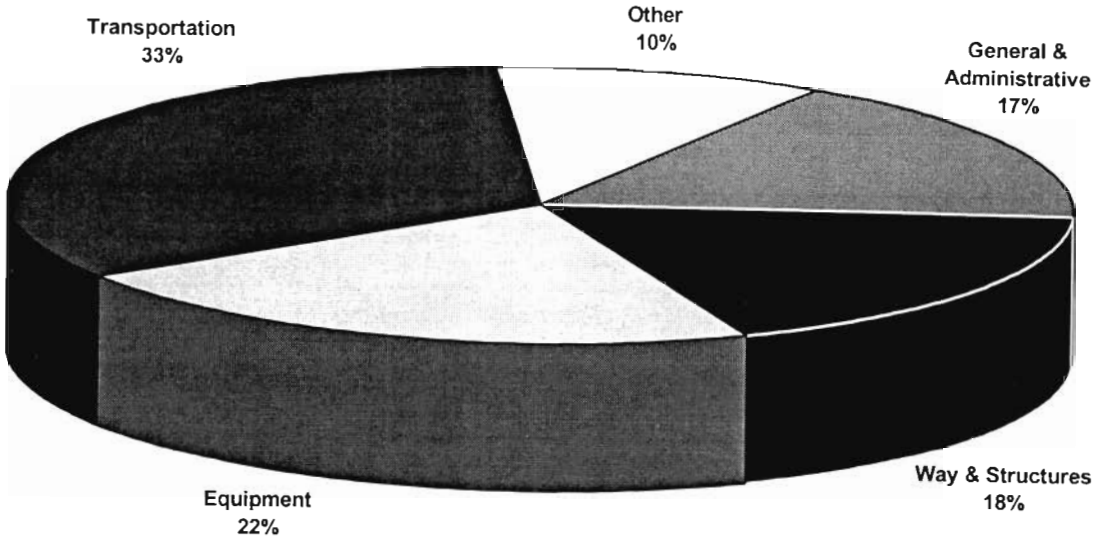
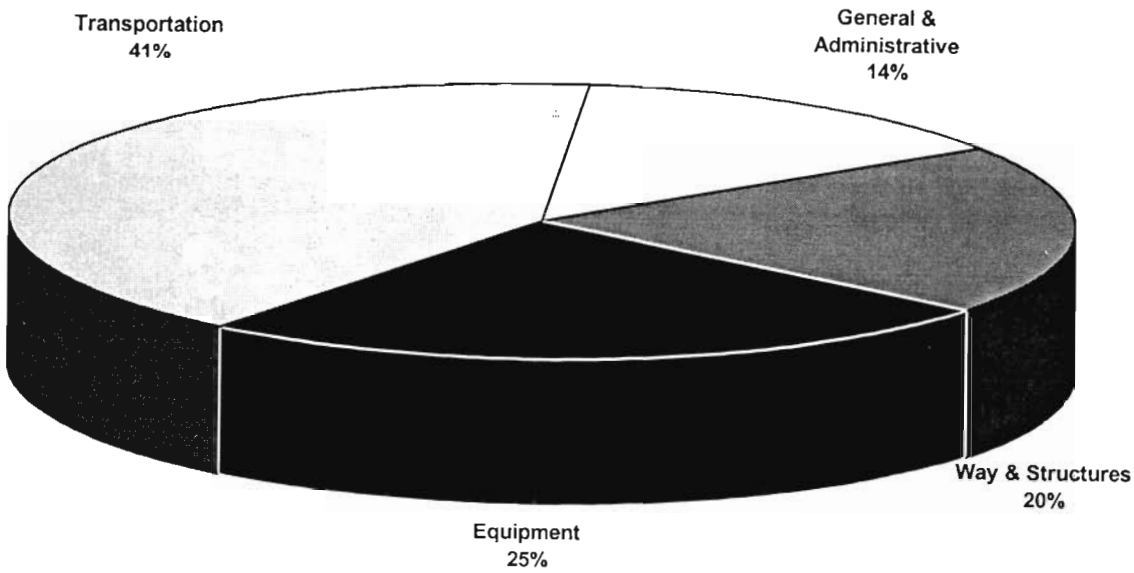


Figure 52: Class I Railroad Operating Expenses



Projected capital investments over the next 5-year period were collected in the 1995 survey. Figures 53 through 56 illustrate the distribution and total dollar amounts of the projected investments. Figure 53 divides the investments into three categories; equipment, road, and other investments. Figure 54 provides greater detail by further subdividing these categories into locomotive, rolling stock, track, structure, and other investments.

The total projected dollar amounts invested for the distribution shown in Figure 53 are illustrated in Figure 55. Figure 56 shows the projected dollar amounts invested for the same investment categories shown in Figure 54.

The percentage of an investment funded internally for each type of capital investment are shown in Figures 57 and 58. Figure 57 illustrates the investment categories displayed in Figure 53 while Figure 58 illustrates the percent funded internally for each investment category shown in Figure 56.

Figure 53: Projected Capital Investment For Next 5-Year Period

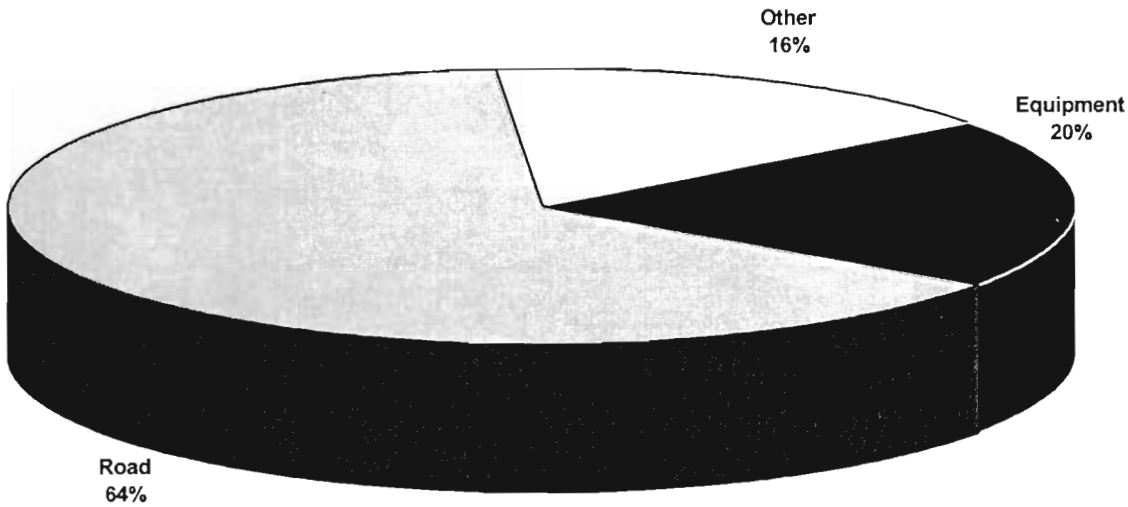


Figure 54: Projected Capital Investment For Next 5-Year Period

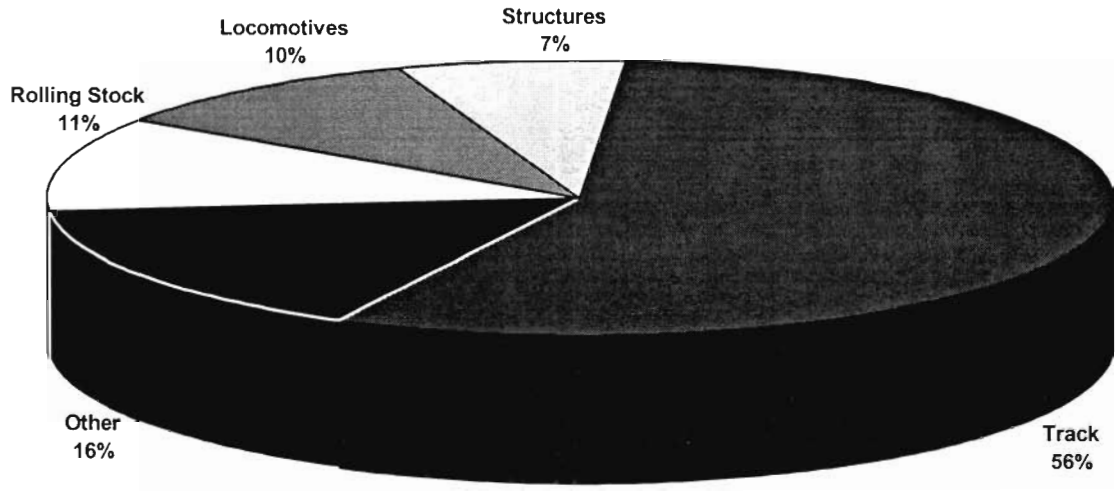


Figure 55: Projected Capital Investment For Next 5-Year Period

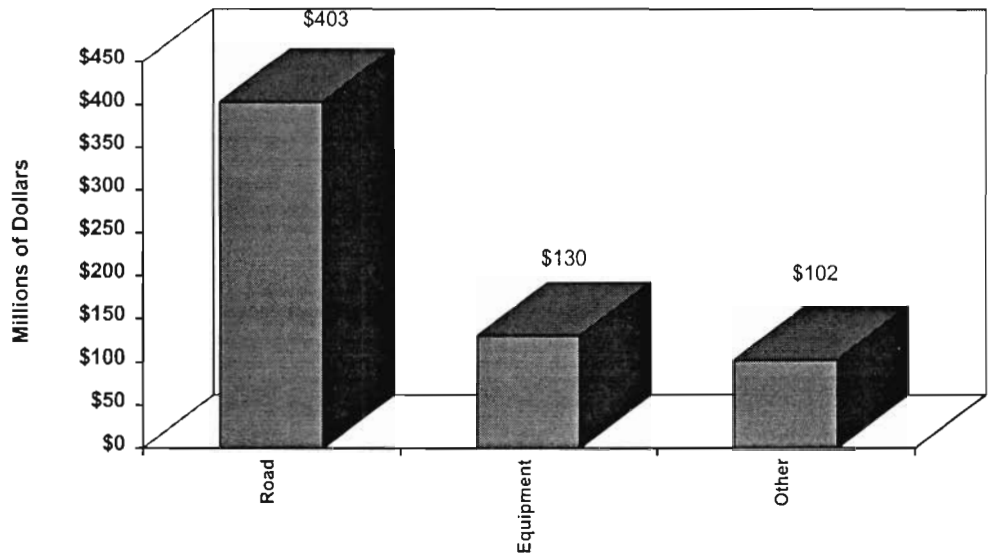


Figure 56: Projected Capital Investment For Next 5-Year Period

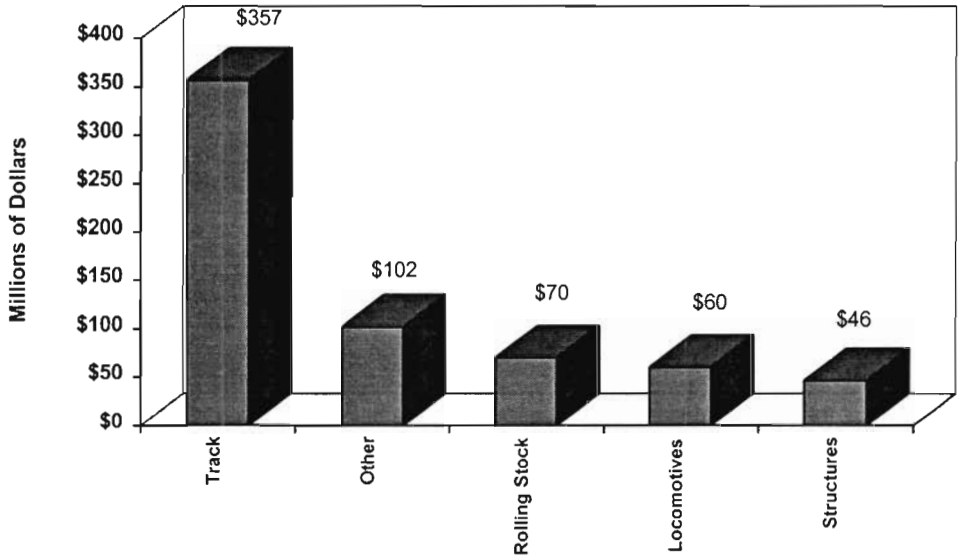


Figure 57: Projected Capital Investment For Next 5-Year Period Funded Internally

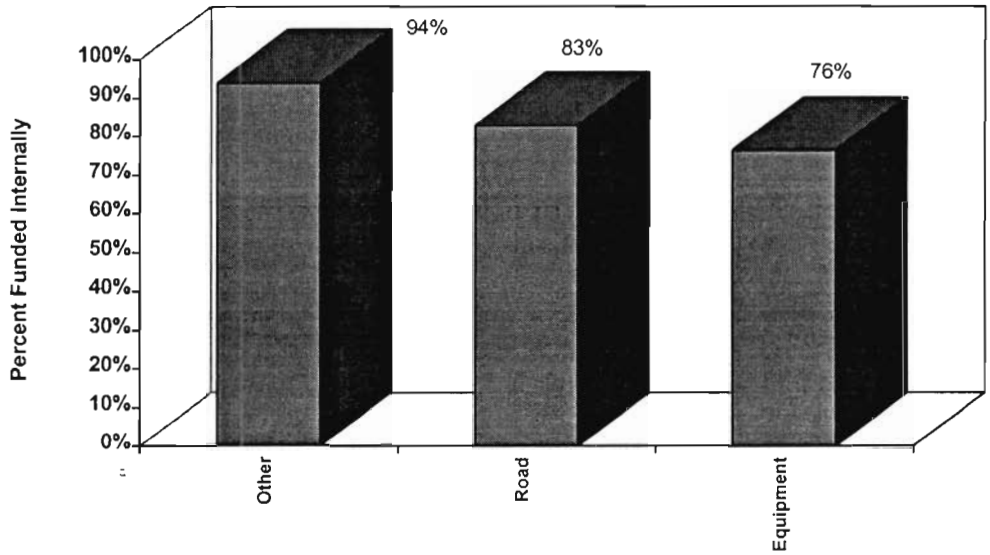
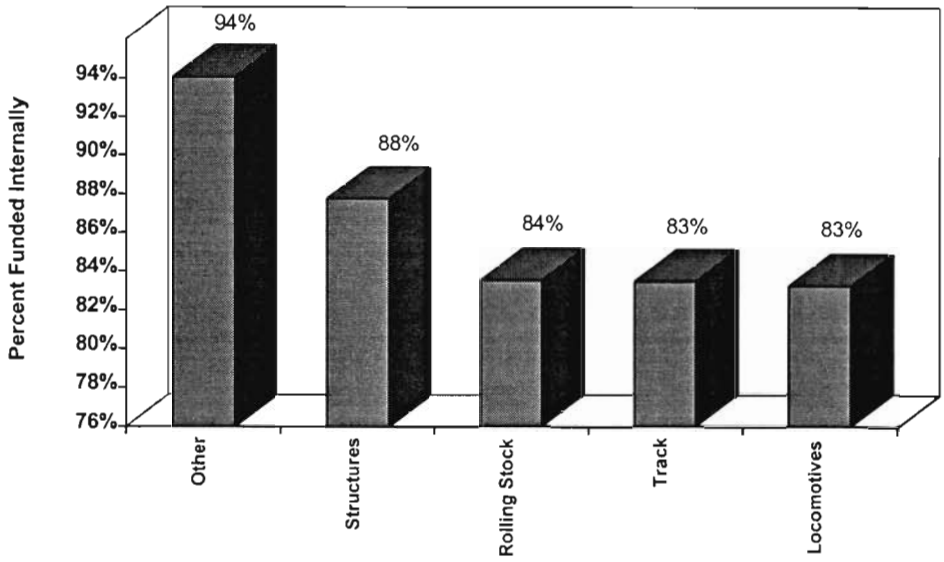
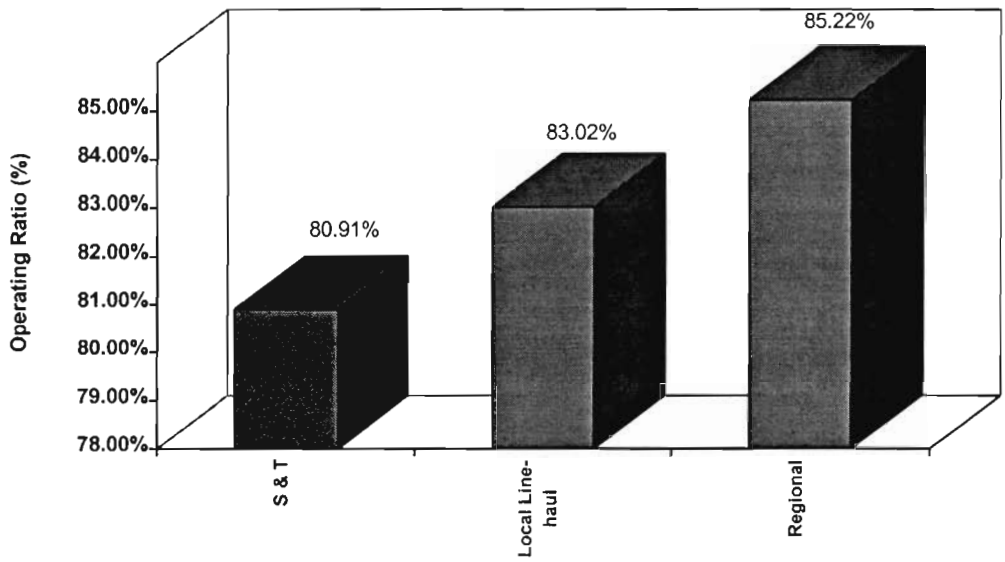


Figure 58: Projected Capital Investment For Next 5-Year Period Funded Internally



The average operating ratio for each type of railroad is illustrated in Figure 59. The highest operating ratio was for Regional railroads at 85.2 percent followed by Local Line-haul railroads at 83 percent and Switching & Terminal railroads at 80.9 percent. The operating ratio is calculated by dividing the total operating expenses by total operating revenues.

Figure 59: Average Operating Ratio By Type Of Railroad



OPERATING STATISTICS

Small railroads responding to the 1995 survey accounted for 40.12 million train miles and 47.5 million locomotive miles. This corresponds to an average of 1.18 locomotive units per train. Figure 60 shows the distribution of train miles by region. The majority of the train miles reported were in the West-Southwest region, with over 30 million train miles. Figure 61 illustrates the average number of locomotive units per train for each type of railroad. The highest number of locomotive units per train was 2.66 for the Regional railroads. The Regional railroads used about one more locomotive unit per train than the Local Line-hauls and about 1.5 more locomotive units per train than the Switching & Terminal railroads.

Figure 60: Train Miles By Region

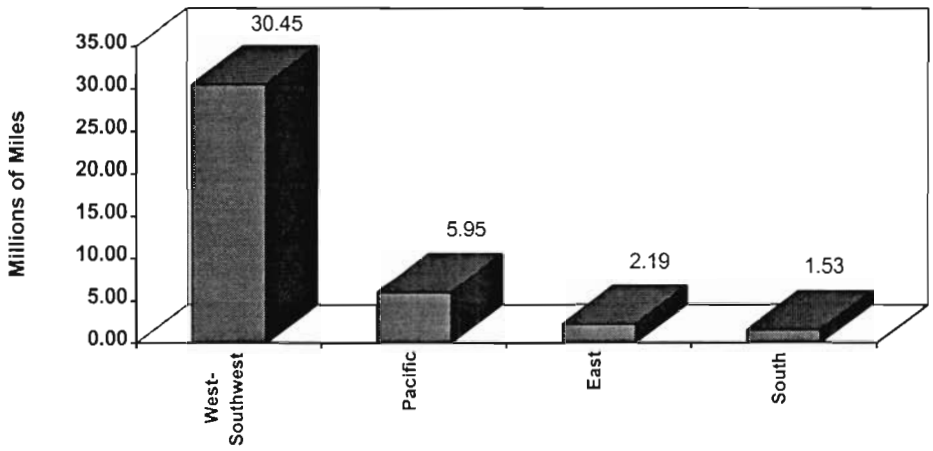


Figure 61: Locomotive Units Per Train By Railroad Type

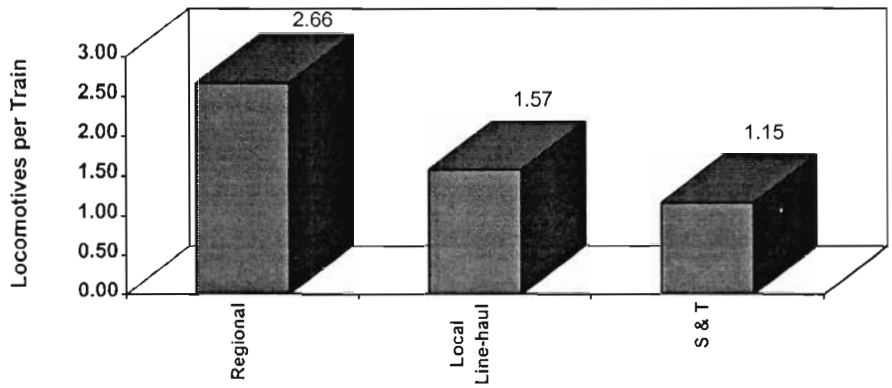


Figure 62 illustrates the average length of haul by type of railroad. Of the small railroads, the Switching & Terminal railroads have the shortest average length of haul at 13 miles, while Regional railroads have the longest average length of haul at 167 miles. The Class I railroads' average length of haul was 843 in 1995, which is more than five times the average length of haul for Regional railroads.

Figure 63 illustrates the average length of haul by region of railroad operation for the small railroads responding to the 1995 survey. The Pacific region had the longest length of haul at 61 miles.

Figure 62: Average Length Of Haul By Type Of Railroad

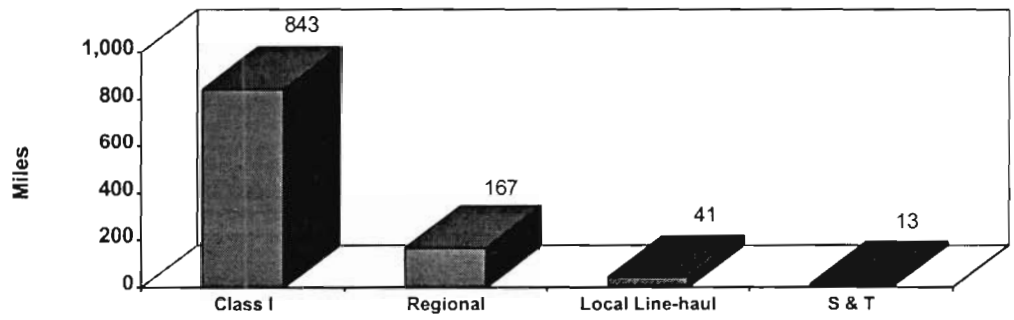


Figure 63: Average Length Of Haul By Region

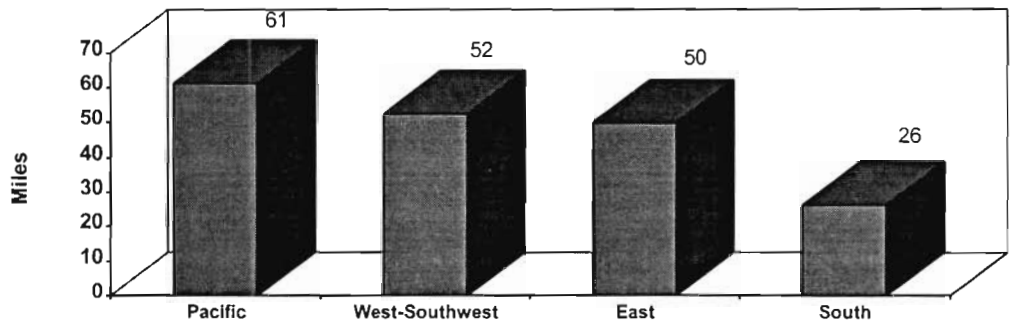


Figure 64 shows the average revenue per carload for each railroad type. The Regional railroads had the highest average revenue per carload at $465 followed by Local Line-haul railroads at $321 and Switching & Terminal at $252.

As shown in Figure 65, Switching & Terminal railroads had the highest average weight per carload, 86.5 tons. Regional railroads had the lowest average weight per carload with 84.2 tons while Local Line-haul railroads had an average weight per carload of 84.8 tons.

Figure 66 shows the average cost per gallon of diesel by region for the years 1993 through 1995. In 1995, reporting railroads consumed a total of 119.33 million gallons of diesel fuel at an average cost of $0.6797 per gallon.

Figure 64: Average Revenue Per Carload By Type Of Railroad

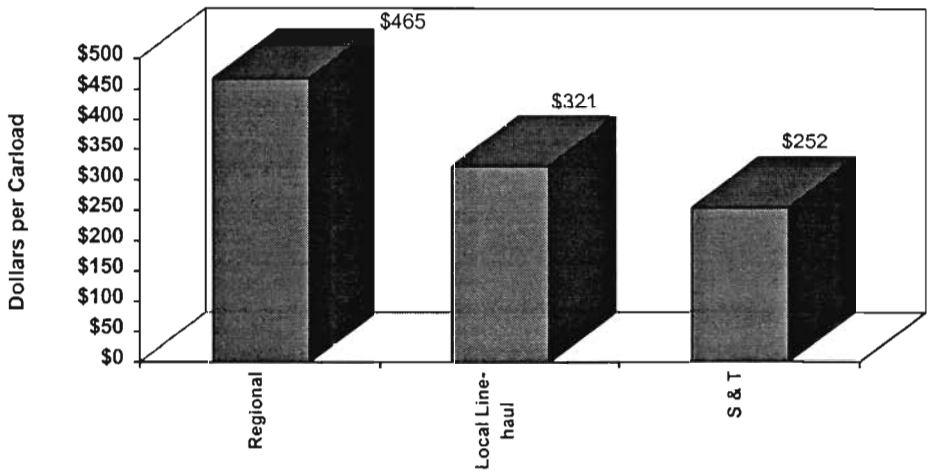


Figure 65: Average Weight Per Carload By Type Of Railroad

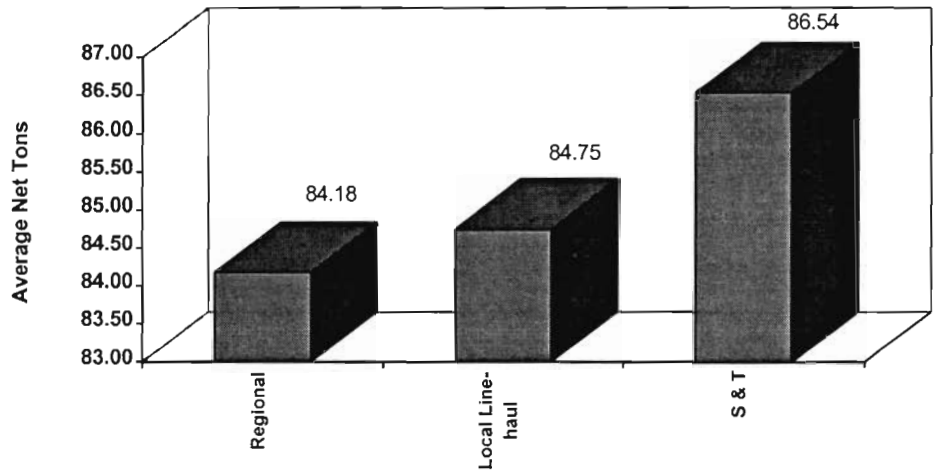
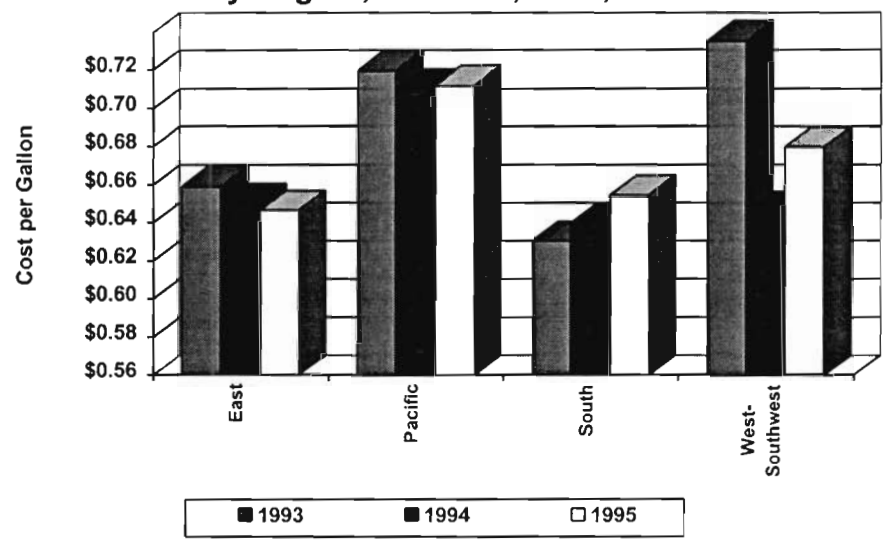


Figure 66: Average Cost Per Gallon Of Diesel Fuel By Region, For 1993, 1994, and 1995

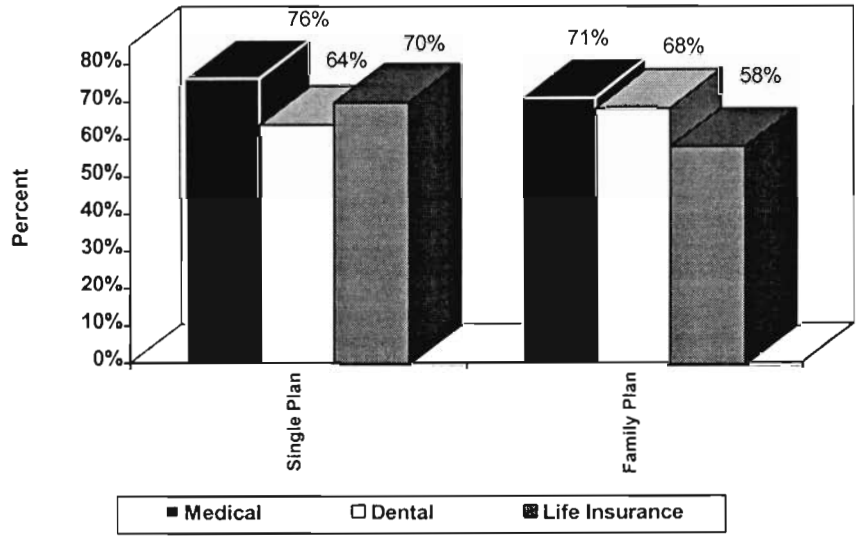


BENEFITS

This section presents a series of graphs illustrating the employee compensation benefit characteristics for the reporting railroads in 1995. The graphs represent the percentage of small railroads offering benefit plans and the percent of employee contribution towards these plans.

Figure 67 shows the percent of reporting railroads who provide benefit plans for their employees. A slightly higher percentage of railroads contribute to single plans than to family plans.

Figure 67: Percent Of Small Railroads Reporting Employee Benefit Plans



Figures 68 through 70 show the percent of small railroads reporting medical, dental, and insurance plans for each railroad type. Figure 68 shows the percent of small railroads reporting single and family medical benefits. A slightly higher percentage of small railroads reported offering single medical plans than family medical plans.

Figure 69 shows the percent of small railroads reporting dental plans by railroad type. A lower percentage of small railroads reported dental plans than medical plans for each railroad type.

Figure 70 displays the percent of small railroads reporting life insurance plans for each railroad type.

Figure 68: Percent Of Small Railroads Reporting Employee Medical Plans By Railroad Type

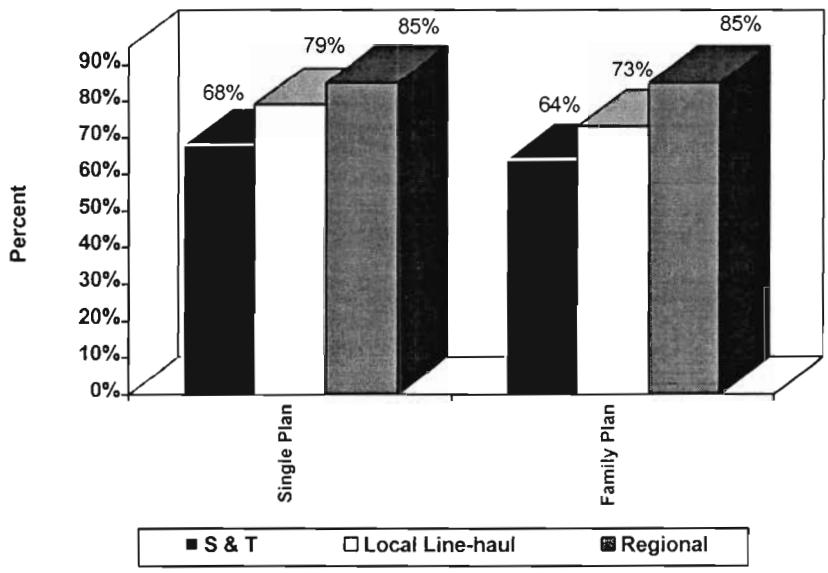


Figure 69: Percent Of Small Railroads Reporting Employee Dental Plans By Railroad Type

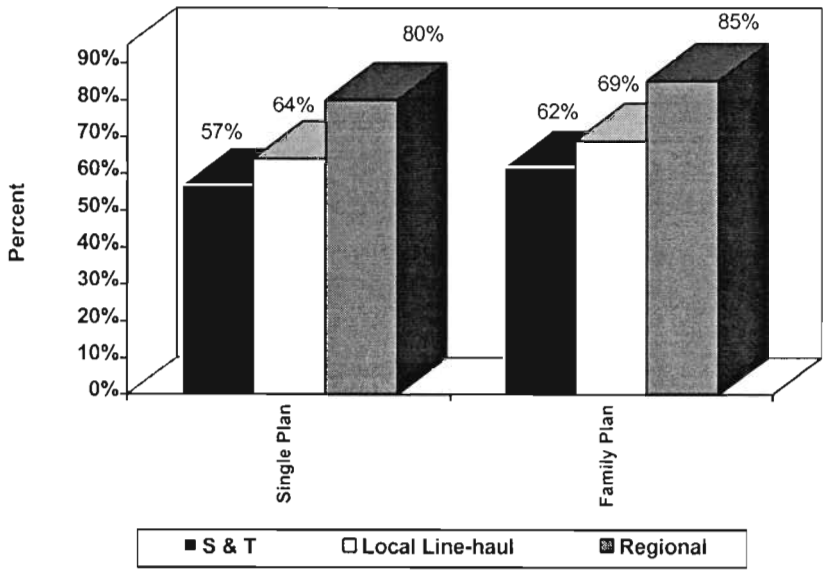
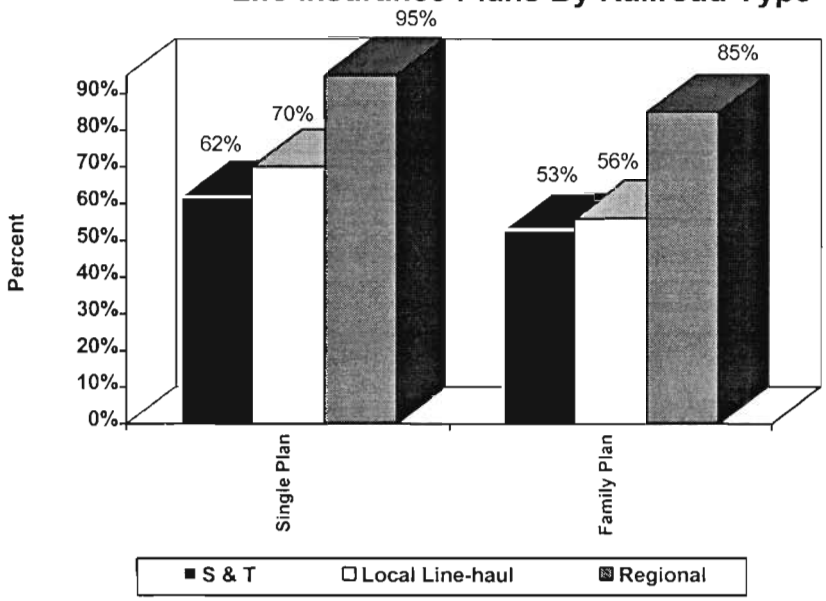


Figure 70: Percent Of Small Railroads Reporting Employee Life Insurance Plans By Railroad Type



Figures 71 through 73 show the average employer contribution to medical, dental, and life insurance plans for the three railroad types. The average employer contribution for medical, dental, and life insurance plans was over 90 percent for each of the three railroad types, except for the Switching & Terminal railroad contribution to single life insurance plans.

Figure 71: Average Employer Contribution Percentage to Medical Plans

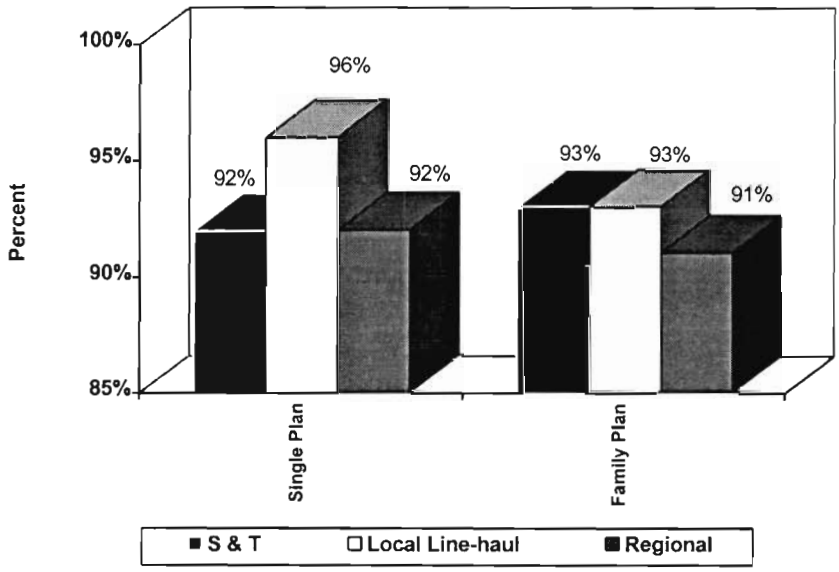


Figure 72: Average Employer Contribution Percentage To Dental Plans

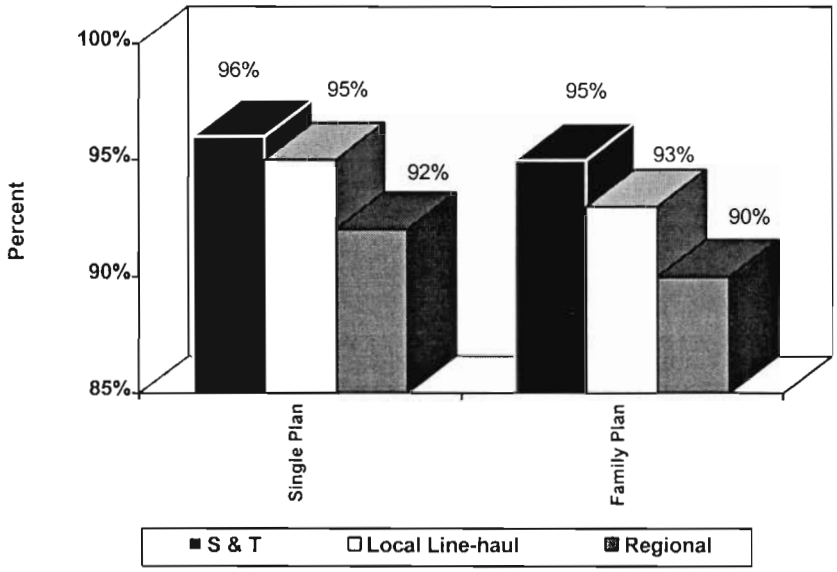
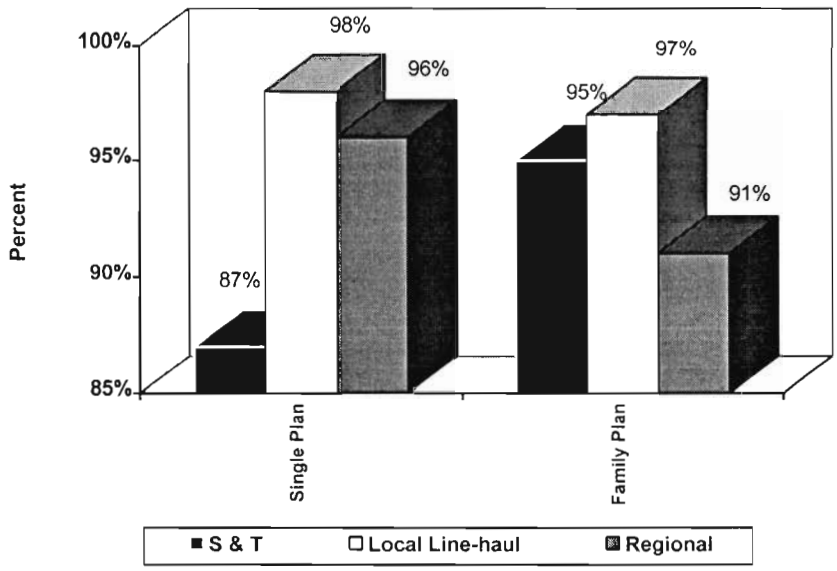


Figure 73: Average Employer Contribution Percentage To Life Insurance Plans



COMPUTER SYSTEMS

Figure 74 compares the percentage of small railroads using different types of computer systems for 1994 and 1995. The most common computer in 1994 and 1995 was the 486 computer. There was a noticeable increase in railroads using Pentium computers, an increase from 20 percent to 44 percent from 1994 to 1995. Also noted in the graph is a decrease in use of 286 and 386 computers.

Figure 74: Types of Computers Used By Small Railroads

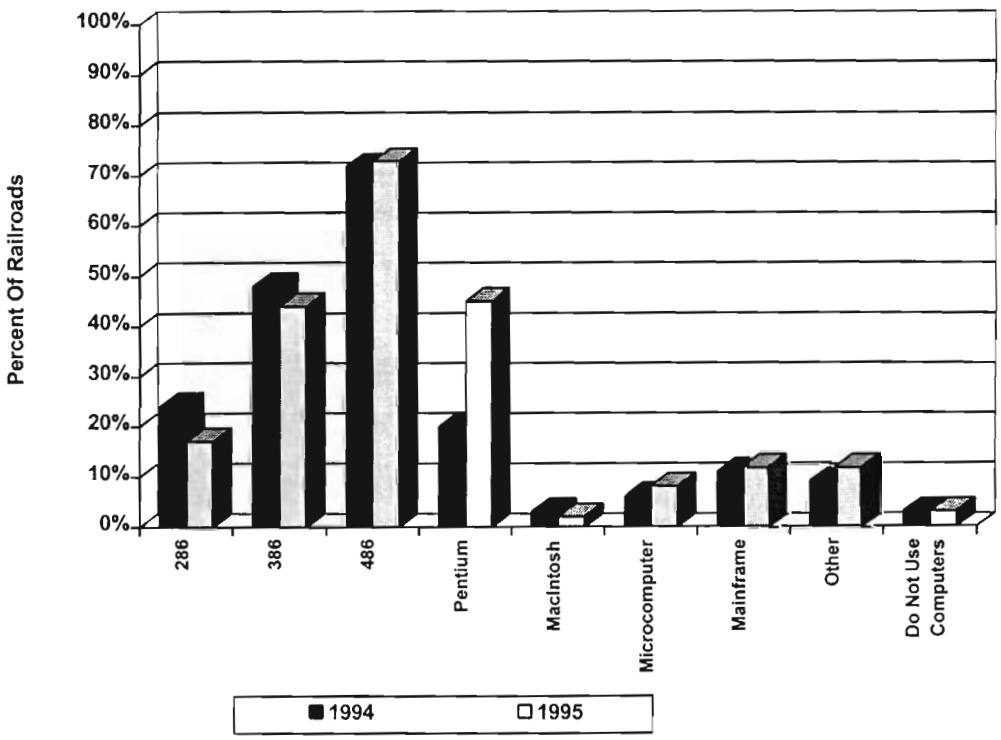


Figure 75 shows the percent of small railroads using certain types of computer applications. Electronic Data Interchange was used by 72 percent of responding small railroads in 1995. Other major applications used by small railroads included accounting/payroll, waybills, car hire, traffic statistics, and inventory control. Car orders and FRA safety reporting applications were used by less than a quarter of responding small railroads.

Figure 75: Types of Applications Used On Small Railroad Computer Systems

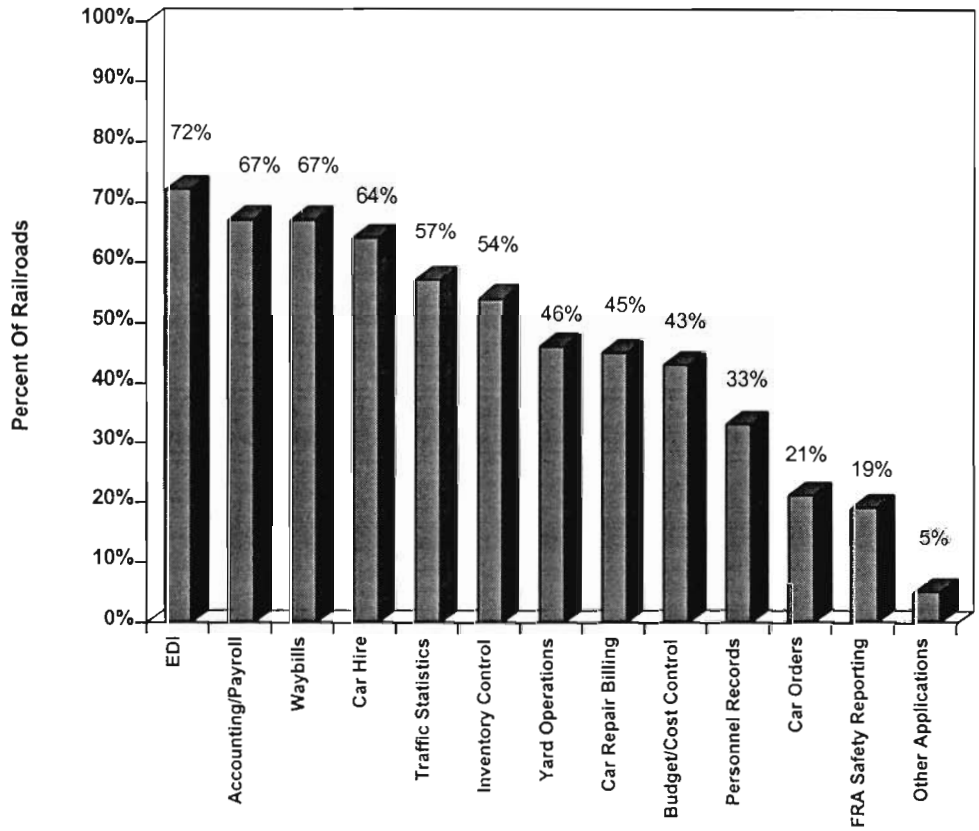
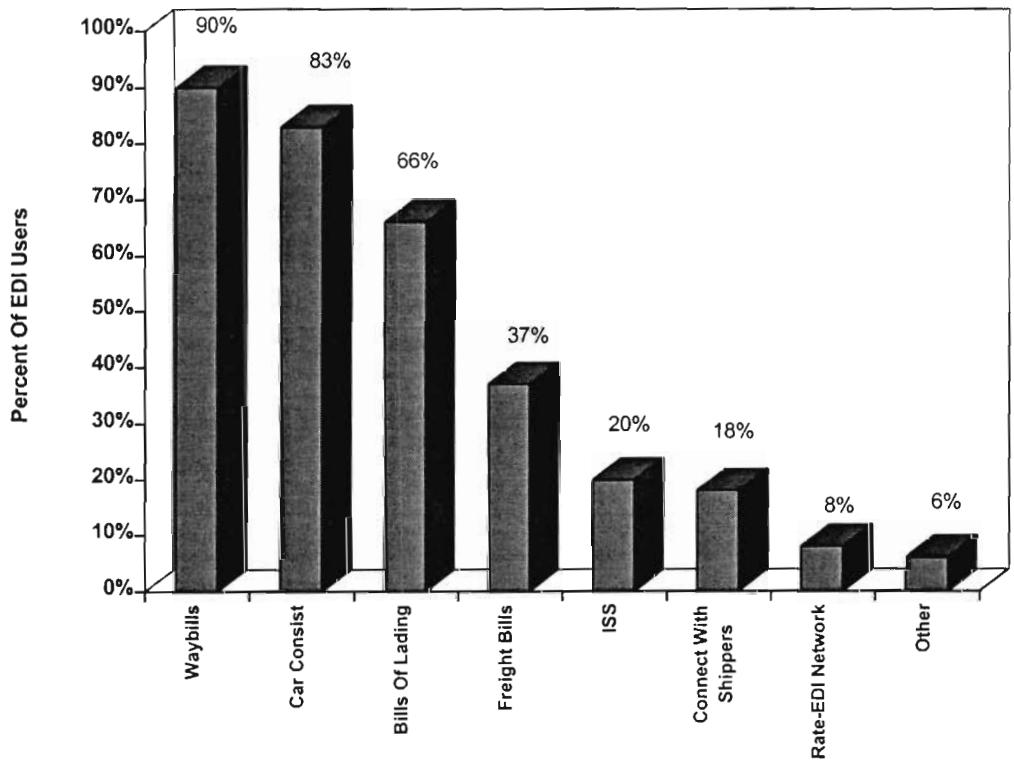


Figure 76 shows types of EDI applications used by small railroads. The values represented in the graph are taken as a percent of those small railroads reporting the use of EDI technology. Nine out of ten EDI users stated that waybills was one of the EDI functions utilized by their railroad. Car consist and bills of lading functions were also used by a majority of the railroads that use EDI functionality.

Figure 76: EDI Functions Used By Small Railroads Employing EDI



PARTICIPATING RAILROADS

Organization	Survey Contact Person
A. T. & L. Railroad Company	Linda L. Price
Aberdeen Carolina & Western Railway	Sandra L. Darnell
Alaska Railroad	Robert Kooren
Alexander Railroad Co.	B.I. Zachary
Allegheny & Eastern Railroad, Inc.	John Craft
Amador Central Railroad Company	P. Schueth
Angelina & Neches River Railroad Co.	David M. Perkins
Apache Railway Co.	K.A. Rank
Apalachicola Northern Railroad Co.	Mr. Gene McCroan
Appanoose County Community Railroad Inc.	Darrel M. Morrow
Arizona & California Railroad	W. A. Frederick
Arizona Eastern Railway Company	Don Tolle
Arkansas & Missouri Railroad Company	James F. Tator
Arkansas Louisiana, & Mississippi Railroad	P. Schueth
Arkansas Midland Railroad Co.	M.P. Silver
Atlantic And Gulf Railroad	K.V. Douglas
Austin And Northwestern Railroad Co.	Robert M. Frelich, Jr.
Batten Kill Railroad Company, Inc.	Ronald E. Crowd
Bauxite And Northern Railway Co.	Clifton Sheridan
Bay Line Railroad	Doug Davis
Belfast & Moosehead Lake Railroad	Jim Pepe
Bessemer & Lake Erie Railroad Company	John F. Marteeny
Birmingham Southern Railroad Company	John F. Marteeny, Director Acctg.
Brownsville & Rio Grande Int'l R.R.	L. E. Cantu
Buckingham Branch Railroad	Mark Bryant
Buffalo & Pittsburgh Railroad, Inc.	John Craft
Buffalo Southern Railroad	Bert Feasley/Jane Franz
California Northern Railroad	Thomas L. Schlosser
Canton Railroad Company	John Handley
Carolina Coastal Railway, Inc.	Jonathan R. Wasson
Carolina Piedmont Division - SCRF	Robert M. Frelich, Jr.
Carolina Rail Service, Inc.	Paul Meyer
Cedar Rapids And Iowa City Railway	Jeffrey Happel
Central Indiana & Western R.R. Company	Mark A. Brown
Central Kansas Railway	Patrick Worrall
Central Michigan Railway	William A. Salter
Central Montana Rail, Inc.	Carla R. Allen
Central Oregon And Pacific Railroad, Inc	Robert M. Frelich, Jr.
Central Railroad Co. Of Indiana	R. Scott Morgan
Champagne Railroad, Inc.	D.R. Hankins
Chesapeake And Albemarle Railroad Co.	Robert M. Frelich, Jr.
Chestnut Ridge Railway Co.	Wilbur O. Smith
Chicago Southshore & South Bend Railroad	H.T. Hearst
City Of Prineville Railway	J.L Price
Claremont Concord Railroad Corp.	Lori Barnes
Colonel's Island Railroad	Robert D. Prescott

Colorado & Wyoming Railway	Robert E. Porter
Columbia & Cowlitz Railway Company	William Ellings
Columbia Terminal Railroad	Christian Johanningmeier
Columbus And Greenville Railway Company	Roger D. Bell
Commonwealth Railway, Inc.	Jonathan R. Wasson
Connecticut Central Railroad Co., Inc.	Robert A. Bass
Cumbres & Toltec Scenic Railroad	Joe C. Vigil
Dakota Rail, Inc.	R.L. Ripley
Dakota, Minnesota & Eastern Railroad	Lynn A. Anderson VP-Marketing
Dakota, Missouri Valley & Western RR	Jeff Wood
Dallas, Garland & Northeastern Railroad	Robert M. Frelich, Jr.
Delta Valley & Southern Railway Co.	Robert H. Fuller
Duluth, Missabe & Iron Range Railway Co.	W.A. Anderson
East Camden & Highland Railroad Company	Jeff Lindsey
East Cooper And Berkeley Railroad	W.D. McDaniel
East Erie Commercial Railroad	Ronald D. Haise
East Jersey Railroad And Terminal Company	Joseph R. Iadanza
East Tennessee Railway, L. P.	Kieth A. Holley
Eastern Alabama Railway	Larry Nordquist
Eastern Idaho Railroad	Michael Klaus
Eastern Shore Railroad, Inc.	Larry E. Lemond, Vice President & GM
Elgin, Joliet, And Eastern Railway Co.	J. C. Franke
Everett Railroad Co.	A.W. Maples
Farmrail System, Inc.	R.S. Shaw, C.O.O
Florida Central Railroad Co.	M.P. Silver
Florida Midland Railroad Co.	M.P. Silver
Florida Northern Railroad Co.	M.P. Silver
Fordyce & Princeton Railroad Company	P. Schueth
Galveston Railroad L.P.	Herb Strange
Genesee & Wyoming Railroad Company	John Craft
Georgia And Alabama Division - SCRF	Robert M. Frelich, Jr.
Georgia Northeastern Railroad Co., Inc.	Keith Douglas
Georgia Southwestern Division - SCRF	Robert M. Frelich, Jr.
Georgia Woodlands Railroad	Patrick Worrall
Gloster Southern Railroad Company	P Schueth
Golden Triangle Railroad	Patsy Gorum
Grand Canyon Railway	Robert Lacivita
Grand Rapids Eastern Railroad, Inc.	Robert M. Frelich, Jr.
Great River Railroad - Rosedale-Bolivar Co. Port Commission	David Work
Great Walton Railroad	Dave Bishop
Green Mountain Railroad Corp	J.M. Hebda
Greenville And Northern Railway	M. P. Silver
Gulf, Colorado & San Saba Railway Corp	Kathy
Hampton & Branchville Railroad Co.	Norris L. Laffitte
Hollis & Eastern Rail Road Co.	Danny Pence, Doyle Ramsey
Hoosier Southern Railroad	Gary V. Hunter
Houston Belt Terminal Railway Co.	Ed Stovall
Indiana & Ohio Central Railroad	D.M. White/D. Dawson
Indiana & Ohio Railway Company	D.M. White/D. Dawson
Indiana Harbor Belt Railroad	K.E. Braatz
Indiana Ohio Railroad, Inc.	D.M. White/D. Dawson

Indiana Rail Road Company	Sandra M. Stockman
Indiana Southern Railroad, Inc.	Robert M. Frelich, Jr.
Iowa Interstate Railroad, Ltd.	Rob Finley
Iowa Northern Railway Company	Mark A. Sabin
K.W.T. Railway, Inc.	W. E. Anderson, G. M.
Kansas Southwestern Railway	Patrick Worrall
Kiamichi Railroad Co. L. L. C.	Jim Shaffer
Kyle Railroad Company	Dan Lovelady
Lake Terminal Railroad Company	John F. Marteeny, Director Acctg.
Lancaster & Chester Railway Company	Norman Causey
Landisville Railroad	Mark Shipe
Little Rock & Western Railway L.P.	Alan Wagoner
Little Rock Port Railroad	Willa Pinkerton
Longview, Portland & Northern Railway Co	Sandra Jarmain
LTV Subsidiary Railroad Companies	William Kuhn
Madison Railroad	Cathy Hale
Manufacturers Railway Co.	Randall J. Weitzel
Maryland And Pennsylvania Railroad Company	G. Robert Gotwols
Maryland Midland Railway	David W. Bordner
McKeesport Connecting Railroad Company	John F. Marteeny, Director Acctg.
Meridian & Bigbee Railroad Co	Keith Logan
Michigan Shore Railroad, Inc.	Robert M. Frelich, Jr.
Mid-Michigan Railroad, Inc.	Robert M. Frelich, Jr.
Mississippi & Skuna Valley Railroad	E.L. (Pete) Stiles
Mississippi Export Railroad Company	M. W. Bagwell
Missouri And Northern Arkansas Railroad	Robert M. Frelich, Jr.
Modesto & Empire Traction Co	Tom L. Nielsen
Mohawk, Adirondack & Northern RR	Peter Gores
Montana Rail Link	Ollie Munier
Moscow, Camden & San Augustine	Doyle Chandler
Mt. Hood Railroad Co.	Dan Reynolds
New England Central Railroad, Inc.	Robert M. Frelich, Jr.
New Hampshire North Coast Corporation	Robert S. Fennerty
New Orleans & Lower Coast Railroad, Inc.	Robert M. Frelich, Jr.
New York, Susquehanna & Western Railway	Mr. Robert Pierce
Norfolk And Portsmouth Belt Line	J. M. Donnelly
North Carolina & Virginia Railroad, Inc.	Robert M. Frelich, Jr.
Northeast Kansas & Missouri Div. - MMRR	Robert M. Frelich, Jr.
Old Augusta Railroad	P. Schueth
Ontario Central RR	Don R. Brown
Otter Tail Valley Railroad	William Roufs
Paducah & Louisville Railway, Inc.	Terry B. Outland
Panhandle Northern RR	Patrick Worrall
Patapsco And Back Rivers Railroad Co.	Matthew Smith
Pend Orielle Valley Railroad	Cliff Robbins
Peoria And Pekin Union Ry Co.	Jack B. Reeser
Phila. Bethlehem And New England RR Co.	Matthew Smith
Point Comfort & Northern Railway	David Besio
Port Bienville Railroad	Robert Tomb
Port Jersey Railroad Company	Robert Bailey
Port Royal Railroad	W.D. McDaniel

Port Terminal Railroad	W.D. McDaniel
Port Utilities Commission	W.D. McDaniel
Railroad Switching Service Of Missouri	Jeffery C. Woods
Rarus Railway Company	W.T. McCarthy
Red River Valley And Western RR	Daniel L. Zink
Rochester & Southern Railroad Inc.	John Craft
Rockdale Sandow & Southern RR	Kathy C. Johnston
Sabine River & Northern	David Kleinknecht
Salt Lake City Southern Railroad Co.	Robert M. Frelich, Jr.
Salt Lake Garfield & Western	Don Hogle
San Diego & Imperial Valley Railroad	Robert M. Frelich, Jr.
San Joaquin Valley Railroad Co.	Fred L. Krebs/General Manager
San Manuel Arizona Railroad Co.	Jan Peoble
Santa Maria Valley Railroad Company	Sue J. Sword
Semo Port Railroad	Dave Overby
Sheffield Station Junction Railway	D.J. Roberts
Shenandoah Valley Railroad	Mark Bryant
South Buffalo Railway Company	Matthew Smith
South Carolina Central Railroad, Inc.	Robert M. Frelich, Jr.
South Central Florida Express, Inc.	Sally Conley
South Central Tennessee Railroad	Dale Burlison
St Lawrence & Atlantic Railroad Co.	Charles D. Hunter
St. Maries River Railroad	Gerald Allen
St. Marys Railroad Company	G.L. Allen
Steelton And Highspire Railroad Co.	Matthew Smith
SWKR Operating Company, Inc. DBD San Pedro & Southwestern	Tanya Cooley
Tacoma Municipal Belt Line	Barb Johnston/ Admin. Secretary
Tennessee Southern Railroad Co., Inc.	Tony Brunson
Tennken Railroad Co., Inc.	Henry G. Hohorst
Texas And New Mexico Division - AUNW	Robert M. Frelich, Jr.
Texas And Northern Railway	John W. Wallace
Texas Mexican Railway Company	Zaragoza Solis, III, V-P F&C
Texas North Western Railway Co.	Mike Wilborn
Texas Northeastern Division - MMRR	Robert M. Frelich, Jr.
Texas South - Eastern Railroad	Mike Smith
Tomahawk Railway, Limited Partnership	Susan Klinger
Tulsa - Sapulpa Union Railway Co., L.L.C.	Russel Crosby
Turtle Creek Industrial Railroad Inc.	Wayne Norris
Twin Cities & Western Railroad	Craig Glaeser
Union Railroad Company	John F. Marteeny, Director Acctg.
Utah Railway Company	Harry Swensen
Valdosta Railway, L. P.	Ed Clark
Ventura County Railway Company	Carmen S. Crandall
Virginia Southern Division - NCVA	Robert M. Frelich, Jr.
Warren & Saline River	T.N. York, Jr.
Washington Central Railroad Co.	Todd Leinbach
WCTU Railrway Company	John M. Kieras
West Tennessee Railroad Corp	Henry G. Hohorst
Western Kentucky Railway, L.L.C.	Mike Wheatley
Western Plant Services Inc	Robert F. Schuette
Wichita Tillman & Jackson Railway Co.	Stephanie Corrigan

Willamette Valley Railway Co.
Winchester & Western Railroad
Wisconsin Central Limited
Yorkrail, Inc.

David P. Root
P.M. Williams
Walter C. Kelly
G. Robert Gotwols