

# **The UP/SP Merger: An Assessment of the Impacts on the State of Texas**

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## TABLE OF CONTENT

	Background
	Summary of Findings
Section 1:	Introduction
Section 2:	Summary Report of the Public Hearing Testimony before the Railroad Commission of Texas, January 9-11, 1996
Section 3:	Rail Transportation of Coal for Texas Electric Utilities
Section 4:	Merger Impacts on Chemical and Plastics Industries
Section 5:	Merger Impact on Intermodal Shipments
Section 6:	Mexico
Section 7:	Merger Impacts on Rural Rail Transportation
Section 8:	Merger Impacts on Industrial Development
Section 9:	Regional Impacts from the Proposed UP-SP Merger
Section 10:	Safety
Section 11:	Competition
Section 12:	Southern Pacific Rail Corporation
Section 13:	Recommendations
Appendix A:	Post-Merger “Character of Rivalry” in the Proposed “SOU/UP” Railroad Merger
Appendix B:	Richards Report
Appendix C:	Zlatkovitch Report
Appendix D:	Avera Report
Appendix E:	A Brief Critique of the Perryman Report
Appendix F:	Vitas

## ***Background***

The Union Pacific and Southern Pacific railroads recently submitted an application to the Interstate Commerce Commission, now the Surface Transportation Board (STB) of the United States Department of Transportation, to merge their respective railroads. This application closely follows the recent approval of the merger between the Burlington Northern and Atchison, Topeka and Santa Fe (Santa Fe) railroads. The UP/SP merger would result in the presence of only two major rail carriers west of the Mississippi River.

As a part of the application process, the STB has requested comment from the Chief Executives of states that are served by the merger applicants. In response to this request, Governor George W. Bush requested that the Railroad Commission of Texas (RCT) examine the potential impacts of the proposed merger on Texas businesses and citizens. The Railroad Commission held a series of public hearings in January, 1996 to solicit comment from affected and interested individuals regarding their views on the advantages and disadvantages of the merger. Large participation at the hearings and the credibility of the arguments presented by merger proponents, opponents and those who were undecided -- but with significant concerns -- confirmed the Railroad Commissioners' suspicions that this merger is likely to have major consequences for a number of Texas industries and regions.

In an effort to obtain a dispassionate analysis of the merger's impacts, the Railroad Commission contracted with the Center for Economic Development and Research at the University of North Texas (the Center) to work with RCT staff and other interested state agencies to review the many aspects of the proposed mergers impacts. The Center subsequently subcontracted with several noted experts in rail transportation and related

fields to augment its in-house expertise in transportation and market-competition issues.<sup>1</sup> This report strives to identify the salient issues and to provide useful information to the Commissioners that will assist them in formulating a position and recommendation on the merger to Governor Bush that will reflect the best interests of the State of Texas.

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<sup>1</sup> Professional vitae for the contributing authors of this report are included in Appendix F.

## Summary of Findings

The following summarizes the findings of the principal investigators regarding the potential impacts of the proposed Union Pacific/Southern Pacific merger on the state of Texas. The findings of the component analyses are categorized as either positive, neutral or negative. This is followed by an overall characterization of the merger's impacts.

### Positive Impacts

*Intermodal transportation:* The proposed merger is likely to have a positive impact on the service provided to trailer-on-flat-car (TOFC) and container-on-flat-car (COFC) shippers through improved routes. These improvements will be particularly effective for shipments between Houston or Dallas/Fort Worth and southern California. Since intermodal services are highly competitive with truck transportation, it is unlikely that market consolidation would result in rate increases.

*Capital spending in Texas:* The capital expenditures proposed in the merger application include upgrading tracks in Texas. It is estimated that these expenditures will total \$201.2 million producing one-time economic benefits approaching \$493 million and creating 7,700 direct and indirect temporary jobs.

*Southern Pacific viability:* The Southern Pacific railroad is in poor financial condition. Its ability to continue to access operating capital by selling off non-operating assets is very much in question. Without the proposed merger or infusion of capital from some other source, the carrier's ability to serve its market is likely to decline.

*Safety:* Rail safety is tied to a company's financial health. To the extent the Southern Pacific will have improved access to capital, the carrier will be able to improve maintenance and hasten upgrades of tracks, equipment and rolling stock. In addition, to the extent that the merger may lead to track abandonments now and in the future, the merger would reduce collisions with motor vehicles by virtue of a decline in the number of crossings.

### Neutral Impacts

*Coal/Electric utilities:* Overall, the merger is not expected to have a great impact on the transportation of coal to Texas' electricity generating plants. The one notable exception is the generating plant located at Coleta Creek. This plant's long-sought rate relief will be negated by the proposed merger. Therefore, specific measures are included in the recommendations for this facility.

*Impacts on employment:* Our analysis of the merger's employment impacts suggests that in addition to the 708 job losses in Texas projected by the merger applicants, 583 indirect jobs will be eliminated state-wide. However, a recent agreement with the Southern Pacific's largest operating union provides substantial severance benefits to cushion any layoffs.

### Negative Impacts

*Chemicals and plastics industries:* Rail transportation is vital to the well-being of this industry. The proposed merger will create substantial market concentration in rail services to petro-chemical plants. In some industry subsectors, the merged railroads will control more than 70 percent of the market share. The merger applicants have suggested that this market concentration is negated by the availability of other transportation modes and the possibility of shifting production to other facilities. We reject these claims. Barge transportation is only viable for shipments moving to or near water ports. Moreover, industry trends have shown that shipments are becoming smaller, not larger as would be required for efficient barge transportation. Trucks are also not a viable option because of additional wear on the already-stressed highway infrastructure and the greater probability of hazardous material incidents. Lastly, shifting production away from Texas facilities, with attendant job losses, should not be encouraged. It is likely that rail transportation rates will increase as a result of the proposed merger making Texas products less-competitive.

*Mexico:* The merged railroads will control about 90 percent of all traffic moving to and from Mexico. This level of market concentration cannot be good for promoting trade and the use of rail transportation as an alternative to truck transportation. We also believe that given current traffic patterns, the merger may increase the dominance of Laredo as the premier Texas/Mexican gateway. We suggest that steps be taken to promote the development of other gateways. This may be especially important when consideration is given to the makeup of the proposed concessions in Mexico's rail-privatization effort.

*Rural rail transportation:* Even though the submitted merger application calls for very little rail abandonment, the history of other rail mergers suggest that this merger will likely lead to future abandonments because of the level of parallel routes. Further, it is unclear how service to rural communities will be affected by the proposed directional operations from Houston and San Antonio to St. Louis. Moreover, if the directional operations are abandoned at any time in the future, it seems unlikely that the expense of maintaining both the existing Union Pacific and Southern Pacific routes could be justified.

*Industrial development:* Given that the merger will lower the number of rail competitors from which a potential industrial development could choose, Texas is likely to be less attractive for those industries that depend on rail transportation services. This impact will be particularly hard on lesser-developed areas of the state. The possibility of future rail abandonments will only exacerbate problems for rural industrial development.

*Competition:* We do not believe that workable competition is maintained in markets that move from three competitors to two. History has shown that competitor behavior is unpredictable in a duopoly. In addition, we do not find the proposed agreement between the Union Pacific/Southern Pacific and the Burlington Northern/Santa Fe adequate for guaranteeing competition for those shippers moving from two rail competitors to one.

### Conclusions/Recommendations

On balance, we believe the proposed merger of the Union Pacific and Southern Pacific railroads is likely to have a negative impact on the state of Texas, its communities, and shippers. We therefore recommend that the Railroad Commission support the proposed merger only if there are significant track divestitures along the carriers' parallel routes. We further suggest that proposed and future rail abandonments be allowed only when all tracks and facilities necessary to access existing rail junctions are included. In addition, the Commission should consider the proposal for neutral terminal switching railroads in the state's industrial centers as an adjunct to the recommended divestitures.

The tracks identified for divestiture generally are as follows:

- Southern Pacific - Houston to St. Louis;
- Southern Pacific - Lewisville, AR, to Corsicana, TX;
- Southern Pacific - Dallas and Fort Worth to Houston;
- Southern Pacific - Houston to New Orleans;
- Southern Pacific - Houston to Eagle Pass;
- Southern Pacific - Hearne to Placedo.

## ***Section 1: Introduction***

### *1.1 Rail transportation in Texas*

Texas is currently served by three Class I<sup>1</sup> railroads: the Union Pacific, Southern Pacific and Burlington Northern/Santa Fe.<sup>2</sup> In addition to Class I carriers, Texas is served by 45 smaller carriers who are classified as either switching and terminal companies or local railroads. Texas ranks first in the nation in total miles of rail track and second in total railroad employees.

Chemicals account for almost one-third of the total rail tonnage originated in Texas. Coal is the highest-volume commodity terminating in Texas. Farm products originating in Texas account for less than 10 percent of the originating rail tonnage. However, the volume of farm products terminating in Texas is four times higher than originations. This suggests the close ties between Texas Gulf ports and the nation's grain belt.

### *1.2 The proposed merger*

The Union Pacific railroad has applied to the Surface Transportation Board (STB) of the United States Department of Transportation, formerly the Interstate Commerce Commission,<sup>3</sup> for approval to merge the operations of their two railroads.<sup>4</sup> The basic

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<sup>1</sup> Class I refers to railroads with \$250 million or more annual revenue for three consecutive years, Class II railroads are \$20 to less than \$250 million, and Class III railroads earn less than \$20 million in annual revenues (1994 criteria).

<sup>2</sup> The Kansas City Southern railroad has trackage rights that allow it to transport export grain from Beaumont to the Port of Houston and serves Dallas to Shreveport.

<sup>3</sup> The Interstate Commerce Commission was consolidated into the Department of Transportation effective January 1, 1996.

rationale is that the merger allows the Union Pacific to fill in its existing route structure and eliminate circuitous routes in order to more effectively compete with the recently merged Burlington Northern/Santa Fe. However, the merger is considered to be largely parallel in that the Union Pacific and Southern Pacific currently serve many of the same markets. Industrial facilities that are currently served both the Union Pacific and Southern Pacific would lose access to competitive rail service. In the broader sense, the United States west of the Mississippi River will go from being served by three major rail carriers to two.

To address the potential anti-competitive results of the loss of access to more than one rail carrier, the merging railroads have signed an agreement with the Burlington Northern/Santa Fe railroad.<sup>5</sup> The agreement calls a series of contracts, to be completed by early June 1996, that purportedly will address the competition-reducing effects of the proposed merger.<sup>6</sup>

The STB will consider the impact of the merger on competition and the public good. In response to the merger application the STB can choose among four major alternatives:

1. Approve the entire merger and the agreement;
2. Reject the entire merger;
3. Approve the merger, but require the divestiture of portions of SP to other than BN/SF;

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<sup>4</sup> The merger application is contained in Docket No. 32760 submitted to the Interstate Commerce Commission on November 30, 1995.

<sup>5</sup> This agreement, signed on September 25, 1995 and updated on November 18, 1995, is referred to as "the agreement" or "BNSF-1" throughout this report.

<sup>6</sup> BNSF-1 is considered in several of the following sections. The most thorough review is included in Section 11 - Competition.

4. Approve the merger, but impose conditions which would effectively ameliorate the anti-competitive aspects of the merger.

### *1.3 The report*

In the pages that follow, we have addressed a number of issues that together give an indication of how the proposed merger will affect Texas businesses and citizens. Among the issues considered are the merger's impacts on coal and chemical/plastics transportation, the use of rail-truck intermodal transportation, transportation to and from Mexico, the impacts on rural rail service, rail and public safety issues, and the overall impact of the merger on industrial development prospects in Texas. In addition, we evaluate the survivability of the comparatively weak Southern Pacific in the event the merger is disallowed. The report concludes with a recommendation for consideration by the Railroad Commissioners.<sup>7</sup>

Where the evidence is inconclusive and the credible opinion of experts remains divided, we have attempted to suggest positions that minimize potential risks to Texas businesses and citizens. This is not an indictment of the integrity of those who differ with our views, but rather it is an acknowledgment that the potential impacts of this merger, be they advantageous or deleterious, will affect Texas and its citizens for many decades to come.

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<sup>7</sup> The conclusions and recommendations in this analysis reflect the opinions of the principal investigators.

***Section 2: Summary Report on the  
Public Hearing Testimony before the Railroad Commission of Texas  
January 9-11, 1996***

Regarding Union Pacific Corporation's proposed acquisition of the Southern Pacific Transportation Co., public hearing testimony was held before the Railroad Commission of Texas on January 9-11, 1996. These hearings took place in three Texas cities: Fort Worth, Corpus Christi and Houston, in order to discuss concerns regarding the proposed UP/SP merger.

In total, 139 presentations were given by various representatives of interested parties over the three days. Forty-four percent of the speakers relayed total support for the merger, 27 percent expressed concerns, 23 percent were in total opposition and the remaining 6 percent expressed no position. Percentages were similar among the three individual cities with no more than a 5 percent variance in any endorsement category.

Twelve railroad companies or rail districts were represented in the public hearings including the UP and SP, their endorsements/objections are as follows:

**Table 2.1  
Railroad Corporations and Positions**

<b>Railroad Corporation</b>	<b>Position</b>	<b>Comments</b>
Burlington Northern/Santa Fe	Neutral	Support BN/SF settlement agreement. Offered to supply commission with additional info.
Kansas City Southern	Opposition	UP/SP will dominate petroleum shipping and Mexican Gateways
Texas and Mexican Railway	Opposition	UP/SP will have 90% of traffic to and from Mexico
Southern Orient	Opposition	Merger reduces rail competition, supports Texas Rail Link
Houston & Gulf Coast	Support	Questions connectivity with railroads other than UP & BNSF
Consolidated Rail	Opposition	Reduced competition, Conrail wants to invest heavily to compete in TX
Skyeagle	Concerns	Questions impact on Tex-Mex RR, Skyeagle's only connection
South TX Rural Rail District	Concerns	Concerned about merger impact on Alamo-Goliad rail project
Angelina & Neches River	Supports	SP is sole connection
Brownsville & Rio Grande	Supports	Wants assurance of fulfillment of SP's contract on Port of Brownsville's \$30 million rail relocation project

**Table 2.2**  
**State Legislators Positions and Testimonies**

<b>State Representative</b>	<b>City/District</b>	<b>Position</b>	<b>Comments</b>
Christine Hernandez	San Antonio/124	Concerns	Concerned about competition and effect on highways
Hugo Berlanga	Corpus Christi/34	Opposition	Reduced competition, shipping rate increases for coal
Sen. Frank Madla	San Antonio	Concerns	Monopoly threat destructive to agri., petrochemicals and manufactured goods
Bill Carter	Fort Worth/91	Supports	Improved efficiency and competition
Carolyn Park	Bedford/92	Supports	Benefits to area and increased competition w/BNSF
Bob Hunter	Austin/71	Supports	Lower costs to shippers and better service
John R. Cook	Eberbridge/60	Concerns	Preservation of competition essential for growth
Kent Grusendorf	Arlington/94	Supports	Beneficial to area, merger is a property rights issue
Robert Junell	San Angelo/72	Opposition	Merger is anti-competitive, BNSF trackage rights not sufficient for future growth, UP/SP will dominate petro and Mexican traffic
Stephen E. Ogden	College Station/14	Concerns	Concerned that Bryan/College Station line will be abandoned post-merger
Tom Ramsay	Mt. Vernon/2	Opposition	Concerned about abandonment and short line access
Beverly Wooley	Houston/136	Opposition	Fears monopoly power, wants preservation of rail choices for shippers
Garnet F. Coleman	Houston/147	Opposition	Fears monopoly power, job loss, increased consumer costs
U.S. Rep. Gene Green	na/29th	Concerns	Fears limited access to rail service, job loss and impact on Port of Houston
Gerard Torres	Jacinto City/143	Concerns	Potential job loss, anti-competitiveness, impact of military shipments through gulf
U.S. Rep. Jim Chapman	na/1st	Concerns	Monopoly concerns, economic health of E. Texas, Vulnerability of rural areas
Ken Yarbrough	Houston/138	Opposition	Job loss and impact on rural areas
Patricia Gray	Galveston/23	Concerns	Impact on Texas City, Galveston ports, Mexican gateway access
Robert M. Saunders	Austin/28	Concerns	Job loss in Smithville, accessibility for rice and coal shippers in Colorado Co.
Talmadge Heflin	Houston/149	Supports	Unless merger won't withstand anti-trust scrutiny

Shippers and unions in Texas and Mexico are concerned with issues about poor trackage rights and service quality, increased shipping rates, job losses and anti-competitiveness in the marketplace. Shippers and unions that submitted testimony that oppose the merger include:

**Table 2.3**  
**Opposing Organizations Positions and Testimonies**

<b>State</b>	<b>Shipper or Union</b>	<b>Comments</b>
Texas	Transportation Communications Union	Employment for small shippers
	American Maize	Anti-competitive impacts on freight rates and grain rail service
	Barr Iron and Metal	Fear impact on Tex- Mex Railway service to small businesses
	Denver Railway Car	Oppose unless third party open access given on redundant lines
	Brotherhood Locomotive Engineers	None
	E.P.I.C.	Oppose due to UP's post UP/CNW merger service
	Texas Farm Bureau	Oppose due to reduced competition which causes higher transport costs. Bad for agriculture in general
	Texas Agriculture Coop. Council	Oppose due to reduced rail competition, Merger will negatively impact agriculture overall
	City of Laredo	Need assurance that competitive options will be exercised
	Enterprise Products	No competition at Mt. Belieu

Shippers that support the merger for reasons of better accessibility and efficiency, increased competition and growth opportunity into Mexican markets include:

**Table 2.4  
Supporting Shippers Positions and Testimonies**

<b>Country</b>	<b>Shipper</b>	<b>Comments</b>
Mexico	Ferranti Packard de Mexico	Better more efficient routes
	Gimerpo, S.A. de C.V.	Improved service, direct lines
	Smurfit Carton y Papel de Mexico	Eliminates switching charges, improved equipment utilization
	Grupo Mexico	Faster, more reliable service
	Deacero, S.A. de C.V.	Reduced transit delays at border
	Productoro de Papel	More efficient routes, service and rates
U.S	Reynolds Metal	Supports, wants BNSF competition
	Southern Clay Products	Improved service and facilities
	Arizona Grain	Improved competition
	Ray West Warehouses	Supports, if no harm to Tex-Mex railway
	Commercial Metals	Supports, fears trackage rights will not lead to competition
	NCH	Benefits local business with single line service, reduced traffic
	Chaparral Steel	Better access to customers via single line service
	American Swing	Supports due to UP's increased financial strength, benefiting shippers
	El Dorado Chemical	Improved service on SP, new business opportunities
	Rexene	Increased rail traffic through Odessa, West Texas
	Wil-Gro Fertilizer	New business opportunities
	Pioneer Chlor Alkali	Improved service by SP
	Exxon Chemical	Better alternative to splitting SP, still have strong rail competition
	Coors Brewing	Improved service

Many organizations expressed moderate to grave concerns about the potential impacts of the proposed merger. Their comments are included in Table 2.5.

**Table 2.5  
Organizations Expressing Concerns**

<b>Organization</b>	<b>Comments</b>
Global Grain Co.	Concerned about post-merger effects on S. Tx grain producers and Tex- Railroad
Corpus Christi Grain Co.	Concerned about S. Tx. grain shippers and effects on Tex- Mex RR access to Houston
Farrell Cooper Mining Co.	Supports Tex- Mex link to Houston- Beaumont
Gulf Compress	Wants assurance that Tex- Mex obtains trackage rights to link with KCS
Harlingen Chamber of Commerce	Competition concerns, Need another Class I Railroad in Valley
Greater Corpus Christi Business Alliance	Wants third Class I Railroad to service Corpus Christi and South Tx., Assurance of BNSF competition
Wright Materials	Fears harm to Tex-.Mex Railroad
Central and Southwest	Competition concerns for Tx. and West Coal, needs alternative coal delivery options
Brownsville Navigation	Feels BNSF must have direct access to Brownsville, Fears high switching charges between Laredo & Brownsville from lack of competition
Frank Bailey Grain Co.	Supports survival of Tex- Mex RR and another Class I RR access to Corpus Christi and Laredo
International Trade and Transport	Importance of long- term importance of competitive access between Tx. and Mexico
Fina Oil and Chemical	Wants competitive Gulf petrochemical access, feels trackage rights not a viable solution
Brazos County	Fears post- merger abandonment in Brazos Co.
TMM- Mexico	Afraid rail rates and goods prices increase due to lack of competition in Tx. and Mexico
Shell Chemical	Competition concerns, UP/SP combined haul 70% of Shell's chemicals
Vista Chemical	Fears fewer railroads lead to higher rates, poorer service and less access to legitimate chemical transport
Huntsman Corporation	Merger will increase rates, cause poor service. Feels trackage rights not viable alternative
Society of the Plastics Industry	Fears lack of competition for plastics transport. UP/SP haul 70% of US polyethylene and 60% polypropylene
Dow Chemical	Feels merger creates competitive disadvantages, need third Class I Railroad access
City of Smithville	Expected loss of 61 jobs in Smithville with indirect loss of \$11.1 million/ year

### ***Section 3: Rail Transportation of Coal for Texas Electric Utilities<sup>1</sup>***

#### *3.1 Summary*

Ten Texas electric utilities are potentially affected by the proposed merger. Only one plant, the Fayette Power Project jointly owned by LCRA and City of Austin, clearly benefits from the merger: The trackage rights agreement between UP/SP and BN/SF would provide the Fayette Power Project with alternative railway service at more competitive rates than it enjoys under its current contracts. The bulk of the utilities would not be directly affected: Houston Lighting & Power, Southwestern Electric Power, Southwestern Public Service, Texas Municipal Power Agency, Texas Utilities Electric, and West Texas Utilities would either continue as captive shippers or continue to enjoy their current access to competing railroad service. Another two utilities, City Public Service of San Antonio and Gulf States Utilities, would continue to have access to competing railroad service but are ambivalent about the merger. San Antonio has not decided whether the trackage rights agreements provides it adequate protection. Gulf States does not oppose the merger.

The remaining utility in the group, Central Power and Light (CPL), is adversely affected because it loses potential access to competitive service for its Coletto Creek plant. A relatively minor modification to the trackage rights agreement would preserve CPL's option at the plant.

Support for the merger should therefore be conditioned on the railroads' agreeing to amending the trackage rights agreement to maintain the status quo for CPL and Coletto

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<sup>1</sup> This section was prepared by Dr. William Avera and Dr. Charles Smaistrila.

Creek. Assuming that the trackage rights agreement were so amended, the proposed merger's effect on coal transportation market provides little basis for deciding whether it is detrimental or beneficial to Texas energy consumers.

### 3.2 *Background*

Railroads' coal transportation rates have been a controversial issue in Texas for over 20 years. For one thing, Texas depends on coal for a substantial portion of its power supply. For another, the cost of transporting coal often constitutes the bulk of its total cost.<sup>2</sup>

In 1994, roughly 95 million tons of coal were delivered in Texas, making it the leading coal consuming state in the country. (See Table 3.1.) Over 95 percent of the coal was used to fire the generators of the state's electric utilities. All told, the electric utilities paid \$1.6 billion for the coal, or about 34 percent of their total fuel bill. On average, the cost of coal was \$1.31 per MMBtu, significantly lower than the \$2.15 per MMBtu paid for natural gas.

Utilities in Texas burn two types of coal: lignite and Western. Because of its low Btu content -- only about 6,000 Btu per pound -- all nine lignite-fired plants in Texas are located near the mine mouth. These plants accounted for about 45 percent of the state's coal-fired generation in 1994. The cost of the lignite in 1994 for these plants averaged about \$1.02 per MMBtu. By comparison, western coal cost nearly 50 percent more, or \$1.52 per MMBtu.

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<sup>2</sup> An excellent analysis of the issues related to transporting coal to Texas electric utilities appears in Stan Kaplan, "Rail Transportation of Coal to Texas," Public Utility Commission of Texas Working Paper No. 85-5 (1985).

Western coal originates from either the mountain state deposits in Colorado and New Mexico or the Powder River Basin (PRB) deposits of Wyoming and Montana. Of the two, Mountain coal is the higher grade with about 10,000 to 11,500 Btu per pound. It is considerably more expensive to mine, however, and current contract quotes are as high as to \$15.75 per ton at the mine mouth.<sup>3</sup> The lower grade PRB coal has only 8,000 to 9,000 Btu per pound and can be cheaply produced from surface mines with low mining costs. Mine prices for PRB coal have declined considerably over the last decade because of overcapacity, and the coal is currently sold under contract for as little as \$3.30 and up to \$6.25 per ton at the mine mouth. With the fuel's attractive cost and environmental qualities, the PRB has become the pre-eminent supplier of coal to utility plants in the country.

Table 3.2 lists the 14 generating stations serving Texas that are either currently fired by Western coal or are in the process of being modified to burn Western coal. The total Texas-owned capacity of the plants is nearly 12,400 MW and represents 19 percent of the generating capacity of the state's utility-owned generating capacity. Because of the low fuel cost and operating characteristics of the coal plants, the utilities relied on them to produce 42 percent of their power in 1994.

Ideally, the Western coal-fired plants would have been located at a junction of two or more railroads that could deliver the coal to it. Unfortunately, railroad siting considerations more often than not must give way to other operational factors such as the availability of water and the constraints of the bulk power transmission system. As a result, few coal-fired generating plants across the country are served by more than one

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<sup>3</sup> Current quotes for coal are from Coal Week (Jan. 22, 1996).

railroad. In this regard, the experience of Texas utilities is consistent with those elsewhere: Of the 10 railroad served power plants listed in Table 3.3, only four have access to two or more competing railroads.

As a result, the cost of transporting PRB coal to Texas can be several times the price of the coal at the mine mouth. Table 3.3 lists the 10 plants serving Texas that receive coal by rail and sets forth estimates of the cost of coal and rail transportation for each plant in 1993.<sup>4</sup> Although fuel and rail transportation contracts are normally kept confidential, estimated rates are available from industry analysts.<sup>5</sup> According to the data in Table 3.3, PRB coal was delivered to the plants for prices ranging between \$19.91 and \$36.81 per ton. Of the total amount paid for PRB coal, anywhere from \$12.89 to \$20.40 was paid for transporting it to the plant. In other words, out of a one-year fuel bill totaling nearly \$1.2 billion, the railroads claimed over \$800,000, or 59 percent. Needless to say, the high cost of transporting the PRB coal relative to its mine mouth cost has produced contentious proceedings in fuel cost reviews at the Texas PUC.

### *3.3 The Significance of Product Competition in Assessing Railroad Mergers*

Coal transportation is a significant source of revenue for the Southern Pacific and other Western railroads as a result of the large number of Western coal-fired generating

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<sup>4</sup> The data do not include spot purchases of coal.

<sup>5</sup> Except where noted otherwise, the rail rates quoted in this study were obtained from Coal Transportation Report, a widely used industry publication. Recent rail rate estimates are not available from CTR for GSU's Nelson plant or for SWEPSCO's Flint Creek and Welsh plants. For this report, the given estimated rail rates for these three plants were calculated from the publicly reported delivered cost of coal, assuming that the coal was purchased at the weighted-average FOB mine contract price reported in CTR for other Texas utilities in 1993.

facilities built by electric utilities in the last 25 years. Because of its bulk and the long distances the coal must be moved, rail transportation does not encounter significant intermodal competition for electric plants. Highway transport is generally not cost-competitive and is infeasible for the quantities required to fuel large modern coal-fired generating units.<sup>6</sup> Other modes of transportation such as slurry pipeline and conveyors have typically been used only in the vicinity of the mines. By the same token, in those few situations with access to coal carriage by water, the low cost of water transportation renders the railroads uncompetitive.

By contrast, product market competition for coal transport has generally been recognized by the courts and regulatory agencies as a potent competitive factor in coal transportation for electric utilities. Western coal is just one of several available fuels for generating electricity. While the cost of producing coal at the mine mouth in the Powder River Basin of Wyoming and Montana is relatively low compared with many other potential boiler fuels, other fuels enjoy environmental, efficiency, and locational advantages over Western coal. And once the energy from a fuel is converted into electricity, it is perfectly substitutable for electricity generated from any other fuel source. Thus, each boiler fuel competes with all other boiler fuels, and the electricity generated at any particular site can be transmitted (*i.e.*, “wheeled”) over the power grid at the speed of light to customers several states away.

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<sup>6</sup> Simple arithmetic demonstrates the impracticality of shipping coal any significant distance by truck. In 1994, for example, the coal deliveries to generating plants serving Texas ranged from 1.7 million tons (Flint Creek) to 10.5 million tons (Parish). Thus, at 25 tons per truckload, it would have required 67,280 truckloads to move the year’s supply of coal a distance of over 1,000 miles to the Flint Creek. Operating around the clock between the Powder River Basin and Flint Creek, trucks would arrive at the plant at the rate of about one every eight minutes.

For most electric utilities, competition from alternative fuels is recognized as an effective constraint on the cost of coal transportation. The particular circumstances of a specific plant may, of course, render it an exception to the general effectiveness of product competition. For example, railroad industry analyst Burton M. Strauss, Jr., CFA, Senior Vice President with Lehman Brothers, pointed out that, notwithstanding the absence of intermodal competition, the availability of other fuel sources constrains coal transportation costs.<sup>7</sup> As support, Strauss observed that in 1989, the 1.4 billion tons of coal moved by the railroads represented 39.3 percent of the total tonnage transported by rail, but only 22.4 percent of total railroad revenues. Given that much of the coal can be moved only by rail and that most power plants have access to only one railroad, it is apparent that product competition -- from alternative fuel sources at other power plants -- must play an important role in constraining the amount the railroads charge for moving coal.

In Texas as well as other states, natural gas-fired generation represents a growing proportion of the state's total generating capacity and provides critical product competition for other generation fuels. A proper assessment of the implications of the UP/SP merger for coal transportation to Texas can be made only with an understanding of how natural gas has become the most important competitor with coal-fired generation. See Table 3.4 below.

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<sup>7</sup> "Understanding Railroad Industry Basics," in Association for Investment, Management and Research, *The Transportation Industry—Airlines, Trucking, and Railroads* (1991).

### 3.4 *Texas Coal-Fired Plants Potentially Affected by the UP/SP Merger*

Two of the plants would be largely unaffected by the UP/SP merger because they are not served by railroads. Four Corners, in which El Paso Electric is a joint owner, is a mine mouth operation located in the San Juan Basin coal region in New Mexico. Big Cajun No. 2, jointly owned by Gulf States Utilities, burns PRB coal delivered by river barge.

*Central and South West Corp. (CSW).* -- Three CSW subsidiaries operate in Texas: Central Power and Light (CPL), Southwestern Electric Power (SWEPCO), and West Texas Utilities (WTU). They operate four Western coal-fired plants. CPL's Coletto Creek generating station, located near Victoria, is the only plant that is directly affected by the proposed merger.

Unlike the other Western coal-fired plants in Texas, Coletto Creek was designed to burn primarily Colorado coal.<sup>8</sup> The Coletto Creek plant received 1.8 million tons of coal in 1994, almost all of which was from Colowyo Coal Co. in Colorado, which is the plant's only contract coal supplier. The high delivered cost of coal for the plant reflects both the higher cost of Colorado mountain coal and the highest cost of rail transportation to any plant in Texas. In 1993, the estimated rate for the 1,377-mile haul was about \$27 per ton, or 19.5 mills/ton-mile. Part of the high rail rate can be explained by the more expensive route the coal must take over the Rocky Mountains.

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<sup>8</sup> Coletto Creek has also imported South American coal through the port in Corpus Christi. In 1994, the plant received nearly 152,000 tons of Colombian coal at an average delivered cost of \$35.51 per ton, or 148.9 cents per MMBtu.

Denver & Rio Grande Western Railroad originates the coal from the Colowyo mine. BN/SF serves as a bridge carrier between Colorado and Fort Worth, where the move is handed off to the SP for delivery. SP is the only railroad currently serving the plant.

CPL has recently taken several steps to take advantage of the lower prices for PRB coal and to obtain access to competitive sources of fuel for the Coletto Creek plant. One, the company has invested \$17 million in a fuel blending facility that enables the plant to burn the lower grade PRB coal in combination with the Colorado coal. The plant will begin burning the blended coal this year. CPL hoped to obtain competitive benefits by creating the option to burn either mountain coal or PRB coal. And the leverage would work against both the coal mines and the railroads because the company could contract with UP, in addition to BN/SF and SP, to move the PRB coal.

Unfortunately, CPL's leverage against the railroads is limited by SP's control of the 15 miles of track that separates the plant and a UP interchange point in Victoria. Unable to obtain a short-haul rate from SP for tonnage delivered by the UP, CPL filed an application with the ICC (now STB) to obtain a short-haul tariff. The STB's jurisdiction to grant such a rate depends on a finding that SP has market dominance over shipments to Coletto Creek. CPL's petition, which has been pending for about two years, is the company's only realistic hope of having competing carriers delivering to Coletto Creek.<sup>9</sup>

The prospect of the UP/SP merger largely nullifies the advantages derivable from both the fuel blending facility and the short-haul tariff. The UP/SP would control originating access to Colorado coal at both the origination and destination. Moreover,

UP/SP would not be inclined to bid aggressively to move PRB coal, for its bids on moves from the PRB would compete with its movements of Colorado coal -- for which it apparently commands a premium rate. Without effective competition, CPL can expect to continue to pay a premium for fuel delivered to Coletto Creek.

The trackage rights agreement between UP/SP and BN/SF does not relieve CPL's problem. BN/SF would obtain overhead trackage rights over the existing UP line running from Houston to South Texas that passes within 17 miles of Coletto Creek. Without a right to stop at the interchange point in Victoria, the proximity of BN/SF trains is of no help to CPL.

A strong argument can be made under the circumstances that granting such an interchange to BN/SF at Victoria is necessary to keep CPL whole. CPL currently has at least the potential to eventually obtain access to a competing railroad, either by virtue of the STB case or a build out. The merger -- as it is currently structured -- would foreclose that option for the foreseeable future. Making Victoria an interchange for BN/SF would thus maintain the status quo. Finally, there is much at stake for the South Texas ratepayers of CPL: If rail competition for hauling PRB coal to Coletto Creek simply brought down the rail rate to the average amount charged for PRB coal -- \$11.76 per ton - - the cost of transporting its 1994 tonnage would have been nearly \$88 million less.

With respect to other CSW company plants, as noted above, the proposed merger would not have any direct effects. SWEPCO has two western coal-fired units: The Flint Creek plant in Arkansas, served by solely KCS, received nearly 1.7 million tons of PRB coal in 1994. The estimated 1989 rail rate was roughly \$15 per ton, or about 14 mills/ton-

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<sup>9</sup> Even though the plant is only 15 miles from the UP, a build out would be problematic because of

mile. The Welsh plant in northeast Texas received nearly 5.2 million tons of coal from the PRB in 1994. It is served solely by BN/SF, and the estimated rail rate for 1993 was roughly \$18 per ton. Neither plant has service from either UP or SP.

The same is true for WTU's Oklaunion plant, which is served only by BN/SF. Oklaunion received over 3.0 million tons in 1994. The coal is hauled about 1,165 miles from the PRB to the plant site near the Red River. The 1993 estimated rail rate for the move was \$13.85 per ton, or about 11.9 mills/ton-mile.

*City Public Service of San Antonio (CPS).* -- CPS generates about half of its electricity at two PRB coal-fired plants, Deely and Spruce, located near Elmendorf. CPS received about 4.6 million tons of coal for these plants in 1994.

The coal is delivered by the UP in a direct haul over SP tracks into the plants under a contract that extends to 2005. The estimated rate in 1993 for the 1,575 miles from the PRB was about \$15 per ton, or 10 mills/ton-mile. Since the merger would eliminate competition between UP and SP for delivery to the plants, the railroads have agreed to grant trackage rights to BN/SF.

The trackage rights agreement does not, however, completely ameliorate CPS's concerns, and the utility is in discussions with UP to determine exactly what its situation would be if the merger were approved. CPS was initially concerned because Elmendorf does not expressly appear in the trackage rights that would be granted to BN/SF. However, UP has stated that the trackage rights will be amended to expressly provide for service to Elmendorf. As a remaining concern, CPS does not have assurance that the rate

for using the trackage rights will in fact be adjusted to reflect expected declining costs of service.

*Gulf States Utilities (GSU).* -- GSU has ownership interests in two PRB coal-fired plants in Louisiana. Big Cajun No. 2 is served by barge and is not affected by the merger. At the Nelson plant, GSU is currently served by Kansas City Southern, which delivers coal originated by BN/SF.

GSU is in the process of constructing a four-mile spur from Nelson to a SP line to provide competitive access to the plant. Without the merger, GSU could receive coal over four primary routes: (1) BN/SF -- KCS; (2) UP -- KCS; (3) BN/SF -- SP; and (4) UP -- SP. The merger would effectively reduce these options to just two: BN/SF -- KCS and single-line service by the UP. It is unlikely that UP/SP would bid aggressively for splitting the service with KCS or BN/SF, because that would reduce its chances of getting the entire move. Even so, GSU is not necessarily harmed by the merger; one benefit would be the prospect of single-line service for the entire move from the mine to Nelson.

GSU has intervened in the merger application pending before the Surface Transportation Board. Because it is still assessing the implications of the merger, it has not formally opposed the application.

*Houston Lighting & Power (HL&P).* -- About 55 percent of the 19.1 million tons of coal received by HL&P in 1994 was delivered to Parish generating station near Houston. All of the coal for Parish is moved by BN/SF over single-line service from the PRB. The 1993 estimated rate for all PRB coal moves to Parish was about \$20 per ton, or roughly 13 mills/ton-mile.

To get the benefits of competitive service from an alternative railroad, HL&P is currently constructing a spur from the plant to a UP line. The merger would apparently not have any direct adverse effects on the benefits from the spur.

*Lower Colorado River Authority (LCRA)*. -- LCRA is joint owner, along with the City of Austin, of the Fayette Power Project. The plant received roughly 6.3 million tons of coal in 1994 from the PRB.

The UP delivers the coal to Fayette as the only railroad with access to the plant. The estimated rate in 1993 for the 1,500-mile hauls was about \$16 per ton, or roughly 11 mills/ton-mile. In 1988, as part of the settlement of an ICC case brought against UP, LCRA/Austin obtained trackage rights over 22 miles of UP track connecting the plant to SP. These rights become effective in 1999 at the end of the current rail contract, so that LCRA/Austin would get the benefits of competitive service to Fayette.

Realizing that the merger would nullify the trackage rights owned by LCRA/Austin, UP granted trackage rights to BN/SF under the trackage rights agreement. LCRA initially expressed strong concerns that the trackage rights to BN/SF would not sufficiently protect the utility's position when its current rail transportation expires in 1998. After further review of the trackage rights agreement, however, LCRA has concluded that the agreement would make BN/SF more competitive with UP than the SP would be under the existing trackage rights. Since the trackage rights agreement would put it in a better position to negotiate rail transportation rates, LCRA now considers the merger to be procompetitive with respect to the Fayette Power Project.<sup>10</sup>

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<sup>10</sup> LCRA's main concern about the merger is its effect on the local economy: A crew change station located in Smithville, one of LCRA's wholesale customers, would apparently be shut down, with a loss of 61 jobs.

*Southwestern Public Service (SPS)*. -- Neither of SPS's coal-fired plants would be directly affected by the proposed merger. BN/SF originates PRB coal for both plants.

For the Harrington plant near Amarillo, BN/SF moves the coal about 895 miles as the sole carrier. In 1994, the plant received about 4.4 million tons of coal. The estimated rate in 1993 was \$14.70 per ton, or about 16.5 mill/ton-mile. In the BN/SF merger last year, SP was granted trackage rights over the BN/SF line with a delivery point at Harrington, so the plant receives competitive rail service.

BN/SF is the sole railroad serving the Tolk station. In 1994, the railroad delivered about 4.0 million tons of coal to Tolk. The estimated 1993 rail rate for the 1,005-mile haul was \$17.65 per ton, or 17.6 mill/ton-mile. SP has overhead trackage rights on the line, but since the plant is not a delivery point, SP cannot provide competing service to it. SPS unsuccessfully sought a delivery point for the SP in the BN/SF merger case before the ICC. Because there has been no competing railroad at Tolk, the proposed merger does not create an argument for granting the UP/SP a delivery point there.

*Texas Municipal Power Agency (TMPA).* -- TMPA's Gibbons Creek plant has operated since 1982 with a lignite-fired boiler. Last year, however, TMPA conducted a flawless test burn that determined it is feasible to use PRB coal in the plant with only minor modifications. The plant is expected to consume 1.8 to 2.1 million tons of PRB coal annually.

The conversion to PRB coal from lignite was based on economics. The lignite at the plant is the lowest quality lignite currently used by a utility at about 4,700 Btu per pound and 1.5 percent sulfur. By switching to PRB coal, TMPA will eliminate the need to operate the plant's pulverizers and scrubbers, considerably increasing the net

megawatts obtained. TMPA estimates that the conversion will lower its total costs more than 20 percent.<sup>11</sup>

TMPA plans to begin receiving PRB coal this month and switch the plant to the new fuel in April. TMPA has negotiated a contract with BN/SF to move the coal from the PRB. Gibbons Creek is connected to the BN/SF by a spur that has been used to deliver limestone for the plant's scrubber. Alternatively, TMPA was considering building a spur to the SP line west of the plant, and discussed the possibility of service with UP, which has trackage rights along the line. No agreement was reached with UP, but the build out to the west remains an option.

The proposed UP/SP merger would theoretically reduce the number of competing railroads from three to two. However, SP could not provide the single-line service from the PRB that UP and BN/SF can offer, and it is unlikely that either of them would bid for a partial haul that would enable SP to deliver to Gibbons Creek. Under the circumstances, TMPA does not feel threatened by the proposed UP/SP merger.

*Texas Utilities Electric.* -- TU Electric does not currently receive Western coal at any of its four coal-fired plants. Last year, however, the company successfully conducted test burns of PRB coal at three of its plants: Monticello, Big Brown, and Martin Lake. In 1994, the three plants consumed over 25 million tons of lignite.

TU Electric has contracted to burn 0.5 million tons of PRB coal this year at the Monticello plant in northeast Texas. The company has no commitments for Western coal

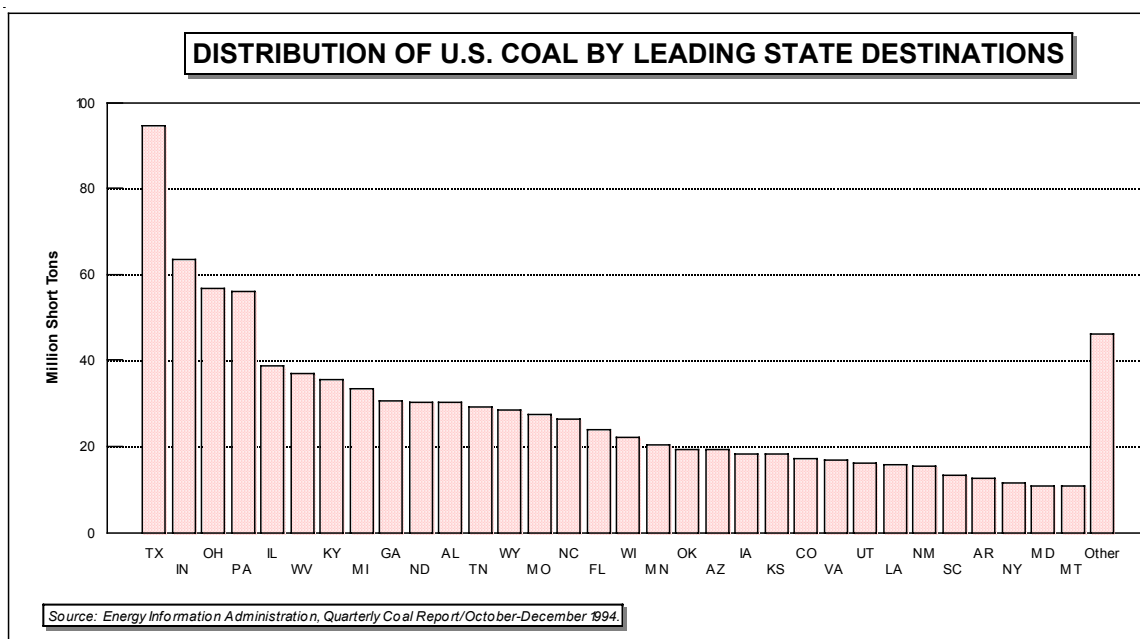
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<sup>11</sup> A portion of the cost reduction will come from the extra net power obtained by eliminating the plant's four pulverizers and bypassing the scrubbers. In addition, by closing down the lignite mine field and simplifying operations at the plant, TMPA will reduce the number of personnel required by over 240 people.

beyond 1996. As with TMPA, TU Electric's consideration of PRB is driven by the economics presented by the recent decline in the cost of the Western coal.

Monticello is connected by a TU Electric-owned spur to Kansas City Southern and BN/SF and can be connected to UP. TU Electric has not yet contracted for rail transportation of the PRB coal to the plant. The other two plants, Big Brown and Martin Lake, would also have access to both BN/SF and UP/SP (assuming approval of the merger and a decision to burn PRB coal at the plants). As a result, TU Electric does not expect to be adversely affected by the proposed merger.

**Table 3.1**



**Table 3.2**  
**Western Coal-Fired Plants Serving Texas**

Operating Utility	Plant	County	Net Summer Capacity (MW)	Year of Initial Operation	Texas Joint Owners	Texas-Owned Capacity (MW)	Coal Grade	Origin	1994 Receipts (1,000 tons)	1994 Ave. Delivered Cost/ton	Delivering Railroad	Competing Railroad
Arizona Public Service	Four Corners	San Juan, NM	743	1969	EPEC:	104	Bit	New Mex.	8,409	\$20.74	--	--
Cajun Electric Power Co-op	Big Cajun II	Pointe Coupee, LA	540	1983	GSU:	227	Sub	PRB	5,795	25.97	--	--
Central Power and Light	Coletto Creek**	Goliad	604	1980	--	604	Bit	Colorado	1,818	42.35	SP	--
							Sub	PRB	--	--	UP	--
City Public Service	Deely/Spruce	Bexar	1,330	1977	--	1,330	Sub	PRB	4,606	18.98	UP	SP; BNSF*
Gulf States Utilities	Nelson	Calcasieu, LA	550	1982	GSU:	325	Sub	PRB	2,260	27.22	KCS	BNSF; UP; SP
					SRMPA: SRGT:	110 55						
Houston Lighting & Power	Parish	Fort Bend	2,560	1977	--	2,560	Sub	PRB	10,483	31.27	BN/SF	--
Lower Colorado River Auth.	Fayette	Fayette	1,585	1979	LCRA:	1,000	Sub	PRB	6,341	21.42	UP	SP; BN/SF*
					COA:	585						
Southwestern Electric Power	Flint Creek	Benton, AR	480	1978	SWEPSCO:	240	Sub	PRB	1,682	26.14	KCS	--
	Welsh	Titus	1,584	1977	--	1,584	Sub	PRB	5,164	30.64	BN/SF	--
Southwestern Public Service	Harrington	Potter	1,096	1976	--	1,096	Sub	PRB	4,409	26.79	BN/SF	SP
	Tolk	Lamb	1,080	1982	--	1,080	Sub	PRB	3,950	34.64	BN/SF	--
Texas Mun. Power Agency	Gibbons Creek**	Grimes	405	1982	--	405	Lig	--	--	--	--	--
							Sub	PRB	--	--	BNSF	UP; SP
Texas Utilities Electric	Monticello**	Titus	575	1974	--	575	Lig	--	--	--	--	--
							Sub	PRB	--	--	--	KCS; BN/SF
West Texas Utilities	Oklaunion	Wilbarger	665	1986	WTU:	364	Sub	PRB	3,038	23.90	BN/SF	--
					PUB: CPL:	68 52						
Total or Ave.			13,797			12,364			57,955	\$25.42		

\* Carrier will compete for traffic pursuant to the UP/SP and BN/SF settlement.

\*\*Utility has modified or is considering modifying the plant to burn PRB subbituminous coal.

Sources: Public Utility Commission of Texas, "Electric Generating Unit Inventory" (1994); Electric Reliability Council of Texas, Form OE-411 (1995); Southwestern Power Pool, Form OE-411 (1994).

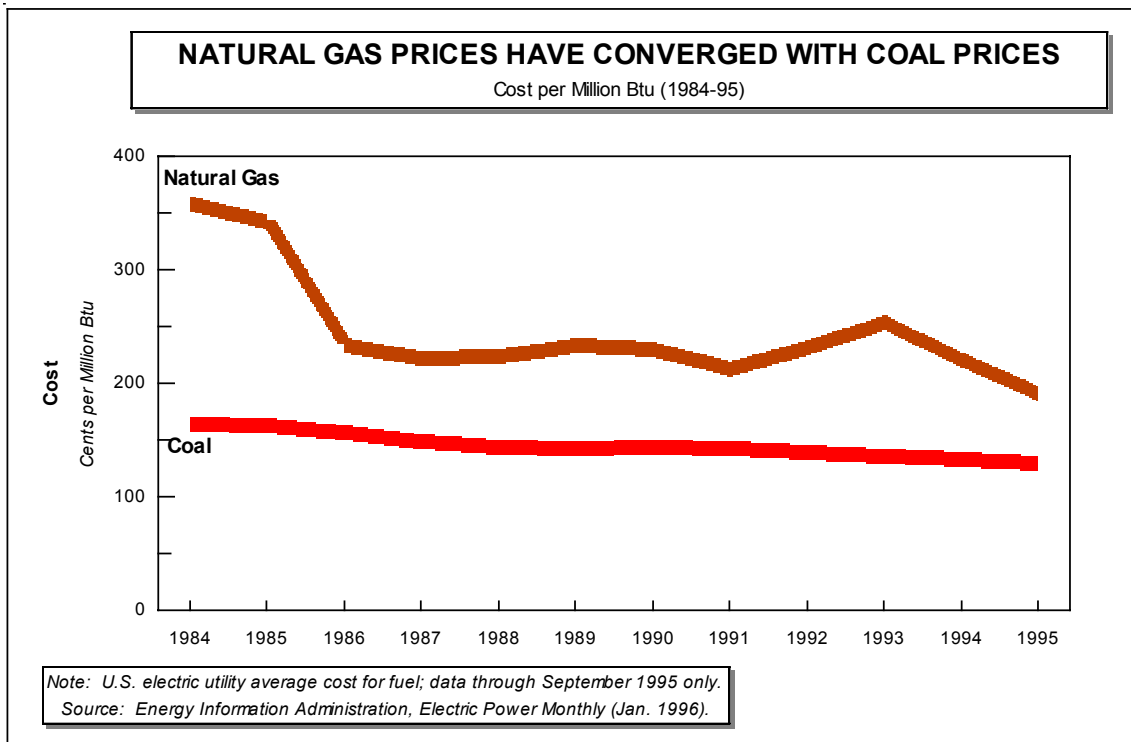
**Table 3.3**  
**Rail Costs for Western Coal-Fired Texas Plants**  
**1993**

Operating Utility	Plant	Delivering Railroad	Receipts (1,000 tons)	Ave. Deliv. Cost/ton	Delivered Cost of Coal	Est. FOB Mine Price	Implied Rail Rate	Transportation Cost	Transportation Cost/Total Cost
Central Power and Light	Coletto Creek	SP	1,208	\$46.66	\$56,365,280	\$19.76	\$26.90	\$32,495,200	58%
City Public Service	Deely/Spruce	UP	5,141	19.91	102,361,456	4.71	15.20	78,143,200	76%
Gulf States Utilities	Nelson*	KCS	2,336	29.60	69,145,600	12.06	17.54	40,974,476	59%
Houston Lighting & Power	Parish	BN/SF	9,653	35.25	340,318,039	14.85	20.40	196,925,280	58%
Lower Colorado River Auth.	Fayette	UP	5,635	21.81	122,884,290	5.56	16.25	91,568,750	75%
Southwestern Electric Power	Flint Creek*	KCS	1,926	24.95	48,053,700	12.06	12.89	24,826,994	52%
	Welsh*	BN/SF	4,490	30.12	135,238,800	12.06	18.06	81,091,392	60%
Southwestern Public Service	Harrington	BN/SF	4,461	27.74	123,748,140	13.04	14.70	65,576,700	53%
	Tolk	BN/SF	3,847	36.81	141,608,070	19.16	17.65	67,899,550	48%
West Texas Utilities	Oklaunion	BN/SF	<u>1,880</u>	29.34	<u>55,159,200</u>	15.49	13.85	<u>26,038,000</u>	47%
Total or Ave.			40,577	29.45	\$1,194,882,575	\$12.06	\$17.39	\$705,539,542	59%

\*FOB mine price is estimated as the average of reported FOB mine prices for Texas plants.  
Source: Coal Transportation Report (Aug. 8, 1994).

						Receipts	FOB Mine Price
City Public Service		49	20.16	983,808	4.96	1,208	19.76
		34	20.16	689,472	4.96	1,055.3	6.88
		3,821	20.21	77,220,389	5.01	6,085.8	15.43
		1,237	18.97	23,467,787	3.77	2,512.1	16.81
Houston Lighting & Power						3,761.0	6.98
		1,055	27.28	28,788,584	6.88	33.0	2.82
		6,086	35.83	218,054,214	15.43	1,841.0	2.70
		2,512	37.21	93,475,241	16.81	48.8	4.96
LCRA						34.2	4.96
		3,761	23.23	87,368,030	6.98	3,820.9	5.01
		33	19.07	629,310	2.82	1,237.1	3.77
		1,841	18.95	34,886,950	2.7	4,461.0	13.04
						3,847.0	19.16
						1,880.0	15.49
				PRB	11.76	Weighted	12.06
				Weighted Ave		Ave.	
				Rail Rate:			

Table 3.4



## ***Section 4: Merger Impacts on Chemical and Plastics Industries***

### *4.1 Introduction*

In this section we review the potential impacts of the Union Pacific/Southern Pacific merger on Texas' chemical and plastics industries. We consider the potential impacts on rail shipping rates as well as the effectiveness of alternative shipping modes to provide cross-modal competition. Although there are differences in their shipping characteristics, we have grouped chemical and plastics shipments together because these industries are primarily located along the Gulf Coast.

### *4.2 The Chemical and Plastics Industry in Texas - an Overview*

As noted in Table 4.1 below, a large percentage of total United States chemical and plastics production in certain industrial classification codes occurs in Texas. Of particular note is in sector 2821 -- Plastics Materials and Resins -- where almost one-third of total shipment-value originates in Texas. Even more impressive is the state's dominance in industrial organic chemicals with 45 percent of total U.S. production. In a broader sense, the Louisiana and Texas Gulf Coast region combine to represent 40.6 percent for plastics, and 59.3 percent for industrial organic chemicals, of total U.S. output. (See Table 4.1.)

The primary reason that the Gulf Coast developed a high concentration of chemical and plastics producers was proximity to petroleum resources in the post-World War II industrial boom. Another important reason at that time was the presence of significant rail transportation infrastructure. Today, the rail infrastructure of tracks, yards

and terminals owned by three major rail carriers insures that the area continues to attract new investment in plastics and chemical manufacturing facilities.

**Table 4.1**  
**Value of Shipments**

SIC Code	Description	U.S. Value Of Shipments (000)	Texas: Value of Shipments (000)	% of U.S. Total	Texas & Louisiana: Value of Shipments (000)	% of U.S. Total
2821	Plastics Materials and Resins	31,303,900	9,861,900	31.5	12,694,500	40.6
2819	Industrial Inorganic Chemicals	18,169,100	1,348,500	7.4	2,273,400	12.5
2869	Industrial Organic Chemicals	54,254,200	24,476,800	45.1	32,155,900	59.3
2879	Agricultural Chemicals	9,151,400	1,157,000	12.6	2,051,050 <sup>1</sup>	22.4
2899	Chemical Preparation	9,965,800	1,149,300	11.5	1,296,700	13.0

Source: *Census of Manufacturers, 1992.*

### 4.3 *Transportation of Plastics and Chemicals*

#### 4.3.1 *Chemicals*

According to statements submitted by the merger applicants,<sup>2</sup> of the total chemical products shipped in the United States, nearly half (48 percent) utilize truck transportation while rail and barge transportation each represent about 23 percent of total tonnage. Modal choice for these shipments is dominated by the shipper's proximity to destination

<sup>1</sup> The Census of Manufactures masks Louisiana's shipments data for this SIC. Figures in this table are estimates by the Center for Economic Development and Research.

<sup>2</sup> Volume 2 (redacted) of the merger application.

with almost half of the chemical tonnage moving less than 200 miles.<sup>3</sup> Rail and barge transportation are used for longer hauls with rail shipments averaging about 1000 miles in 1993. Barge transportation of chemicals originating in Texas is destined to inland water ports in Illinois, Indiana, Ohio, Kentucky and West Virginia.

In 1994, the Union Pacific railroad transported 30.2 percent of all chemical carloads in the United States, up from 28.2 percent the previous year. (See Table 4.2 below.) Combined with the Southern Pacific, the proposed merged railroad will control 41.6 percent of the chemical carload market, more than twice the market share of the next highest competitor, CSX Transportation, with 20.1 percent of the market. The market dominance of the proposed merged railroads is even more pronounced when only the western carriers are considered. Using 1994 data, the Burlington Northern/Santa Fe transported only 13.3 percent of the chemical carload market while the Illinois Central and Kansas City Southern attained only 5.5 percent and 3.9 percent of the market share, respectively.

The chemical market is intensely price competitive. Furthermore, chemical products are undifferentiated (generic) goods with no appreciable brand identity. Therefore, transportation cost and service are critical factors in the success of any given plant.

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<sup>3</sup> The close proximity of shipment destination is the result of an intentional site location strategy by many of the end users of these chemicals.

**Table 4.2**  
**U.S. Chemical Carloads Originated**

<b>Railroad</b>	<b># Carloads 1994</b>	<b>Market Share 1994</b>	<b>Market Share 1993</b>
Union Pacific (inc. CNW)	469,870	30.2%	28.2%
CSX Transportation	312,289	20.1	19.4
Southern Pacific	176,632	11.4	12.8
Norfolk Southern	123,678	8.0	8.3
Burlington Northern	104,573	6.7	7.7
Santa Fe	101,800	6.6	7.6
Illinois Central	85,885	5.5	5.5
Conrail	84,815	5.5	5.5
Kansas City Southern	59,838	3.9	3.0

Source: *Chemical Week*, Feb. 1 1995.

#### 4.3.2 *Plastics*

Transportation is the second largest cost factor in the production and marketing of plastic resins, representing 20 percent of delivered costs.<sup>4</sup> About 80 percent of the plastics resins produced are shipped via rail transportation in covered hopper cars. It is estimated that Gulf Coast corridor plants ship 300,000 carloads per year.<sup>5</sup> Since plastics resins producers and consumers are geographically dispersed, most shipping distances are greater than 1000 miles.

One of the unusual logistics features of plastics resins is that primary storage of the finished good is in rail cars.<sup>6</sup> The need for dedicated railcars has led to shippers owning large fleets of covered hopper cars. The “plastics fleet” is estimated at 40,000 covered hopper cars with a value of about \$2.6 billion. Obviously, plastics resins shippers

<sup>4</sup> Presentation by Al Bowles, Society of Plastics Industry, at the Houston Transportation Club February 6, 1996.

<sup>5</sup> Al Bowles.

<sup>6</sup> Plastic resins production is characterized by large single-product runs.

have much at stake in the quality and price of rail transportation services. However, rail companies have also invested heavily in providing facilities for plastics shippers.

Rail carriers have invested millions of dollars in rail yards that serve as storage facilities for resin-filled cover hopper cars waiting for sale. Though the investment for land and trackage related to the storage facilities has likely been long-recovered, we nonetheless believe these valuable resources serve as motivators for railroads to maintain and grow their market share. No rail company could come close to the combined Union Pacific and Southern Pacific with combined market shares of 71 percent for Gulf Coast polyethylene and 81 percent of Gulf Coast polypropylene -- a dominant market position.<sup>7</sup>

#### *4.4 Merger impacts on plastics and chemical shippers*

##### *4.4.1 Service impacts*

The proposed merger of the Union Pacific and Southern Pacific railroads could possibly lead to improved service in some of the distribution corridors used to access vital markets for these industries. As specified in the Intermodal section of this report, shorter routes, with attendant transit time improvements, will be available to current Union Pacific customers in the Gulf Coast to California routes. This could enhance Gulf Coast shippers' competitive positions for sales in Southern California through the Pacific Northwest.<sup>8</sup>

The merger filing also purports to show that access to markets in the northeastern United States will improve through the proposed directional routing scheme for the

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<sup>7</sup> Gulf Coast polyethylene and polypropylene shipments total about 38 billion pounds of product in 1994 according to Bowles.

<sup>8</sup> Testimony presented on behalf of the merger suggests that transit times will be reduced by a matter of days.

Houston to St. Louis corridor with connections to the eastern rail carriers. However, given that many rail experts have expressed doubt about the operational viability of the directional routing proposal, we do not feel the service benefits related to directional routing can be accounted as certain.

Any routings that currently require an interchange between the Union Pacific and Southern Pacific should, over time, experience improved transit times as the rail systems are merged. Expanded single-line service will lower the incidence of mis-bills and yard switching delays.

Safety is a critical service element in the transportation of certain chemicals. With access to capital, it is expected that safety issues concerning the Southern Pacific will be greatly alleviated as infrastructure improvements are accomplished by the merged railroads.<sup>9</sup>

A final service benefit that will likely attend the merger of the Union Pacific and Southern Pacific is faster return time for shipper-owned rail cars. Since both plastics and chemical shippers have substantial investments in rolling stock we see this as a service as well as a financial benefit of the merger.<sup>10</sup>

#### *4.4.2 Rate impacts*

Documents filed by the Union Pacific insist that the merger will not result in higher shipping rates for plastics and chemical producers. The documents identify several reasons that rates will remain competitive. First, proponents assert that source competition will provide incentive for rates to remain comparable to those prior to the

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<sup>9</sup> This issue is further addressed in the “Safety” section of this report.

proposed merger.<sup>11</sup> Second, customer leverage is cited because many customers enter into relatively long transportation contracts that cover many shipping locations and several commodities. Third, principals of the merging railroads insist that if rail rates become too high, shippers will switch to alternative transportation modes such as truck or barge transportation. Finally, the proposed agreement with the Burlington Northern/Santa Fe railroad will provide competitive access to another rail carrier for any customer that is currently served by the Union Pacific and Southern Pacific.

Source competition is an uncertain guarantee of competition at best. Production facilities are constrained by production capacities. Furthermore, production facilities in these industries often represent capital investments of more than \$1 billion -- they must produce to generate revenues, and transportation rate increases will be passed along to consumers through higher prices. In addition, to the extent that the proposed merger encompasses rail service to a large portion of the total production capacity in chemicals and plastics, there is a relatively good chance that a single company may face the same carrier choices at multiple facilities.

As noted above, the merged Union Pacific/Southern Pacific will start with substantial market shares for United States chemical carload originations. This market concentration is even more pronounced for certain chemicals and plastics produced in the Texas-Louisiana Gulf Coast corridor. For example, the combined Union Pacific/Southern Pacific represents 71 percent of the Gulf Coast market share for polyethylene carloads, 80 percent of polypropylene with lesser, though still dominant, market shares for vinyl

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<sup>10</sup> Estimates of the financial benefit of faster equipment return times is beyond the scope of this analysis. However, it should be considered as a potentially positive effect of the merger.

chloride, chlorine and carbon black. This level of market concentration suggests that some chemical manufacturers will not have an effective rail carrier choice even if production is shifted from one plant to another. Alternatively, if this threat of shifting production sites is real, we must consider the potential negative impact of the merger on Texas jobs in these high-wage industries.

These same concerns also apply to the suggestion that shippers possess inordinate market power because of multi-year, multi-location shipping contracts. Since a large portion of national production of certain chemicals and plastics is concentrated in the Gulf Coast region, and that is also where the merged railroads will have their greatest concentration of market share, shippers could find themselves effectively captive to one railroad. However, if the largest shippers possess this market power, then it is likely that they will receive lower freight rates. Unfortunately, this would also suggest that smaller producers will bear the brunt of rate increases that will tend to diminish Texas' attractiveness for future site development by small, innovative companies.

Suggesting that rail rates will remain competitive because of competition between transportation modes also raises several questions. Tank-barge transportation is effectively limited to destinations that are located on, or very near, major inland waterways. Moving freight to tank-barge would require substantial consolidation of shipments given that each barge carries the equivalent of 16 railcars. Shipping trends suggest that customers are ordering smaller, not larger, quantities per shipment.<sup>12</sup>

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<sup>11</sup> Source competition refers to a producer with multiple facilities shifting production away from plants with increasing freight rates.

<sup>12</sup> This is evidenced by the growth of shipping services such as Flexi-flo offered by Conrail that allows customers to order in smaller quantities while retaining some cost efficiencies.

Shifting transportation modes from railcars to trucks presents many problems, most importantly that of public safety. Shifting transportation to trucks would require a little more than 4 trucks per carload for equivalent shipping volumes. As indicated by Table 4.3 below, safety incidents involving over-the-road transportation of hazardous materials occur much more frequently than incidents involving railcars. This is not to suggest that trucking firms are less safety conscious than railroads but rather that greater opportunities for accidents are inherent in over-the-road transportation versus rail transportation. Moreover, when safety incidents do occur, the danger to public safety is almost invariably greater for truck-related incidents compared to rail. Further, even though the use of barge/truck intermodal shipments, as cited in merger application documents as an example of inter-modal competition, would rely less on over-the-road transportation than exclusively truck shipping, we believe that these shipment still represent increased safety risks.

**Table 4.3**  
**Hazardous Material Transportation Incidents**

Year	Highway		Railway	
	<i>U.S.</i>	<i>Texas</i>	<i>U.S.</i>	<i>Texas</i>
1990	7299	367	1279	144
1991	7644	427	1155	162
1992	7794	476	1130	138
1993	11,079	717	1121	169
1994	13,999	789	1157	138

*Source: US Department of Transportation*

In addition to safety considerations, having additional truck traffic will exacerbate already existing problems of traffic congestion, traffic safety and stress on the public transportation infrastructure. Therefore, regardless of rate-efficiency considerations, we

believe it is unwise to adopt positions that may promote greater use of trucks to transport chemical and plastics commodities.

Finally, the merger applicants have suggested that the proposed agreement for an as-yet-undetailed trackage rights agreement with the Burlington Northern/Santa Fe will provide competitive rail options for customers who are currently served by both the Union Pacific and Southern Pacific. Given that the Burlington Northern/Santa Fe has presented no operating plans as to how they will serve these potential customers, we find it difficult to assume that they will provide effective rail competition. Concerns about adequate yard facilities to support the in-transit storage of these commodities, gaining market access to shippers under multi-year contracts and competing with effective routes remain.<sup>13</sup> These concerns are especially prominent for shipments moving to the midwest to connect with eastern carriers. If the directional operation proposal is implemented, shippers using the Burlington Northern/Santa Fe will be forced to take a much more circuitous route or go “upstream” against the southbound traffic of the Union Pacific/Southern Pacific. And, while the Burlington Northern/Santa Fe will possess competitive routes to the Pacific Northwest, they will be at an extreme competitive disadvantage for shipments to the lucrative Southern California markets.

Given the concerns about each of these “competition-enhancing” alternatives, we believe that the extreme market concentration in the chemical and plastics shipping market, realized through the merger of the Union Pacific and Southern Pacific railroads, will lead to the merged railroads being able to exert near-monopoly rents from many of their customers located in Texas and the Gulf Coast corridor. Estimating the degree to

which rates will increase is beyond the scope of this analysis; however, any increase in rates will make Texas-produced goods in these industries less competitive with attendant detrimental impacts on Texas industries and workers.

#### 4.5 *Conclusions*

The proposed merger of the Union Pacific and Southern Pacific railroads could enhance service to chemical and plastics producers located in the Texas and Louisiana Gulf Coast. These service enhancements include lower transit times from shorter routes and single-line routing to markets in Southern California, the Pacific Northwest and possibly to the midwest and connection with eastern rail carriers. However, we feel the extensive market consolidation that will be realized through the merger will lead to rate increases for shippers in these industries. Higher freight rates could have negative impacts on the state of Texas, either through shifting production to plants outside of Texas, making Texas less attractive for new, especially smaller, plants or shifting shipping modes to over-the-road transportation. Therefore, we do not believe that the merger, as proposed, can be supported based on its likely impacts to the chemical and plastics industries.<sup>14</sup>

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<sup>13</sup> A further review of concerns regarding the proposed agreement to establish trackage rights is included in the “competition” section of this report.

<sup>14</sup> We do acknowledge that the merger applicants have received letters of support from individual chemical and plastics shippers. However, many of these firms are likely exhibiting strategic behavior regarding rate negotiations instead of actual support for the merger’s outcomes. Moreover, many of these firms have locations in several states; therefore, their support could be based on net impacts while we are concerned primarily with impacts on Texas industries and citizens.

## ***Section 5: Merger Impact on Intermodal Shipments***

### *5.1 Introduction*

In this section we examine the likely impacts of the proposed UP/SP merger on intermodal transportation services into and out of Texas. For the purposes of this discussion, intermodal shipments include trailer-on-flat-car (TOFC) and container-on-flat-car (COFC) shipments.

Trailer-on-flat-car shipments use standard semi-trailers that are conveyed to and from customer locations by local drayage carriers using tractor-trucks. The trailers are transferred to flat-car carriers at intermodal terminals using large straddle cranes. Included in the TOFC category, “Roadrailer” trailers do not require the use of flat-cars. These trailers have undercarriages designed to accommodate rail axles and couplings for direct-to-rail use. (Though the technology for roadrailer-type trailers has existed for many years, only recently have these designs begun to show even modest levels of acceptance. The weight of the special undercarriage limits the effective load capacity making the trailers relatively cost-inefficient for medium- to high-density loads.)

Container-on-flat-cars refer to the use of ocean-shipping containers instead of trailers. The containers are transferred from vessels either directly onto rail cars or onto chassis that are transported by tractor-trucks to intermodal terminals for transfer to rail cars. However, not all of the shipments transported via COFC originate nor are destined for water-borne transportation. Increasingly, containers are used as a substitute for trailers in intermodal shipments to reposition the containers for use in water shipments. For example, a container arrives at the Port of Houston destined for Denver. Upon unloading in Denver, there is no ready demand for an ocean container. However, there

are shipments destined for Dallas where there is a demand for ocean containers by export shippers.

## 5.2 *Growth of Intermodal Shipping*

Intermodal shipping is, by far, the fastest growing segment of the transportation industry. As shown in Table 5.1, intermodal traffic nearly doubled between 1981 and 1990. Rail service companies have dramatically improved the level of service they offer for intermodal shipments. In the early 1980s, shippers choosing TOFC as their shipping mode traded lower transit costs for uncertain delivery times and uncertain delivery conditions. Shipments most suited to intermodal transport were those that had little or no immediacy for transit times and were virtually impervious to in-transit damage.

With improvements in equipment design and handling techniques, intermodal became a more attractive option for general commodities shipping. The growing use of containers for international shipments also increased demand for intermodal shipping options in domestic transportation. Along with the aforementioned need to reposition ocean containers, rail carriers experienced efficiency gains with the advent of double-stacking containers for rail transit. The growth of demand for intermodal shipping allowed rail carriers to schedule dedicated intermodal trains running through routes between the nation's industrial and distribution centers.

**Table 5.1**  
**Intermodal Shipments**  
(total trailers/containers, US)

Year	Containers	Trailers	Total
1979	NA	NA	3,278,163
1980	NA	NA	3,059,402
1981	NA	NA	3,150,522
1982	NA	NA	3,396,973
1983	NA	NA	4,090,078
1984	NA	NA	4,565,743
1985	NA	NA	4,590,952
1986	NA	NA	4,997,229
1987	NA	NA	5,503,819
1988	2,298,527	3,481,020	5,779,547
1989	2,491,093	2,496,262	5,987,355
1990	2,754,829	3,451,953	6,206,782
1991	3,031,208	3,209,239	6,243,447
1992	3,363,244	3,264,597	6,627,841
1993	3,692,502	3,464,126	7,156,628
1994	4,375,726	3,752,502	8,128,228
1995	4,550,645	3,519,664	8,070,309

*Source: Intermodal Association of North America and American Association of Railroads.*

Evidence of the enhanced quality of and demand for intermodal shipping was demonstrated in a 1994 study of shippers commissioned by the National Industrial Transportation League. The study surveyed shippers' assessments of comparative service quality between over-the-road trucking and TOFC/COFC shipping. The results indicated that for shipments of less than 1000 miles, trucks could still offer superior service. This is not surprising given the time needed to transfer trailers/containers from customers to and from intermodal terminals along with loading and unloading the equipment onto rail cars. For distances of approximately 1000 miles, shippers rated truck and intermodal shipments equally. However, at transit distances of 2000 and 3000 miles, intermodal shipments were rated superior to over-the-road trucking. What is perhaps mildly surprising about these assessments is the near-certainty that shipments

transiting 2000 or more miles must have been interchanged between one or more rail carriers at the time of the survey (prior to the Burlington-Northern/Santa Fe merger).

Improvements in service offerings are perhaps even better demonstrated by looking at one the fastest growing customer bases for rail companies' intermodal services -- over-the-road truckers. The largest two truck-load carriers in the nation, J.B. Hunt and Schneider National Transportation, are increasingly contracting with rail carriers to transport their trailers. The trucking companies are offering their customers broader packages of service/price options to increase transportation efficiencies for customers while allowing the truckers to attract additional total transportation market share.

Future changes in equipment design will likely enhance transportation efficiencies thereby expanding the use of intermodal shipping options. For example, last year TTX introduced a new well-car that accommodates double stacking 53 foot-long containers. (Well-cars are designed to permit double stacking containers while lowering the overall profile of the loaded car reducing wind drag coefficients and permitting clearance under low bridges.) In addition, with expanding trade more shipments are originating in Mexico and Canada, both of whom have higher weight limits for trucks than do many states. These higher-weight shipments often experience difficulties in over-the-road transportation because state weight limits are not consistent. If these shipments move via intermodal services, trailer/container weight is a concern only at the shipment's origin and destination. Moreover, damage to the highway infrastructure is lowered as these heavy shipments are diverted to rail.

### 5.3 *Impacts of the UP/SP Merger on Intermodal Shipping*

#### 5.3.1 *Service*

Service levels for intermodal shipments originated or destined for several Texas cities is likely to improve following the merger. These improvements are based on shorter routes created by combining UP/SP trackage, proposed directional routing in specified lanes and promised construction/expansion of intermodal terminal facilities.

The greatest improvement in service based on shorter routes will be to those intermodal customers located in or shipping through the Dallas-Fort Worth (DFW) area. Combining the Union Pacific's Fort Worth to El Paso route with the Southern Pacific's "sunset" route to Los Angeles will reduce transit times in this lane by one-half day compared to the best routing currently available on UP or SP. The route will also be 164 miles shorter than the route used by the BNSF. This will enhance competition in this lane not only between the UP/SP and BNSF, but will make intermodal shipping more competitive with over-the-road trucks. (Trucks using driver teams offer 48 hour service from DFW to Los Angeles. Though intermodal shipments will not be that fast, they will be close enough to offer expanded competition.)

Shippers and receivers in Dallas-Fort Worth will also gain access to routing that is nearly 300 miles shorter to Oakland, California compared to the best routings currently available (BNSF). While BNSF will retain the shortest routes from DFW to Portland, there will be substantial decreases in route-miles compared to existing UP and SP routes (251 and 499 miles, respectively). The improvements in Portland routes is especially important for access to East Asian markets. Portland offers the closest ocean routes between the contiguous United States and Pacific Rim nations thereby offering more

cost-effective transportation of import and export goods. (Ocean transportation is typically more expensive than land transportation, therefore international logistics strategies call for minimizing the ocean portion of international transits.)

The benefits of easier access to northwest ports will also be available to shipments originating or passing through El Paso. This is due to the planned construction of a new intermodal terminal at Colton, California that will allow shipments destined to the northwest to bypass the congested Los Angeles terminal. This will affect shippers and receivers in the El Paso-San Antonio-Houston-Beaumont corridor and could serve to promote business for through-shipments at the Port of Houston. The Union Pacific has also stated they intend to initiate new service from Laredo to California after the merger enhancing access for manufacturers and distributors to markets on the west coast as well as East Asia.

Intermodal shipments from San Antonio, DFW and Houston to St. Louis, Chicago and via connections to northeastern markets will likely benefit if the UP's proposed directional operations plan proves successful. This would speed transit times in very competitive transportation routes and could entice some shippers to switch from trucks to intermodal shipping. The use of trackage rights granted to BNSF in the merger application will also allow this carrier to offer shorter routes to its customers between St. Louis and Houston. However, as noted in the previous section, we count these benefits as uncertain.

The DFW market will gain further route efficiencies from the merger to New Orleans, compared to current UP routes. This could enhance services for importers and

exporters located in DFW. However, this could also be detrimental to the Port of Houston's ability to compete for this traffic.

Proposed new terminal facilities at Texarkana and at Harlingen will undoubtedly improve intermodal services available to shippers located in, or transiting through these markets. Similarly, expanding existing facilities at San Antonio and Laredo will improve service to and through these markets.

### *5.3.2 Price*

When intermodal terminals are consolidated, it is anticipated that economies of scale will occur for railcar spots, trailer/container parking, loading/unloading equipment and personnel. The economies should allow the intermodal service provider to become more price-aggressive in the marketplace. However, there are also concerns that market consolidation, leading to fewer competitors, may lead to price increases. We do not believe that market consolidation will result in substantive price increases for consumers of intermodal services in Texas. If at any time the price of intermodal services rises above its perceived value, shippers will revert to truck transportation to satisfy their logistic needs. If anything, the economies of scale noted above will provide an opportunity for the UP/SP to become more price competitive.

### *5.4 Conclusion*

The merger of the Union Pacific and Southern Pacific railroads will create rail routes that should improve service offerings for Texas shippers to key markets in the midwest, northeast and west coast and export markets to East Asia. Texas consumers should also benefit from improved intermodal access to these markets (provided that

transportation costs and efficiency gains are passed along). Texas ports may also be benefited as improvements in intermodal services enhance their service offerings.

The pricing of intermodal services is a competitive balance between service/price options with over-the-road truckers. It is unlikely that any significant price increase, resultant from rail transportation market participant consolidation, would be viable given the relative ease with which customers could shift their transportation mode. Moreover, service enhancements, along with equipment improvements, may increase the attractiveness of intermodal as a shipping option, thereby promoting the socially-desirable shift of goods transportation from highways to railways.

## ***Section 6: Mexico<sup>1</sup>***

### *6.1 Introduction*

Currently there are only five land rail ports of entry to Mexico. The Union Pacific has interchange with Mexican railcarriers at Brownsville and Laredo. The Southern Pacific has interchanges at Eagle Pass and El Paso. The Burlington Northern/Santa Fe has an interchange at El Paso and possesses trackage rights to Eagle Pass through Flatonia via the Southern Pacific. The Tex-Mex Railroad is a short-line carrier that runs between Corpus Christi and Laredo. Finally, the South Orient has an interchange at Presidio. This section reviews traffic patterns to and from Mexico and considers the potential impacts of the proposed Union Pacific/Southern Pacific merger on cross-border transportation.

### *6.2 Patterns of trade.*

Mexico is, by far, Texas' largest trading partner. In 1993, almost \$19 billion (45.5 percent of U.S. total) in US-Mexico trade originated in Texas. Furthermore, two-thirds of all shipments from the United States to Mexico pass through Texas ports of entry. Laredo leads the way with more than one-third of the total exports passing through its port of entry (see Table 6.1 below).

These values have declined since the collapse of the Mexican peso in early 1995. However, Mexico has started its long climb to economic health and the long-term outlook for trade with Mexico continues to be bright.

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<sup>1</sup> Portions of this section were contributed by Hoy Richards of Richards and Associates. The full text of Mr. Richards report is included in Appendix B.

**Table 6.1**  
**U.S. Exports Through Texas**  
**1993**

<b>Port of Entry<sup>2</sup></b>	<b>\$ value (millions)</b>	<b>% of total</b>
Laredo	\$ 15,950	38.3%
El Paso	6,460	15.5
Brownsville	2,960	7.2
Eagle Pass	1,980	4.8

*Source:* Jose San Martin Romero, October, 1995

In 1993, more than 53.7 million tons of cargo from Mexico to the U.S. were carried by truck. This compares to only 14.7 million tons transported via rail carrier.<sup>3</sup> Some of this disparity between shipping modes can be explained by near-border maquiladora plants. However, we believe that given sufficient competition there is additional market share available for rail carriers.

### *6.3 Merger impacts on cross-border transportation*

The proposed merger of the Union Pacific and Southern Pacific railroads will result in more than 90 percent of current cross-border traffic being held by the merged carrier. It does not take a review of economic theory to understand the potential market dominance that can be exerted when such a huge share of the total traffic volume is handled by one carrier. However, there are some positive outcomes that could result from the merger. Most notably is an extension of the significant infrastructure development that has already been undertaken by the Union Pacific to enhance its ability to service intermodal shipments and railcars through Laredo.<sup>4</sup> Higher volumes of traffic moving

<sup>2</sup> Presidio's trans-border shipping does not represent a significant portion of total trade.

<sup>3</sup> Based on data presented by Jose San Martin Romero in an October 1995 presentation.

<sup>4</sup> The Union Pacific has recently completed construction of a new \$25 million yard facility in Laredo.

over the Union Pacific's lines at Laredo would help the company justify expending private dollars to improve cross-border infrastructure (bridges).

However, we remain concerned that the extent of market consolidation represented by the merger of these two railroads may allow the carrier to exert monopoly rents from existing rail customers and will not promote the most rapid expansion of cross-border rail traffic. These concerns have also been expressed by notable officials in Mexican border states.<sup>5</sup>

Texas' citizens, prompted in part by recent actions of the U.S. Secretary of Transportation, are very concerned about the safety risks that are posed by allowing Mexican trucks onto Texas roadways in compliance with the North American Free Trade Agreement (NAFTA). In a recent survey conducted by the University of Texas' Office of Survey Research, 55 percent of responding Texas citizens have "very serious" concerns about allowing Mexican trucks on Texas roads.<sup>6</sup> While Mexican trucks must pass a safety inspection to enter the United States, safety concerns have been publicly noted by the Texas Department of Transportation and by members of the Texas Railroad Commission. Moreover, with the expectation that trade with Mexico will increase rapidly in the future, and the realization that a federal government set on balancing the national budget will not be as forthcoming with highway development funds, it is important that Texas policymakers seek to encourage the development of alternative modes of transportation for cross-border shipments. Encouraging competition among rail carriers, not rail market

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<sup>5</sup> Letters of concern have been sent to Ms. Brenda Arnett, Director of the Texas Department of Commerce from Lic. Armando Martinez, Head of the Department of Commerce, State of Chihuahua (March 4, 1996); Ing. Enrique Terrazas, Director General, General Directorate of Economic Development, State of Chihuahua (February 13, 1996); and, Ing. Miguel Rubiano, Secretary of Economic Development, State of Tamaulipas (March 5, 1996).

consolidation, will foster the deployment of infrastructure and rate competition that will likely encourage Mexican shippers and receivers to consider rail transportation over trucking.

We also believe that the market dominance of the Union Pacific will lead to a further consolidation of traffic volume in the Laredo corridor. Promoting the development of other border crossings, by contrast, will help alleviate congestion in the already overcrowded Laredo corridor and allow other border areas to enjoy the economic success attendant to increased border activity.

An additional consideration that must be evaluated is the impending privatization of the Mexican national rail system. The Mexican government has proposed splitting the national rail system into several regional concessions. Foreign ownership of each concession will be limited to 49 percent and ownership can only be held in one concession. It is expected that several U.S. rail carriers will seek partnerships with Mexican firms to purchase these concessions.

Though the exact makeup of the concessions may change, current information shows that ports of entry at Nuevo Laredo (Laredo) and Matamoras (Brownsville) will be included in the Northeast concession. Piedras Negras (Eagle Pass) and Juarez (El Paso) will be served by the North-Pacific concession, while Ojinaga (Presidio) will be served by the Chihuahua-Pacific concession. Given the likelihood that at least one U.S. carrier will gain partial ownership of the Northeast concession, we believe it is important to foster rail

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<sup>6</sup> The survey results are reviewed in a March 9, 1996 Dallas Morning News article by Jennifer Files.

transportation through a port that will be serviced by the North-Pacific concession.<sup>7</sup> Since El Paso currently benefits from significant trade activity, we suggest an effort be made to promote expanded rail activity through Eagle Pass.

#### 6.4 *Conclusions*

The Union Pacific/Southern Pacific has argued that granting trackage rights to the Burlington Northern/Santa Fe will obviate concerns about market consolidation. However, as discussed in other sections of this report, we feel that significant questions remain about the viability of these as-yet unspecified rights to foster cross-border rail competition. The development of effective rail competition is the best way to address concerns about the growth of cross-border truck traffic and to promote development opportunities for areas of the Texas border not currently enjoying the trade boom. The infrastructure developments that have been undertaken by the Union Pacific are most probably justified by that rail carrier's existing traffic. Competition among three major rail carriers should be maintained to help ensure that rates and service reliability are enhanced to all Texas ports of entry.

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<sup>7</sup> The Chihuahua-Pacific is the least noted of the three concessions proposed for Texas ports of entry. Further, we do not feel that the South Orient currently possesses the fiscal capacity to provide a viable alternative rail carrier option.

## ***Section 7: Merger Impacts on Rural Rail Transportation***

### *7.1 Introduction*

In this section, we briefly consider the merger's likely impacts on rail service to rural areas within Texas. The effects on economic development potential in rural areas are addressed in Section 8.

### *7.2 Abandonments*

As noted in Table 7.1 below, the merger application submitted by the Union Pacific and Southern Pacific specifies remarkably few track segments for abandonment. This is surprising given the overlapping nature of the proposed merger. In comparison, the Burlington Northern/Santa Fe merger, which was characterized as an end-to-end merger, contained more proposed abandonments than the Union Pacific/Southern Pacific proposal. Officials at the Union Pacific contend that the relatively few miles of track included in the proposal for abandonment indicate the market vitality on the combined railroad's Texas tracks. However, much of the line in the Houston to St. Louis corridor avoids redundancy only because of the proposed directional operations in this lane. If this operation plan were ever abandoned, or never begun, then significant portions of trackage along this route would be prime targets for abandonment.

Though the proposed abandonment lines have had little or no use in the past two years, the description of these abandonments (based on maps depicting the abandoned lines included in the merger application) point to a tactic used by most of the major railroads to discourage future development of rail competition along the abandoned track.

For example, the Southern Pacific's Suman to Bryan line abandonment does not encompass the entire line between junction points. At both the north and south end of this line, the Union Pacific intends to retain a small portion of track. Therefore, any short-line railroad, rural rail district, developer or industrial rail user that purchased this track would be forced to pay switching charges and trackage-use fees to the Union Pacific for any traffic moving into the rail junction -- virtually capturing any potential shippers who may ever want to locate along this route.

**Table 7.1**  
**Proposed Track Abandonments in Texas**

<b>Serving Railroad</b>	<b>Location</b>	<b>Communities Affected</b>	<b>Total Miles</b>
Union Pacific (MP)	Troupe-Whitehead line, Smith Co.	none	7.5
Southern Pacific	Suman-Bryan line, Brazos & Robertson Cos.	Benchley, Sutton	16.2
Southern Pacific	Seabrook-San Leone line, Galveston & Harris Cos.	Seabrook, Clearcreek	10.5

*Source:* Union Pacific/Southern Pacific merger application.

### 7.3 *Class III Railroads (Shortlines of Texas)*<sup>1</sup>

Currently there are some 45 Class III railroads operating in Texas. The Association of American Railroads classifies these railroads as either Switching & Terminal companies or Local Railroads. The following 1993 data relate to 36 of these Class III railroads.

Shortlines in Texas operate 1,619 miles of railroad and handle approximately 450,000 rail carloads of traffic annually. Although Switching & Terminal railroads operate only one third of the Class III mileage, they account for 75% of the employment and 65% of the traffic

moved by the Texas Class III railroads. Texas Class III railroads handle approximately 25% of all rail traffic that is both originated and terminated in Texas. Farm products account for 22% of all Class III traffic. This is followed by 17% chemicals, 17% petroleum and coal, and 9% non-metallic minerals. It should be noted that farm products account for 22% of the Class III traffic as compared to only 6% of the Class I railroad origination. The higher percentage of Class I terminations (14%) can be explained by the fact that shortlines deliver to Class I farm product traffic for export out of the State.

The introductory chapter to the Texas Rural Rail Preservation report, prepared for the RRC and the Office of the Governor, suggests the significance of Texas shortlines to the economic future of rural Texas:

Observers of the Texas rail industry will acknowledge that the system is in a continual state of transition. The rail network seen today is not what it was yesterday or what it will be tomorrow.

The changes that have taken place in the system are primarily the results of acquisitions, mergers, consolidations and bankruptcies. In reviewing these changes it becomes apparent that there is an increasing role for the railroad industry in the expanding Texas economy. Although Class I railroad companies operate most of the track miles in the state, and account for the majority of freight tonnage moved, they no longer serve vast regions of the state. Many communities currently served by major railroads are discovering that their rail service may be in jeopardy. Others have lost service, while still others are now being served by a shortline railroad. Unfortunately, over the years, community leaders and users of rail service have taken for granted the existence of the railroad and now find themselves in a reactive position. The situation might be completely different if these same groups had taken a proactive position in past efforts to preserve rail service in rural areas. Just as the rail system has undergone change, so has its users. Line abandonments have left users without service and necessitated the increase use of trucks. Others have relocated their plants or gone out of business.

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<sup>1</sup> This discussion was prepared by Mr. Hoy Richards. The full text of Mr. Richards' report is attached as Appendix B.

The preservation of rural rail transportation service is the responsibility of both the private and public sector. Shortline railroads serving rural Texas feed rail traffic to the Class I carriers. In the past as "public utilities," the Class I carriers have had a duty to serve shippers requiring their service. The deregulation of the railroad industry has lessened this responsibility. However, deregulation is not the only reason for rail service abandonment. Rail branch line economics frequently justify the discontinuation of "unprofitable" service. Still other socio-economic factors must be given consideration prior to the dismantlement of a rail line. For instance, including social as well as economic costs of rail abandonments should be a part of state-wide transportation system policy.

#### *7.4 Impact on agriculture industries*

An expert in the field of rural rail transportation<sup>2</sup> has noted that four times as much agriculture traffic originating in Texas moves via truck transportation as does agriculture shipments originating outside of Texas destined for Texas ports. This disparity is only partially explained by shorter distances. Previous line abandonments, caused by "economically unfeasible" traffic volumes and rail mergers, have forced many agriculture shippers in rural communities to increase their use of truck transportation. This change in transportation modes has created increased stress on rural roadways leading to higher demand for repairs and infrastructure development. Counties that are financially-strapped are having difficulties adjusting to these increased demands. In addition, Texas agriculture producers in these abandoned areas experience higher total transportation costs that are not readily recovered through commodity prices.

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<sup>2</sup> Mr. Hoy Richards.

## 7.5 *Conclusion*

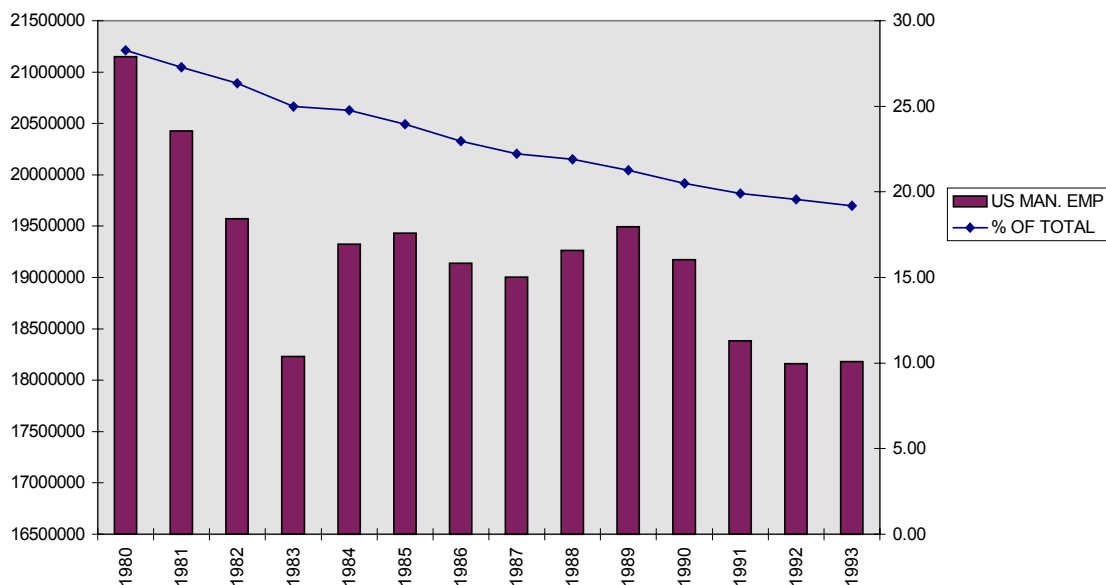
If there are no additional track abandonments, other than those proposed in the merger application, the merger's impact on Texas' rural areas will be minimal. However, a cursory review of previous mergers would suggest the Union Pacific is being overly-optimistic about the future viability of the significantly-redundant tracks that will be created by the merger. It has also been suggested that if the merger is not approved, the Southern Pacific may be forced to abandon significant sections of less-profitable track. In either case, we feel that any abandonments should include all trackage necessary to reach a mainline junction. This will allow abandoned-segment purchasers a reasonable guarantee of mainline access providing the opportunity for effective rural-rail preservation efforts.

## ***Section 8. Merger Impacts on Industrial Development***

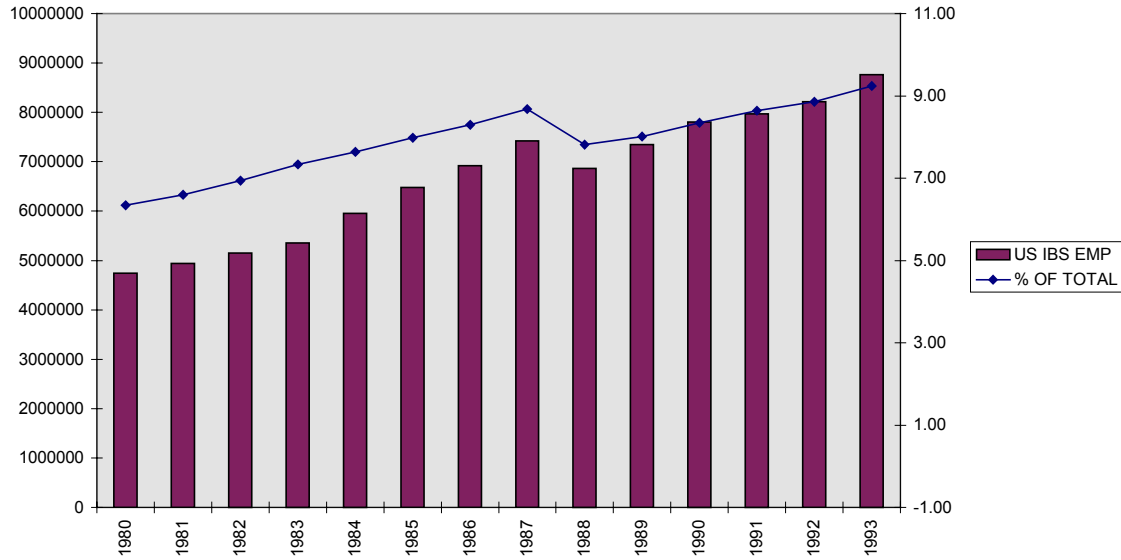
### *8.1 Introduction*

The popular press, economists, pundits and futurists purport that the United States has passed through the industrial age and has been moving toward an information-based economy. The growth of the business services sectors, particularly information-based services, seem to support this assertion. Texas has also followed this trend. However, even though manufacturing has declined as a percentage of total employment in Texas and the United States, manufacturing employment still represents one out of every seven jobs in the United States and almost one out of every six jobs in Texas. This section examines how the proposed Union Pacific/Southern Pacific is likely to impact Texas' ability to attract and retain employers in the manufacturing sector.

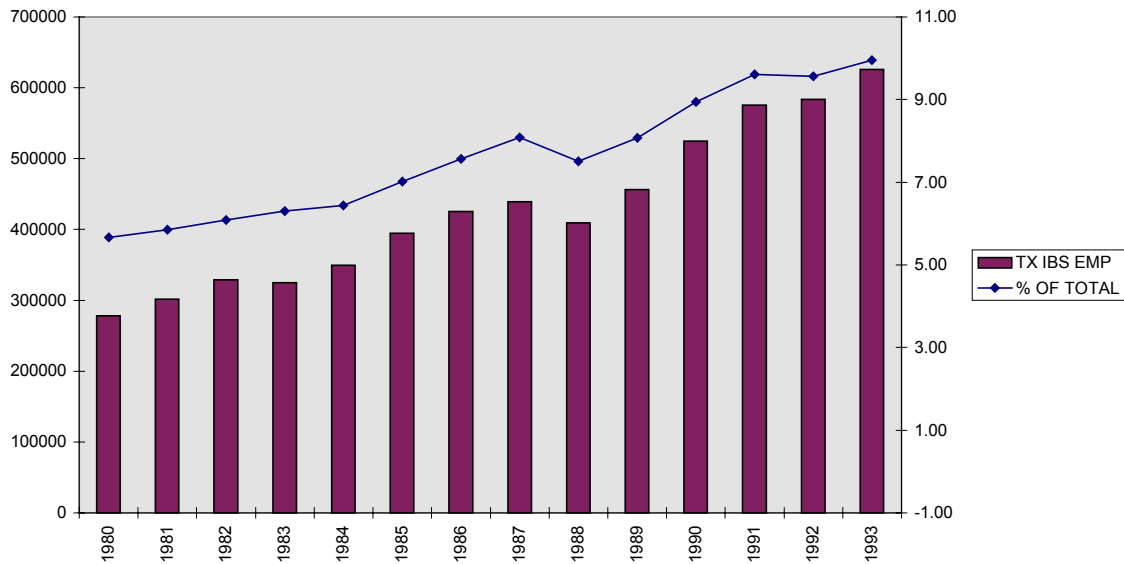
**Chart 8.1**  
**US Manufacturing Employment as a Percentage of**  
**Total US Employment 1980-1993**



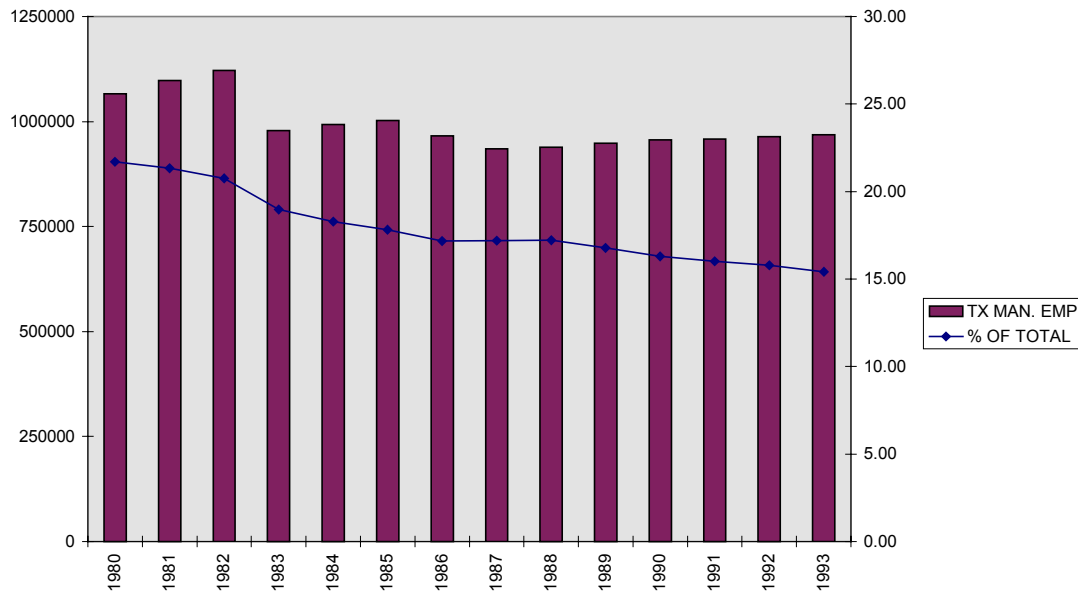
**Chart 8.2**  
**US Information Based Services Employment as a Percentage of**  
**Total US Employment 1980-1993**



**Chart 8.3**  
**Texas Information Based Service Employment as a Percentage of**  
**Total Texas Employment 1980-1993**



**Chart 8.4**  
**Texas Manufacturing Employment as a Percentage**  
**of Total Texas Employment 1980-1993**



## 8.2 *The Role of Rail Transportation*

The economic development literature notes that availability of rail transportation is a critical component in attracting manufacturing plant sites -- especially durable goods manufacturing -- and the warehousing and distribution facilities that support their operations.<sup>1</sup> Indeed, the presence of rail transportation has been found to be a necessary, if not sufficient, condition for attracting industrial development. However, much of the literature fails to illustrate a critical point in its evaluation of the importance of rail transportation in site selection decisions: It is not the just the presence of rail

<sup>1</sup> For example, see Chapman, Keith, *Industrial Location* (1987), Miller, E. Willard, *Manufacturing: A Study of Industrial Location*, (1977), Walker, David F., *Industrial Services*, (1977), and McPherson, Edwin M., *Plant Location Selection Techniques*, (1995)

transportation that is important, it is the presence of competitive rail transportation that is important.<sup>2</sup>

This point is not treated with distinction in most academically-based research efforts. However, there is direct as well as anecdotal evidence in the professional literature to suggest that the presence of two or more competing rail lines is very important in the site selection decision. In a 1991 assessment of plant site location factors in the forest products industry, the availability of access to multiple rail carriers was considered among the three most critical features of any given location.<sup>3</sup> In fact, industry specific publications report that competitive rail access is important for manufacturing facilities across a wide range of industries.<sup>4</sup>

Articles and publications that tout the advantages of particular industrial sites regularly highlight their competitive rail transportation assets. In a 1994 article, *National Real Estate Investor* briefly reviewed a number of new development sites across the country.<sup>5</sup> One prominent project illustrated is the 15,000 acre Cedar Crossing Park development near Houston. The article proudly proclaims that it is served by both the Union Pacific and Southern Pacific railroads. Similarly, a 1995 article illustrating the competitive advantages of Columbus, Ohio, as an industrial development site boasts of the area being served by three Class I railroads.<sup>6</sup> Another article promoting Oklahoma City

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<sup>2</sup> In this context, competition refers to intramodal competition.

<sup>3</sup> Muller, E. J. (1991). Site Selection: Weekes Forest Products. *Distribution*, 90(13), 37-38.

<sup>4</sup> Kinstrey, Robert (1991). Greenfield Mill Site Permitting Can take Years of Preparation. *Pulp & Paper*, 65(2), 139-143. Kalvin, Judy (1986). How Philip Morris Found Marlboro Country. *Corporate Design & Realty*, 5(8), 124-127.

<sup>5</sup> Jurgens, Kallie (1994). Park Developers, Managers Capitalize on Changing Times in Corporate America. *National Real Estate Investor*, 36(11), 138-155.

<sup>6</sup> McKee, William (1995). Voyage to the Midwest. *Distribution*, 94(1), 52-57.

observes that equally important to being at the crossroads of major east-west and north-south highways (IH40 and IH35), is the presence of three Class I railroads.<sup>7</sup> In conversations with local economic development officials and real estate developers, the presence of competitive rail access is touted as being one of the most important features of their available properties.

Perhaps the most telling arguments for competitive rail access can be found in the comments by senior managers of short-line railroads. These industry insiders are among the loudest voices supporting the maintenance of multiple rail carrier competition. The title of a recent article in *Railway Age* advises: “Don’t limit yourself to one Class I connection.”<sup>8</sup> This article presents the results of an informal, nonscientific survey of short-line rail managers who were asked to comment on the need to have access to more than one Class I rail carrier.<sup>9</sup> The availability of competitive access gives shippers, as well as short-lines, options; therefore, major rail carriers are less likely to take a particular piece of business for granted. One respondent noted: “Spurred by the prospect of losing the move to a competitor, Class Is can deliver creativity, rate flexibility, customized contracts, and improved service reliability.” When there is competitive access, shippers can choose among the strengths that each Class I has to offer such as differences in service performance to various destinations or particular strengths, or weaknesses in handling a

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<sup>7</sup> Oklahoma City is currently served by two Class I railroads -- Union Pacific and Burlington Northern/Santa Fe. McConville, D. (1994). Oklahoma City. *Distribution*, 94(1), 52-57.

<sup>8</sup> Blanchard, Roy (1995). Don’t Limit Yourself to a Single Class I Connection. *Railway Age*, 196(1), 14+.

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<sup>9</sup> Participants included managers and executives from the Indiana Harbor Belt, Rail Tex (a short-line holding company), South Central Florida, Michigan Southern and the Central Ohio.

given product line. As noted by Chuck Allen of the Indiana Harbor Belt Railway: “I’d hate to run a railroad with just one connection . . . they’d have one hell of a grip on you.”

Clearly, these short-line rail carriers do not want to be captive to a single Class I rail carrier any more than shippers do. An indictment of how captive shippers can be treated by their serving rail carriers is illustrated by noting that two of the ten rail-served electric-utility power plants in Texas are currently building their own rail lines to connect with competing carriers.<sup>10</sup> (Unfortunately, this substantial expense is rarely justified when evaluating a new site.) This points to our major concern with the proposed merger as it relates to industrial development in the state of Texas.

### 8.3 *Impact of the Burlington Northern/Santa Fe Agreement*

The Union Pacific, as a method of addressing competitive concerns, entered into an agreement to develop a trackage rights agreement with the Burlington Northern/Santa Fe railroad. (The agreement is described in other sections of this report.) The proposed agreement provides that full access trackage rights<sup>11</sup> be granted to the Burlington Northern/Santa Fe anywhere that the merger reduces competitive access from two rail carriers (Union Pacific and Southern Pacific) to one. However, the agreement specifies that this provision only applies to those areas that are currently open to reciprocal switching between the Union Pacific and Southern Pacific.<sup>12</sup>

It is common for industrial development sites to be wholly included within reciprocal switching areas. However, there are defined limits to that area. As confirmed

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<sup>10</sup> See the included description of the merger’s impact on coal shipments.

<sup>11</sup> As noted elsewhere in this report, full-access trackage rights refer to the tenant railroad having competitive access to customers located along the specified route.

through conversations with executives of the Union Pacific railroad,<sup>13</sup> any new industrial development outside of existing reciprocal switching areas will not qualify for inclusion in the proposed trackage rights agreements. Therefore, any development that occurs outside of areas that are currently open to reciprocal switching, and are served by the merged Union Pacific/Southern Pacific, will be captive to the UP/SP.

#### *8.4 Merger Impacts on Industrial Development*

The merger is not likely to have any significant impact on Texas being able to attract new industrial development to areas that are already developed and served by more than one rail carrier -- either directly or through reciprocal switching. In fact, proposed capital improvements and routing efficiencies (leading to improved service) attendant to the merger may enhance the attractiveness of these areas of the state. However, given the extent of combined trackage that would follow a Union Pacific/Southern Pacific merger in Texas, particularly in the relatively undeveloped areas in western and southwestern parts of the state, we are very concerned that these areas will be at a competitive disadvantage for industrial site locations.

Without competitive access, areas of the state that will be captive to the Union Pacific will not be as attractive as already-developed urban areas in-state or sites outside of Texas. This presents problems for areas of the state that are already struggling to maintain or enhance their ability to attract quality job opportunities for their residents. Moreover, given the likelihood that the parallel routes created by this merger could, in the

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<sup>12</sup> Being open to reciprocal switching means that a customer located on a given railroad's line has access to another railroad. The carriers will switch each others' cars as directed by the customer's routing.

<sup>13</sup> Conversation with Mr. Jim Dolan and Mr. John Rebensdorf, Union Pacific Railroad.

future, lead to some track abandonment in rural areas,<sup>14</sup> these hinterlands may be denied the opportunity to ever attract future industrial development. *Without the necessary condition of access to competitive rail service, the sufficient conditions of available land, labor and other resources are meaningless for industrial site locations.*

#### 8.5 Conclusion

We see the proposed merger enhancing the attractiveness of some industrial sites if the Burlington Northern/Santa Fe aggressively pursues business opportunities granted through the proposed trackage rights agreement. However, if the BNSF does not pursue this business, then Texas' industrial sites that will go from two to one serving railroad will find their marketing efforts much more difficult. Under this scenario, it is likely that Texas will lose industrial site locations to other states.

More importantly, we see the merger, as currently proposed, as being detrimental to future industrial development opportunities for much of south, west and southwest Texas. Clearly, state leaders are not seeking to encourage the further concentration of economic opportunity to the states' urban areas. Indeed, much of the effort being undertaken by the Texas Department of Commerce and other agencies is designed specifically to enhance economic opportunities for the less developed parts of the state. With fewer choices of rail carriers, industrial site locators may choose to locate in areas outside of Texas that offer more choices for rail service. Furthermore, the likely abandonments that have historically accompanied parallel rail mergers will hinder development efforts in many rural communities across the state.

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<sup>14</sup> Since many of these rural areas do not possess significant rail-shipping industries now, there is little that can be done, on a broad scale, to prevent the loss of rail service to rural communities. (See the section on rural rail service.)

## ***Section 9: Regional Economic Impacts from the Proposed UP-SP Merger***

### *9.1 Introduction*

Measurable regional impacts in the short term will result from: (1) employment changes necessitated by the merger and (2) capital expenditures to upgrade UP-SP lines. Over the long term, the cost structure and economic competitiveness of regions with significantly enhanced or diminished rail infrastructure and service likely will be affected as well. This latter set of impacts is largely unmeasurable and is addressed only in general terms.

### *9.2 Impacts from Merger-Related Employment Change*

#### *9.2.1 Direct Impacts*

According to data compiled from the UP-SP Rail Merger Plan, forty-one communities across Texas will likely experience net job gains or losses in UP-SP employment for up to a three-year period should the merger be approved. (Table 9.1 identifies these communities, grouped according to the Comptroller's regional schema.) As Table 9.1 shows, the greatest employment impact from the merger will be felt on the Gulf Coast, which stands to lose 546 jobs. The bulk of these losses will occur along the upper Gulf Coast, with 452 in Houston alone. Next in likely employment impact is the Central Corridor, projected to lose 322 jobs in the aftermath of the merger. Nearly half of these losses (146) will occur in Palestine, while just under one-third will affect San Antonio. Smithville, the other community in the region facing significant job losses should the merger be approved, stands to lose 60 UP-SP positions. East Texas will record a modest post-merger loss of 41 jobs, most in Texarkana and Tyler.

The state's remaining three regions, on the other hand, should record post-merger job gains. By far the most significant gains will occur on the Border, where UP-SP employment should rise by 135 positions. Most of these jobs (123) will be concentrated in El Paso. Among the region's smaller communities, Eagle Pass will feel the greatest impacts, with 31 new UP-SP jobs. The Plains will gain 52 UP-SP jobs should the merger be approved (most in Dalhart and Sweetwater), while the Metroplex will gain 14 UP-SP jobs. Overall, Texas will lose 708 UP-SP jobs should the merger be approved.

It is important to bear in mind that in relative terms, the greatest employment impacts are likely to be felt in the smaller communities. For example, Houston's projected loss of 452 UP-SP positions, given the size of its employment base and economy, will go virtually unnoticed. In Palestine, on the other hand, the loss of 146 UP-SP jobs will proportionately have a much larger effect.

Table 9.2 details the regional change in payroll and retail spending likely to attend employment changes resulting from the merger. The Gulf Coast should lose nearly \$22 million in annual payroll and almost \$9 million in annual retail spending, followed by the Central Corridor with losses of \$12.8 million and \$5.1 million, respectively. East Texas stands to lose \$1.6 million in UP-SP annual payroll and \$600,000 in retail spending.

For the Border, employment changes related to the merger should boost annual payroll by \$5.4 million and add \$2.2 million in retail spending. The Plains is likely to add \$2.1 million in annual UP-SP payroll and \$800,000 in retail spending, while the Metroplex should gain \$600,000 in annual payroll and \$200,000 in spending. Overall, Texas will lose \$28 million in annual payroll and \$12.8 million in annual retail spending.

### *9.2.2. Indirect impacts*

In turn, gains or losses in retail spending will ripple through Texas' regional economies, generating secondary or "multiplier" impacts in the form of enhanced or diminished economic activity, household earnings and employment. Table 3 details these impacts for the state and its six regions. As a consequence of UP-SP job losses following the merger, the Gulf Coast can be expected to lose \$21.3 million in annual output, \$7.7 million in household earnings and 453 jobs. In the Central Corridor, output will likely shrink by \$12.5 million, while household earnings will decline by \$4.5 million. The region could also be expected to lose an additional 266 jobs. In East Texas, the secondary impacts of UP-SP employment changes include the loss of \$1.5 million in economic activity, \$500,000 in annual household earnings and 31 jobs.

The Border economy should increase in volume by \$5.4 million as a result of the merger, while households in the region would add \$1.9 million in annual earnings. Regional employment would rise by 115 jobs. The Plains economy stands to grow by \$2 million following the merger, adding \$700,000 in annual household earnings and 42 jobs. In the Metroplex, UP-SP employment changes would add \$500,000 in annual economic activity, \$200,000 in household earnings and 10 jobs. For the state as a whole, changes in SP-UP employment should reduce economic activity and household earnings by \$27.4 million and \$9.9 million respectively, and cost 583 jobs.

## *9.3 Impacts from Capital Expenditures to Upgrade UP-SP Lines*

### *9.3.1 Direct impacts*

Should the merger be approved, UP-SP has identified nearly \$782 million worth of capital expenditures necessary to upgrade lines. As Table 4 shows, just over \$200 million

of this is likely to be spent in Texas. The major beneficiaries of this spending are likely to be the Metroplex, followed by the Plains and Border regions. East Texas also will benefit from expenditures on line upgrades.

The Metroplex figures in three projects representing \$187.2 million of construction activity: The UP OKT line, from Herington, Oklahoma to Fort Worth; the UP T&P Line, from Fort Worth to El Paso; and, the Joint Line, from Big Sandy to Fort Worth. The Plains and Border regions will also benefit from improvements to the UP T&P line, while East Texas will be impacted by construction on the Joint Line. Separately, the Plains and Border regions will benefit from upgrades to the SP Golden State Route, which runs from Topeka, Kansas to El Paso.

### *9.3.2 Indirect impacts*

As with UP-SP employment changes, the expenditure of approximately \$200 million by the merged companies on line upgrades will generate secondary economic, income and employment impacts. Estimates of these impacts on the Metroplex, Border, Plains and East Texas regional economies are detailed in Table 9.5. Over the duration of construction related to the proposed upgrades, economic activity for the state as a whole will rise by nearly \$493 million. Of that, \$171 million will go toward household earnings. Additionally, just over 7,700 jobs will be created. Once again, the major beneficiary of these impacts is likely to be the Metroplex, followed by the Plains, Border and East Texas economies.

## *9.4 Impacts on Regional Cost Structure and Competitiveness*

Over the long run, the impacts detailed above and displayed in Tables 9.1-9.5 will be dwarfed by changes to each region's cost structure and competitiveness brought on by

enhanced or diminished rail infrastructure and service. These latter issues are addressed at length elsewhere in this report and are mentioned here only to underscore their role in regional development. Should, on the one hand, the proposed merger result in more efficient transportation of commodities and, consequently, lower shipping costs to manufacturers, then regions in Texas (and elsewhere in the US, for that matter) characterized by a strong UP-SP presence likely will become more attractive locations for capital investment and industrial development. If, on the other hand, the proposed merger diminishes workable competition in the rail industry and has the effect of raising shipping costs, then Texas and its SP-UP-rich regions could be placed at a competitive disadvantage vis-à-vis other locations in North America.

**Table 9.1**  
**Merger-Related UP-SP Job Gain or Loss (Net)**  
**for Texas Regions and Communities**

<i>Region/Community</i>	<i>Net Gain(+)/Loss(-)</i>
<b>Border</b>	<b>+135</b>
Alpine	-10
Brownsville	-2
Del Rio	+31
Eagle Pass	-4
Edinburg	-1
El Paso	+123
Harlingen	-9
Laredo	+7
<b>Central Corridor</b>	<b>-322</b>
Austin	+1
Flatonia	-1
Hearne	-7
Palestine	-146
San Antonio	-97
Smithville	-60
Taylor	-9
Waco	-3
<b>East Texas</b>	<b>-41</b>
Longview	+1
Lufkin	-2
Mineola	-2
Texarkana	-18
Troup	-3
Tyler	-17
<b>Gulf Coast</b>	<b>-546</b>
Amelia	-18
Beaumont	-9
Corpus Christi	-7
Dayton	-3
Galveston	-12
Gregory	-1
Houston	-452
Kingsville	+2
Spring	-19
Strang	-2
Victoria	-25
<b>Metroplex</b>	<b>+14</b>
Dallas	+7
Denison	+3
Fort Worth	+5
Grand Prairie	-1
<b>Plains</b>	<b>+52</b>
Amarillo	-1
Big Spring	-44
Dalhart	+36
Sweetwater	+63
<b>Total</b>	<b>-708</b>

Source: Compiled from "Labor Impact Exhibit," *UP-SP Rail Merger Plan*, Finance Docket No. 32760, 407-421.

**Table 9.2**  
**Estimated Merger-Related Net Payroll and Retail Spending**  
**Gain or Loss for Texas Regions**

<i>Region</i>	<i>Net Payroll Gain(+)/Loss(-)</i>	<i>Net Retail Spending Gain(+)/Loss(-)</i>
Border	+\$5.4 Mil	+\$2.2 Mil
Central Corridor	-12.8	-5.1
East Texas	-1.6	-0.6
Gulf Coast	-21.7	-8.7
Metroplex	+0.6	+0.2
Plains	+2.1	+0.8
Total	-28.0	-12.8

*Source:* Compiled from "Labor Impact Exhibit," *UP-SP Rail Merger Plan*, Finance Docket No. 32760, 407-421 and Table B-15, *Employment and Earnings*, US Department of Labor, Bureau of Labor Statistics, September 1995. Annual payroll estimates assume that rail industry workers earn \$826 per week and work 48 weeks per year. Annual spending estimates assume that 40 percent of payroll enters the economy as spending.

**Table 9.3**  
**Estimated Merger-Related "Multiplier" Impacts for Texas Regions**  
**Resulting from UP-SP Job Gains or Losses**

<i>Region</i>	<i>Output</i>	<i>Earnings</i>	<i>Jobs</i>
Border	+\$5.4 Mil	+\$1.9 Mil	+115
Central Corridor	-12.5	-4.5	-266
East Texas	-1.5	-0.5	-31
Gulf Coast	-21.3	-7.7	-453
Metroplex	+0.5	+0.2	+10
Plains	+2.0	+0.7	+42
Total	-27.4	-9.9	-583

*Source:* Compiled from "Labor Impact Exhibit," *UP-SP Rail Merger Plan*, Finance Docket No. 32760, 407-421, Table B-15, *Employment and Earnings*, US Department of Labor, Bureau of Labor Statistics, September 1995 and "Texas Table," *Regional Multipliers: A User Handbook for the Regional Input-Output Modeling System (RIMS II)*, US Department of Commerce, Bureau of Economic Analysis, p. 46. Multipliers used are those estimated for retail trade: output = 2.45, earnings = 0.88, employment = 52.1 jobs per \$1 million of spending.

**Table 9.4**  
**Proposed Merger-Related Expenditures on UP/SP Line Upgrades in Texas**

<i>Line Segment</i>	<i>Total UP/SP Expenditures</i>	<i>Expenditures in Texas</i>	<i>Regions Affected</i>
SP Golden State Route: Topeka-El Paso	\$145.8 Mil	\$14.0 Mil	Plains, Border
UP T&P Line: Fort Worth-El Paso	125.4	125.4	Metroplex, Plains, Border
UP OKT Line: Herington-Fort Worth	91.5	36.6	Metroplex
Joint Line: Big Sandy-Fort Worth	25.2	25.2	East Texas, Metroplex
Total	---	201.2	

Source: Center for Economic Development and Research.

**Table 9.5**  
**Estimated Merger-Related “Multiplier Impacts” on Texas Regions from Line Upgrades**

<i>Line Segment</i>	<i>Output</i>	<i>Earnings</i>	<i>Jobs</i>	<i>Regions Affected</i>
SP Golden State Route: Topeka-El Paso	\$34.3 Mil	\$11.9 Mil	536	Plains, Border
UP T&P Line: Fort Worth-El Paso	307.2	106.6	4,803	Metroplex, Plains, Border
UP OKT Line: Herington-Fort Worth	89.7	31.1	1,402	Metroplex
Joint Line: Big Sandy-Fort Worth	61.7	21.4	965	East Texas, Metroplex
Total	492.9	171.0	7,706	---

Source: Center for Economic Development and Research and “Texas Table,” *Regional Multipliers: A User Handbook for the Regional Input-Output Modeling System (RIMS II)*, US Department of Commerce, Bureau of Economic Analysis, p. 46. Multipliers used are those estimated for repair and maintenance construction: output = 2.45, earnings = 0.85, employment = 38.3 jobs per \$1 million of spending.

## ***Section 10: Safety<sup>1</sup>***

### *10.1 Introduction*

This section considers the impacts of the proposed Union Pacific/Southern Pacific merger on public safety in Texas. In particular, assessments are made on the merger's possible impacts on highway-rail grade crossings. Assessments of the merger's impacts on highway safety related to increased use of over-the-road trucks, the shipment of hazardous chemicals and the presence of Mexican trucks on Texas roadways are addressed in other sections of this report.

### *10.2 Merger Impacts on highway-rail grade crossings*

Safety is a by-product of good engineering. Under public ownership, transportation safety concerns almost always receive top priority in any investment decision. Within the private sector safety risks are sometimes taken when revenue "short-falls" are experienced. One of the few remaining controls states and federal agencies have over railroad operations is in the area of public safety. Federal rules and regulations are monitored by both federal and state agencies. If a railroad does not meet the standards of the regulation it may be fined or restricted in its operation. Just as with any other private concern, a well engineered and financed railroad usually has the best safety record.

Since Texas has the most railroad miles and a very high percent of the nation's annual vehicle miles driven, it is not surprising that the state is the nation's leader in highway-rail accidents. As noted in other sections of this report, railroads operating in Texas move significant volumes of hazardous materials. Given the number of daily hazardous material

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<sup>1</sup> This section was extracted from a study by Mr. Hoy Richards of Richards and Associates. The full text

train movements, it is expected that a derailment, possibly resulting in a spill, will occur occasionally.<sup>2</sup>

The Railroad Commission of Texas, through a partnership with the Federal Railroad Administration, has responsibility for rail safety. History has shown that as individual railroads have slipped into financial difficulties, safety has deteriorated. A financially sound railroad will provide a safer environment for its employees and the public than a railroad that is fighting for its financial survival.

The Southern Pacific Railroad does not have one of the best safety record among Class I railroads. Highway-rail safety improvement projects on the SP are considered difficult to implement on occasion due to lack of personnel and scheduling of work crews. On the other hand the Union Pacific has one of the best safety records among all railroads. Moreover, the Union Pacific has a reputation of working with local communities and the Texas Department of Transportation to improve safety at highway-rail grade crossings.

The proposed Union Pacific/Southern Pacific merger will create redundancies in rail routes. It has been suggested, though not necessarily by the merger applicants, that these redundancies could lead to track abandonment. These potential abandonments could enhance the ability of local communities in their effort to close and/or consolidate under-used highway-rail grade crossings. Several Texas communities are served by both the Union Pacific and Southern Pacific railroads. The closure of under-used grade crossings would save Texas taxpayers not only the capital cost of warning device improvements but also the state portion of continuous warning device maintenance costs.

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of Mr. Richards report is attached as Appendix B.

<sup>2</sup> A breakdown of rail and truck hazardous materials incidents is included in Table 4.3 on page 4-9.

In addition, railroad relocation and consolidation projects in several Texas communities could be assisted by the merger. For example, the Brownsville railroad relocation and the Texas A&M campus rail relocation projects involve both the UP and SP. Where railroads share in the responsibility for maintenance of terminal facilities, such as in Houston and Corpus Christi, strong, financially secure railroads will enhance public safety through adequately funded rail infrastructure maintenance programs.

### *10.3 Conclusion*

The proposed merger of the Union Pacific/Southern Pacific railroads could serve to improve highway-rail grade crossing safety in Texas. The Union Pacific has the financial wherewithal to ensure that safety-based projects are completed and maintained. Inasmuch as the merger may also encourage the abandonment of little-used trackage, it is expected that communities can look to consolidate or close unwanted highway-rail grade crossings with attendant safety improvements. In addition, the merged railroad may also be able to accommodate rail relocation projects in areas currently served by both applicants.

If the merger is opposed, the Railroad Commission should request documentation from the Southern Pacific specifying how they will finance safety-related projects. The Railroad Commission may wish to direct its rail safety staff, in cooperation with the Texas Department of Transportation, to further detail the impacts of the merger on highway-rail grade crossing elimination and consolidation.

## *Section 11: Competition<sup>1</sup>*

### *11.1 Introduction*

In this section we will consider elements of rail competition not covered in previous sections of this report. We will discuss the parallel nature of this merger compared to the recently-approved merger of the Burlington Northern and Santa Fe railroads. This will be followed by a brief consideration of the behavior pattern of firms in an oligopoly market. An evaluation is made regarding the degree to which the proposed agreement between the Union Pacific/Southern Pacific and Burlington Northern/Santa Fe will address the anti-competitive features of the proposed merger. Finally, an overall assessment of the merger's competitive consequences is presented.

### *11.2 Comparing mergers*

Much has been made of the inevitability of the merger of the Union Pacific and Southern Pacific mergers once the Burlington Northern/Santa Fe merger was approved. However, there are important distinctions between these mergers.

The Burlington Northern/Santa Fe merger has been characterized as a "vertical" or "end-to-end" merger. This signifies that, in general, the merged railroads served different markets and combining the two systems will lengthen their hauls and extend service territories.<sup>2</sup> In contrast, a "parallel" or "horizontal" merger is one in which the merging carriers have significantly duplicative routes and serve many of the same markets. In

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<sup>1</sup> Many of the issues in this section are drawn in whole or in part from the competitive analysis prepared by Dr. William Tye. The reader is strongly encouraged to read Dr. Tye's report, which is attached as Appendix A.

<sup>2</sup> See footnote 5 of Dr. Tye's report.

Table 11.1 below<sup>3</sup>, a comparison of the market coverage of the listed railroads before and after merger indicates that while the Burlington Northern/Santa Fe combination substantially increased the market coverage for these carriers, the Union Pacific/Southern Pacific merger gains very little market over pre-merger coverage. While any major rail merger will have vertical and horizontal elements, concerns are raised about anti-competitive effects when the service territory is not substantially increased. The Union Pacific/Southern Pacific merger appears to be more about market consolidation than market extension -- especially in the Texas-Louisiana, Texas-Midwest corridors.

**Table 11.1**  
**Comparison of Major Western Rail Systems**  
**Before and After BN-SF Merger and**  
**Before and After Proposed UP-SP Merger**  
**Percentage of Total Population and Income in Areas Served**

<b>Rail System</b>	<b>No. of areas served</b>	<b>Percent of Population</b>	<b>Percent of total income</b>	<b>Percent of agriculture income</b>	<b>Percent of mining income</b>	<b>Percent of manufacturing income</b>
Pre-merger Burlington Northern	47	23.09	22.20	34.96	38.48	22.46
Pre-merger Santa Fe	24	25.12	26.42	27.04	40.05	24.73
Existing BN-SF	60	37.26	37.44	51.24	49.50	36.37
Proposed BN-SF	69	41.76	41.01	55.73	60.99	38.49
Existing Southern Pacific	37	31.39	31.34	29.92	47.18	29.34
Existing Union Pacific	66	38.85	38.52	46.23	55.93	38.04
Proposed UP-SP	75	42.20	41.40	53.48	63.14	40.01

<sup>3</sup> The data presented here were compiled by Dr. Charles Zlatkovich. Dr. Zlatkovich's report is attached as Appendix C.

### *11.3 Firm behavior in an oligopoly*

The proposed merger has the effect of reducing the number of Class I rail competitors in the western United States from three to two. In those markets currently served only by the Union Pacific and Southern Pacific, the market is reduced from two to one competitor. However, the merger applicants contend that granting the Burlington Northern/Santa Fe a combination of trackage and haulage rights will maintain the presence of at least two competitors for these two-to-one markets. A review of the professional and academic literature<sup>4</sup> regarding firm behavior in an oligopoly presents little evidence for predicting the competitive consequences of the proposed merger. The literature documents behavior ranging from intense competition to collusion.<sup>5</sup>

The merger applicants have claimed that the “character of rivalry” is the determining factor guaranteeing that competition will continue. However, the experiences noted in the literature suggest that the “character of rivalry” is highly idiosyncratic to specific markets and is often mercurial. Numbers do count. In our opinion, competition will be diminished by the removal of a third competitor.

### *11.4 The BNSF-1 agreement*

In an explicit acknowledgment of the competitive problems created by the proposed merger, the applicants have negotiated an agreement with the Burlington Northern/Santa Fe to enter into a future agreement for a series of trackage or haulage

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<sup>4</sup> See Dr. Tye’s report in Appendix A.

<sup>5</sup> This range of behavior is reported to include rail firms.

rights<sup>6</sup> to solve anticompetitive consequences of the merger. However, the agreement does not appear to provide any legal compulsion for the Burlington Northern/Santa Fe to actually initiate any services.<sup>7</sup> Moreover, if BNSF chooses to provide services based on the proposed agreement, we have additional concerns based on three broad areas: What this agreement should be and is not, features of the agreement that could cause service at some disability, and limitations on the number of customers that could be served via trackage rights.

#### *11.4.1 What the agreement should be and is not*

The BNSF-1 agreement is not a trackage rights agreement. The Union Pacific/Southern Pacific and Burlington Northern/Santa Fe state they will make a “best effort” to complete the terms of the trackage rights agreement by June 1, 1996 -- well after the date on which the Commission needs to render its position. Conspicuous in its absence, compared to other trackage rights agreements that have been filed with the ICC (STB), is an operating plan that specifies how operations are to be conducted by the joint carriers. For example, as noted earlier in this analysis, the Union Pacific has proposed to operate “directional traffic” between Houston and St. Louis in which all south bound UP/SP trains will be routed over existing Southern Pacific lines, while northbound UP/SP trains will operate over existing Union Pacific tracks. Yet, the proposed agreement calls for granting trackage rights to the Burlington Northern only over Southern Pacific lines

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<sup>6</sup> Trackage rights allow a tenant railroad to utilize a landlord railroad’s tracks for a fee to provide service to shippers located on the landlord’s tracks. In this case, haulage would refer to the BNSF contracting with the UPSP to transport BNSF equipment to and from customer’s locations to an agreed-upon interchange point.

<sup>7</sup> Once service begins, the carrier serving via trackage rights may assume common carrier obligations. However, in the post-Staggers act rail marketplace, common carrier obligations do not carry the same weight of performance they once did.

along this route. How the Burlington Northern/Santa Fe is supposed to effectively compete on service when their trains will be going against the flow of traffic 50 percent of the time is not addressed.<sup>8</sup> Without fairly detailed operating plans, an assessment of the Burlington Northern/Santa Fe's ability to compete aggressively is simply not possible. We are being asked by the merger applicants to trust them to develop an agreement that will provide effective competition. Yet, the Union Pacific/Southern Pacific has every incentive to engage in competitive behavior in subsequent negotiations to limit the level of service that can be offered by the Burlington Northern/Santa Fe.

Another critical element missing from the proposed agreement is information regarding switching charges that may be levied on the Burlington Northern/Santa Fe by the Union Pacific/Southern Pacific for gaining access to those customers who qualify for access through the trackage rights. The proposed agreement calls for switching charges to be set at rates that will recover costs plus "reasonable" returns. Railroad history tells us that one carrier's reasonable return is another's extortion. Under the guise of earning a "reasonable" return, the Union Pacific/Southern Pacific could ensure that Burlington Northern/Santa Fe's costs will always be higher than its own.

#### *11.4.2 Service at some disability*

There are several elements of the BNSF-1 agreement that we believe could limit the ability of the Burlington Northern/Santa Fe to compete effectively for traffic from customers accessed through trackage rights. In most every trackage rights agreement, the

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<sup>8</sup> As noted in this report and the merger application, the Houston to St. Louis route is very important for chemical and plastics shippers located on the Texas Gulf Coast.

tenant railroad<sup>9</sup> is subject to the exclusive direction and control of the landlord railroad. This includes giving the landlord unrestricted power to change management and operations. While the proposed agreement calls for Burlington Northern/Santa Fe to receive “equal dispatch without discrimination,” many of the experts we consulted suggest that tenant carriers do not always get equal dispatch. In an apparent acknowledgment of this possibility, the agreement calls for the creation of a joint service committee to regularly review this issue. However, there is no information on the make-up of the committee or specification of its authority to correct “unequal” dispatch.<sup>10</sup>

Where the Burlington Northern/Santa Fe believes improvements in infrastructure need to be made, the agreement provides a mechanism for addressing these needs -- at the BNSF’s expense. However, these needs must be identified within the first year of the trackage rights agreement. We are very concerned that during the first year of the proposed trackage rights agreements, the Burlington Northern/Santa Fe will be preoccupied with the details of its own merger and thus unable to assess all of the infrastructure improvements needed over the several-thousand miles of tracks covered in the proposed trackage rights. Failure to identify these needs could hinder the Burlington Northern/Santa Fe’s ability to effectively compete in these markets.

The proposed agreement also calls for the Burlington Northern/Santa Fe to be able to request terminal support services including fueling, running repairs and switching in conjunction with serving customers accessed through the trackage rights. Of course, access to these services is based on availability and capacity of Union Pacific/Southern

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<sup>9</sup> The tenant railroad is the recipient of the trackage rights, while the landlord railroad owns the tracks.

<sup>10</sup> Rail experts have noted that it is difficult to prove discrimination in dispatch, but it often exists.

Pacific resources. We consider the potential reliance upon the Union Pacific/Southern Pacific by the Burlington Northern/Santa Fe for these services a lessening of the BNSF's ability to manage its operations and compete aggressively for traffic.

A particularly egregious example of the proposed agreement limiting the ability of the competing railroad (BNSF) to effectively manage its own operations is the restriction on changing the type of service that Burlington Northern/Santa Fe can offer its potential customers. The agreement requires that 45 days prior to initiation, Burlington Northern/Santa Fe must elect one of the following as the means by which it will provide service: 1) direct service, 2) service through reciprocal switching, and 3) use of a third party for switching with Union Pacific/Southern Pacific's prior approval. However, once this choice is made, it cannot be changed for five years. This provision could severely limit the Burlington Northern/Santa Fe's ability to adapt to changing market conditions, thus lowering their effectiveness as a competitor.

Industry experts have also called the "quality" of the Burlington Northern/Santa Fe's connections to eastern rail carriers granted through the trackage rights to St. Louis into question. If there are problems with this connection, it could, again, limit the Burlington Northern Santa Fe's ability to compete.

In some markets, the agreement allows the Burlington Northern/Santa Fe to choose haulage agreements for providing the claimed competitive access. These markets include Tyler, Defense, College Station, Great Southwest, Victoria and Sugar Land. In addition, the entire route from Houston through Corpus Christi to Brownsville/Harlingen may be served through haulage arrangements. But haulage arrangements do not constitute effective competition.

Individually, these concerns raise some reservations about the ability of the Burlington Northern/Santa Fe to provide service that would be competitive with the Union Pacific/Southern Pacific. Together, they cast serious doubt about the quality of competition in a post-merger market. The Southern Pacific has survived for years by being the low-cost, low-service carrier. There is no indication the Burlington Northern/Santa Fe will be willing to adopt low-ball pricing to attract customers to lower service levels. With the restrictions placed on the Burlington Northern/Santa Fe's operations by the agreement, a best case example could be characterized as "service with some disability." The worst case could be totally ineffective service competition. Neither is in the best interests of Texas.

#### *11.4.3 Limitations on customer access*

Perhaps the feature of the proposed agreement that causes the greatest concern is the limitation on customers who will be granted access to a competing carrier (BNSF) under the trackage rights. The only customers who would qualify for competitive access would be those who are currently served by both the Union Pacific and Southern Pacific. If you are served by only one of these railroads, you remain captive to a single carrier. Similarly, if you are served by a second carrier, other than Union Pacific or Southern Pacific, Burlington Northern/Santa Fe will not be granted access. Therefore, customers moving from three competitive options to two are not guaranteed continued access to a third carrier. Moreover, access to the Burlington Northern/Santa Fe is further restricted to industries within existing reciprocal switching districts served by only the Union Pacific and Southern Pacific. As noted in a previous section of this report, any new development outside of existing switching districts would be captive to UP/SP. This could effectively

eliminate future rail competition for many areas of the state -- particularly rural areas. Furthermore, the restrictions on customer access could result in traffic densities for the Burlington Northern/Santa Fe that are too low to warrant vigorous competition. This concern is heightened by a close inspection of the proposed agreement. **The list of cities whose customers will have access to the Burlington Northern/Santa Fe does not include Houston,<sup>11</sup> Dallas and Fort Worth -- the state's largest industrial areas.<sup>12</sup>**

Limiting service choices, the potential to create service barriers, and denying competitive access to many existing and future shippers raises serious questions about the BNSF-1 agreement's ability to provide effective competition to replace an independent service provider. Choosing the Burlington Northern/Santa Fe as the recipient of these proposed trackage rights causes the highest possible level of market concentration. Moreover, the stakes are too high and the remedies too onerous to blindly trust carriers to work out the details of how to provide competition at some time after the Commission renders its position on the merger. Therefore, we believe that the BNSF-1 agreement does not provide sufficient guarantees of viable, effective competition to the merged Union Pacific/Southern Pacific railroad.

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<sup>11</sup> The description for trackage rights in eastern Texas and Louisiana notes that the rights are for overhead traffic only except for local access to industries served by UP and SP and no other railroad at Baytown, Amelia, Orange, Mont Belvieu and Eldon. The Houston to Memphis grants list no Texas points that will be open to the BNSF.

<sup>12</sup> We do note that there are references to granting access to BNSF for all 2 to 1 points via trackage rights, haulage or other contractual means. For example, as observed in Section 3, the electricity generating plants at Elmendorf are to be included in subsequent trackage rights even though this community is not specifically listed in the agreement. However, this acknowledgment did not occur until after the shipper approached the Union Pacific. This confirms our concern that the level of detail needed to evaluate this agreement's competitive impacts is simply not present. In addition, we are uncertain as to how a shipper might be treated, and what the shipper's recourse would be, if they discover their community is not listed after the merger is approved.

### 11.5 Conclusions: Overall assessment of competitive consequences of the merger

The table below provides a summary of our concerns about the competitive consequences of the proposed merger.

**Table 11.2**  
**Overall Assessment of Competitive Consequences of the Merger**

Facts, Claims, and Issues	Responses and Comments
a. The merger is end-to-end for UP for the El Paso-LA-Bay Area-Portland segment, and Tucumcari Line components of the SP system.	a. To the extent that the merger allows UP to “fill in” its route network via these extensions, this seems to fall into the category of mergers the Interstate Commerce Commission has previously approved.
b. The merger is “massively parallel” for the Central Corridor (St. Louis to Bay Area) and Gulf (TX and LA) to St. Louis via AR, Corridor.	b. Applicants’ expected route-strengthening, (quasi-) failing firm, and operating efficiency arguments ignore the substantial reduction in competition in the “massively parallel” geographic markets that make up the preponderance of the SP system.
c. The Agreement with BN/SF is designed to solve parallel problems by granting overhead traffic rights to BN/SF for these latter two corridors, plus local rights to serve all “two-to-one” shippers.	c. The choice of BN/SF for the trackage rights has the effect of reducing the major rail systems in the West from three to two; the need for traffic density and the particular limitation to a very small subset of the traffic in the “massively parallel” corridors effectively prohibit BN/SF from replacing the competition lost by SP ( <i>i.e.</i> , BN/SF will be even more handicapped competitively in these markets than SP).
d. A large number of city pairs will have competitors reduced from three to two in markets where the merger is “massively parallel.”	d. Defining relevant markets to be service to an individual shipper’s facility (rather than larger relevant markets such as BEA, county, state, region, O-D corridor, Western U.S., <i>etc.</i> ) for the purpose of attaching pro-competitive conditions obscures the loss of “regional rail competition,” the relevant market cited by the <i>Interstate Commerce Act</i> .
e. Applicants have advanced the following claims to address the “massively parallel” problem: <ul style="list-style-type: none"> <li>• Academic studies showing that the reduction from three to two is meaningful cannot be relied upon;</li> </ul>	e. Each of the five arguments about the “massively parallel” issue has problems: <ul style="list-style-type: none"> <li>• The Department of Justice (DOJ) guidelines, the academic literature on railroads, and the academic literature on concentration generally are contrary to these expected claims. Concentration indeed matters.</li> </ul>

<p>(Section e cont'd)</p> <ul style="list-style-type: none"> <li>• Not much traffic is affected by the three-to-two problem;</li>   <li>• Competition by SP is redundant: stronger against strong is better than strong against strong and weak;</li>   <li>• Shippers seem to care more about extended single-line service than competition, especially by a weak carrier;</li>   <li>• The Commission has frequently ruled that only two carriers are needed to achieve effective competition; and</li>   <li>• Coordination and collusion are unlikely in rail transportation markets.</li> </ul>	<p>(Section e cont'd)</p> <ul style="list-style-type: none"> <li>• One must be wary of using an “accordion” in the definition of the relevant market: Under the accordion theory, (1) when discussing the benefits of extended single-line service, and the difficulties of SP, the relevant market is the entire West or the rail corridors where all three carriers compete; (2) when looking at the reduction in competition between SP and UP, the relevant market is the lowest possible level of aggregation (direct service, possibly by reciprocal switching, to the facilities of a single shipper’s plant).</li> <li>• One must also be careful not to apply a “stealth (or quasi-) failing firm” defense without meeting the DOJ/FTC Guideline tests; SP has been the “weak runt of the litter” for as long as anyone can remember (SF also unsuccessfully invoked the failing firm defense for SP in the SF/SP merger); once again, one must be careful not to use the accordion (SP competes in large relevant geographic markets where it is allegedly being crushed by BN/SF when SP is being made to look weak, but SP competes in very narrowly defined markets—<i>i.e.</i>, its shippers are closed to switching—when it is alleged to compete with UP); again, one should not confuse the end-to-end markets (where the principal competitor is BN/SF) with the “massively parallel” markets (where the principal competition is between UP and SP).</li> <li>• The benefits of route extensions in the end-to-end markets should not obscure the reduction in competition in the “massively parallel” markets.</li> <li>• The Commission has never before considered a merger with such “massively parallel” dimensions; the closest thing to it is the proposed SF/SP merger, which the Commission rejected.</li> <li>• Claims of lack of railroads’ ability to coordinate are contradicted by the rail industry’s history of antitrust offenses and by the kinds of benefit claims applicants tried to make (when discussing the prospects for collusion and coordination, applicants tend to characterize themselves as having excess capacity and large fixed costs that create incentives for price competition; when they discuss merger benefits, applicants tend to describe themselves as hobbled by capacity constraints and inadequate investment).</li> </ul>
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<p>f. UP will be alleged to get stronger because of:</p> <ul style="list-style-type: none"> <li>• Extended routes and more single-line service (applies chiefly to end-to-end part of merger);</li> <li>• Operating efficiencies (applies to extended single-line service, via extended routes) and reduced route circuitry and other operating efficiencies.</li> </ul>	<p>f. The reduced circuitry argument makes the “Williamsonian Welfare Tradeoff” (efficiency gains must more than compensate for reduced competition) clearest in the three-to-two corridors.</p>
<p>g. SP will be alleged to get stronger chiefly because UP is able to fix SP’s main problems:</p> <ul style="list-style-type: none"> <li>• Service problems (inadequate management?).</li> <li>• Capital constraints.</li> </ul>	<p>g. The STB should be careful not to reward alleged mismanagement and unwillingness by SP’s owner to commit capital with a competition-reducing merger. Even if these claims are true, the real issue is: Are there any less anticompetitive ways to replace SP’s management, get access to capital markets, and achieve the claimed efficiency gains?</p>
<p>h. The merger has the additional benefit of filling BN/SF’s route system and, in particular, creating two single-line carriers along the entire Pacific coast.</p>	<p>h. These are the types of merger benefits the ICC tended to encourage.</p>
<p>i. Fairness dictates that the STB approve this merger as a competitive response to the BN/SF merger.</p>	<p>i. BN/SF was much more an end-to-end merger than UP/SP. This is evidenced by the fact that Applicants have agreed that extensive trackage and/or haulage rights are required to cure the anticompetitive consequences of the merger. The conditions imposed by the BN/SF merger, to the contrary, were rather limited. Indeed, most of the complaints by shippers addressed concerns over route foreclosure resulting from the end-to-end dimensions. Fairness dictates only that UP be allowed the end-to-end component of the merger, and does not go to the issue of the parallel dimensions.</p>

## ***Section 12: Southern Pacific Rail Corporation<sup>1</sup>***

### *12.1 Summary*

Unlike its competitors, Southern Pacific (SP) has largely failed to share in the industry revitalization that has occurred since the passage of the Staggers Act in 1980. As a result, it has garnered a reputation for markedly inferior service, and its operations are considerably less efficient than those of the Union Pacific and Burlington Northern/Santa Fe railroads. At the same time, SP has been unable to generate sufficient cash flow to finance the significant capital expenditures necessary to improve its efficiency and upgrade customer service to make it competitive.

Southern Pacific has largely depended on sales of nonoperating real estate assets to finance its capital improvement program. While the company has about \$1.5 billion in real estate yet to be sold, its ability to raise cash in this manner is far from assured, given the depressed real estate market in California (where most of the properties are located) and other uncertainties associated with the sales.

In the early 1990s, there was considerable hope in the investment community that Southern Pacific would be able to reduce its costs, especially after the company's improved profitability in 1994. By summer 1995, however, enthusiasm over SP's prospects waned considerably as it failed to cut costs as quickly as anticipated and it became apparent that the newly merged BN/SF would divert a significant amount of traffic from SP.

SP is clearly the most financially fragile competitor among the Western railroads, and its ability to compete in the coming years depends on events beyond its control.

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<sup>1</sup> This section was prepared by Dr. William Avera and Dr. Charles Smaistrila.

Absent the proposed merger, the company is unlikely to continue in its current form. It is therefore not realistic to assume that the status quo -- with three major Western railroads competing for business in Texas -- will be maintained if the proposed merger is not consummated. Accordingly, the uncertainties associated with opposing the merger are as significant as those of supporting it.

## *12.2 History and Background*

Southern Pacific Rail Corporation is the parent company of the Southern Pacific Transportation Company (SPT) and Rio Grande Holding Company. In 1994, the company generated more than \$3.14 billion in revenues, making it the sixth-largest railroad in the U.S. in terms of revenue. The company employs some 18,000 people and has over 14,500 miles of track along five main routes, stretching from the West Coast to the Midwest via two major corridors. It is the leading carrier of intermodal (truck-to-train and truck- or train-to-ship) freight in the U.S. Its intermodal business continues to grow, and its international container yard in Southern California is the country's largest. SPT also serves six cities on the Mexican border, the most of any U.S. railroad.

Southern Pacific (SP) dates back to 1861, when four Sacramento merchants founded the Central Pacific Railroad. Construction began in Sacramento in 1863. In 1869 Central Pacific reached Promontory, Utah, where its rails were spiked to those of the Union Pacific (which had built westward from Omaha), thus completing the first transcontinental railway. By building new track and buying other railroads -- including the Southern Pacific in 1868 (a San Francisco-to-San Jose line founded in 1865) -- the Central Pacific expanded throughout California, Texas, and Oregon. The two railroads formally merged in 1885 under a holding company called Southern Pacific Company.

The Rio Grande was founded in 1871 as the Denver and Rio Grande in an effort to build a line from Denver to Mexico City. An 1882 attempt to extend a line through Salt Lake City to San Francisco eventually led to bankruptcy. Renamed the Denver and Rio Grande Western, the railroad emerged from receivership in 1924.

Union Pacific (UP) bought control of Southern Pacific in 1901, but was ordered (on antitrust grounds) by the Supreme Court to sell its stake in 1913. In 1932 Southern Pacific bought control of the St. Louis Southwestern Railway, gaining an entrance to St. Louis.

In 1983, facing increasing competition from the Union Pacific and Burlington Northern railroads, Southern Pacific merged with competitor Atchison, Topeka & Santa Fe Railway to form Santa Fe Southern Pacific Corporation. The ICC reviewed the case from 1983 to 1988, during which time the company was held in a trust. In 1988 the ICC deemed the merger anticompetitive and disallowed it. As a result, the Southern Pacific side was spun off and sold to RGI -- the holding company of the Rio Grande Railroad, owned by Denver billionaire Philip Anschutz -- for \$1.02 billion in cash and \$780 million in assumed debt. A public stock offering in 1993 raised cash to reduce RGI's debt. Today, the Anschutz Company owns 32 percent of Southern Pacific's outstanding stock, with Morgan Stanley (a major investment banking firm) controlling an 8 percent interest.

In 1993, Southern Pacific hired Ed Moyers -- who had recently retired from Illinois Central -- as president and chief executive officer. Moyers had a reputation as a prudent cost cutter, with a history of streamlining operations and increasing utilization. Under the Moyers management team, the railroad rationalized its physical plant through

the sale of low-density lines, consolidation of rail yards, and the reduction of labor, maintenance, and personal injury costs.

Since the end of 1992, Southern Pacific has reduced its headcount by more than 4,000 employees and has undergone some of the most extensive efforts of any Class I railroad to upgrade its locomotive fleet. In 1993 and 1994, the company purchased or overhauled more than 500 locomotives -- about 25 percent of its current fleet -- and ordered 282 new AC traction locomotives for 1995. As a result of the new and improved locomotives, outages of the power units fell from 18 percent in 1992 to 10 percent in 1994.

In addition, during the Moyers tenure, the operating ratio improved significantly, from 96.5 percent in 1993 to 89.0 percent in 1994.<sup>2</sup> The company planned to further reduce its operating ratio to 88 percent for 1995 and 85 percent in 1996, but these targets are proving to be unrealistically aggressive.

Immediately after Moyers's arrival at Southern Pacific, the reorganized company had a 30.8-million share initial public offering, at \$13.50 per share, and concurrently sold \$375 million of senior notes. The net proceeds, which came to some \$757 million, were used to repay \$481 million in high-coupon debt, buy back operating leases, and redeem the company's preferred stock. In 1994 the company had a secondary offering of 25 million shares at \$21 per share. The net proceeds of more than \$500 million were used to pay off debt and for general corporate purposes. Due in part to the two stock offerings

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<sup>2</sup> The operating ratio shows the percentage of a railroad's operating revenues that are consumed by operating expenses. At one glance, it enables one to determine, from a comparison of results over several years, whether the management is becoming more or less efficient in its control of expenses.

and proceeds from the sale of real estate, the long-term debt to capital ratio decreased from more than 100 percent in 1992 to about 50 percent in 1994.

In early 1995 Mr. Moyers resigned for health reasons, and Jerry Davis, chief operating officer of CSX Transportation, took over the helm at SP. Mr. Davis has assembled a new management team.

Although Southern Pacific's cash flow is greatly improved, it has not been sufficient to meet capital expenditure requirements. In order to generate more cash, the company has been selling real estate assets not essential to the railroad's operations. The company estimates that it has about \$1.5 billion in real estate yet to be sold, including transit corridors which are expected to be sold off over the long term. From 1992 through 1994, Southern Pacific has received cash proceeds of nearly \$760 million from real estate sales.

### *12.3 Comparison of SP with Its Primary Competitors*

The ten years following the passage of the Staggers Act in 1980 saw a marked revitalization of U.S. railroads. The improvement in their financial performance did not, however, result from revenue and market share growth, but rather from massive efforts to downsize fixed plant and equipment, improve productivity and asset utilization, and reduce employment levels through labor buyouts. Although compensation per employee rose 60 percent during the same period, most railroads offset much of the increase in wages as Class I rail employment dropped 50 percent, reflecting equipment mechanization, computerization, and better management practices.

Southern Pacific did not closely follow the industry trend of the 1980s, and has largely failed to share in the industry revitalization. For example, between 1980 and 1989

the miles of road owned by Class I railroads in the U.S. declined by 25 percent. Over a comparable period, Southern Pacific mileage declined only 8 percent. Improved equipment utilization allowed Class I railroads to reduce their freight car fleet by 42 percent, even though gross ton-miles actually increased during the period. But Southern Pacific cut back its freight car fleet by only half as much, or 21 percent.

In addition, Southern Pacific must contend with a major strategic weakness: the low proportion of high rated and stable commodity traffic on its system. Although concentrations of chemicals and petroleum traffic are above the industry average, SP lags its competitors in coal, grain, and automobiles. Furthermore, the company's large proportion of intermodal traffic is subject to competition from trucks and other railroads. Southern Pacific has entered into agreements with major truckload carriers to handle international and domestic intermodal traffic. It may thereby benefit from a sector of business with good growth prospects because shippers, steamship companies, and truck lines can be expected to shift freight from highways to railroads if the industry improves service quality while offering lower prices than trucks. But intermodal traffic -- more so than a commodity traffic like coal -- tends to be cyclical, varying with general economic conditions. SP's reliance on it thus makes it more vulnerable to economic fluctuations than its competitors.

Southern Pacific's high operating cost structure -- and a persistent lack of adequate low-cost, reliable locomotive power to maintain schedules -- amplify its significant competitive disadvantages. The former Santa Fe, for example, had a similar traffic mix, but its utilization and revenue generation were higher than SP's. And while the two

railroads had a comparable number of employees per route mile, SP carried less revenue-producing freight per route mile.

Although Southern Pacific has recently improved labor efficiency and traffic density, its competitors have been making greater strides. For example, SP's revenue-ton-miles (RTMs) per employee grew 22 percent, to 5.0 million from 1989 to 1992. Over the same period, however, Santa Fe increased 40 percent to 6.0 million, and Union Pacific increased 26 percent to 7.2 million. Even more important, Southern Pacific lagged further behind in RTMs per route mile, the key measure of the ability to create profitable traffic density. Over the same four-year period, SP increased RTMs per mile by only 15 percent, to 6.6 million. By contrast, with its similar traffic mix, Santa Fe's density increased over twice as much, or 34 percent, to 9.8 million RTMs per mile. And Union Pacific, with its coal business benefiting under the Clean Air Act, saw its density increase 31 percent.<sup>3</sup>

Southern Pacific's inability to markedly improve the efficiencies of its operation explains much of its poor performance relative to the largest two western railroads. Table 12.1 compares the operating ratios of Burlington Northern and Union Pacific with Southern Pacific's operating ratio for the years 1989 through 1995. Not only are Southern Pacific's operating expenses consistently higher, relative to its revenues, throughout the period, it also incurred operating losses until 1994. Even in that year, its performance was significantly worse than the other two railroads', and in 1995, the company failed to show year-over-year improvement.

In spring 1995, Southern Pacific noted in its report to the Securities and Exchange Commission (SEC) that its railroad operations have not produced "sufficient cash flows to

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<sup>3</sup> Standard and Poor's, *Creditweek* (Aug. 16, 1993).

meet its capital expenditure, debt service and other cash needs.”<sup>4</sup> Table 12.2 compares the net incomes of Burlington Northern, Santa Fe, and Union Pacific with that of Southern Pacific, measuring net income on a before-tax basis excluding gains from real estate sales. The data in the table quickly verify Southern Pacific’s appraisal of its cash flow problems. It posted a loss every year except one -- 1994 -- when it made a relatively small profit.

The table also shows the relative strength of the other railroads. Union Pacific shows the consistently highest earnings of the four railroads. Except for a slump in earnings in 1991, Burlington Northern has also shown strong earnings for the period beginning in 1989.

The lower overall income reflects Southern Pacific’s inability to realize nearly as much earnings from its investment in track as its competitors do. Table 12.3 compares the amount of income SP earns per mile of track with what BN and UP have been able to earn during the period 1989–94. Even when SP’s lower track mileage is taken into account, it has persistently weak earnings.

Moreover, it may take time for Southern Union to build revenue by bringing back customers that over the years have been lost to other western railroads because of poor service. The company estimates that \$300 million of revenue per year is purposely routed

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<sup>4</sup> Southern Pacific Transportation Co., Form 10-Q (Mar. 31, 1995). Essentially identical language appears in the company’s second and third quarter reports.

around SP because of service problems.<sup>5</sup> And while new locomotives will most likely improve service reliability, the railroad has made this promise to the customer before and often fell short. Accordingly, it would likely take time for demonstrated improvements in service to woo back substantial business.

In its SEC Form 10-Q reports last year, Southern Pacific did not offer any encouragement of an immediate turnaround in its earnings prospects. To the contrary, it cautioned investors that

for the next few years, cash flows generated by rail operations, while expected to continue to improve, will be insufficient to meet [Southern Pacific's] cash needs including acquisition of equipment and other necessary capital expenditures.<sup>6</sup>

Southern Pacific explained further that, to meet its cash needs, it has relied on proceeds from real estate and other asset sales and on borrowings. To satisfy its future cash requirements and the financial covenants in its credit facilities, the company conceded that it must further improve its operating results, obtain additional equipment financing, and maintain its existing commercial bank lines of credit. To reduce its borrowing, Southern Pacific expected to continue selling real estate assets not necessary to transportation operations. The company warned, however, that “it will remain leveraged to a significant extent and its debt service and capital lease obligations will continue to be substantial.”

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<sup>5</sup> Salomon Brothers, Inc., *Southern Pacific Rail Corporation -- Company Report* (July 3, 1995).

<sup>6</sup> *Id.* at 12.

Moreover, Southern Pacific's labor costs and labor contracts create a drag on its recovery. Its labor costs consume 35.4 percent of its total revenues -- the second-highest labor ratio among the nine largest railroads. Although SP had negotiated temporary reductions in wage levels below the levels at other railroads, its efforts to cut overall labor costs may be nullified by "snapback" provisions in union contracts. Although the company may be able to postpone the timing of the snapback, the clauses will return the wage level for Southern Pacific employees to the higher level found in the nationally negotiated contracts, making reductions in the labor ratio even more difficult to accomplish.

Of the four major railroads, Southern Pacific has the lowest credit rating. Its bonds carry Moody's "Ba" rating, which puts them in the category of "junk bonds." According to Moody's,

Bonds which are rated Ba are judged to have speculative elements; their future cannot be considered as well assured. Often the protection of interest and principal payments may be very moderate and thereby not well safeguarded during both good and bad times over the future. *Uncertainty of positions characterizes bonds in this class.*<sup>7</sup>

Table 12.4 shows the respective bond ratings of the four railroads. By contrast to Southern Pacific's inferior rating, the bonds of Burlington Northern, Santa Fe, and Union Pacific are classified as "investment grade." Burlington Northern's "A" rating, for example, implies that its bonds "possess many favorable investment attributes and are to be considered as upper-medium-grade obligations."<sup>8</sup>

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<sup>7</sup> *Moody's Bond Record* (Dec. 1995) at 3 (emphasis added).

<sup>8</sup> *Id.*

Southern Pacific's low bond rating, relative to the other railroads, implies that it will have more difficulty obtaining funds in the capital markets and that it will pay significantly higher rates for the money it borrows. In combination with its poor operating performance, the higher borrowing costs put the company as a severe disadvantage to its competitors.

#### *12.4 Investment Community's View of Southern Pacific*

In the opinion of industry analysts, Southern Pacific is vulnerable to economic slowdowns as well as competitive pressures from stronger railroads.<sup>9</sup> In the early 1990s, the relatively weak economy put the earnings of all transportation companies under pressure. But railroads dependent on general merchandise traffic -- such as Southern Pacific -- saw especially weak revenues.<sup>10</sup>

Even so, analysts have expected the company to stabilize its operations. For example, a favorable labor arbitration decision in December 1991 offered hope that Southern Pacific would be able to reduce costs. Along with other operating efficiencies, the company was in a position to strengthen its competitive position and capitalize on improving industry fundamentals, an eventual rebound in economic activity, and the emergence of the Mexican rail markets. Analysts assumed that the company's real estate sales would continue, albeit at dramatically lower levels.<sup>11</sup>

SP therefore enjoyed favorable notice from an investment community hopeful that the turnaround momentum begun under Mr. Moyers's watch would continue. In 1994,

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<sup>9</sup> Standard and Poor's, *Creditweek* (Jan. 14, 1991).

<sup>10</sup> Standard and Poor's, *Creditweek* (Jan. 7, 1991).

<sup>11</sup> Standard and Poor's, *Creditweek* (Feb. 3, 1992).

for example, SP's productivity gains and lower fuel cost, together with revenues from an increased market share, resulted in a solid performance. NATWEST Securities Corporation was quick to detail the improvements for the investment community:

Southern Pacific's rail profit growth remained impressive in 4Q94 -- revenues were up 5% to \$780 million primarily because of improved productivity and lower fuel costs. . . . Rail revenue growth of 8% for gross freight revenues was led by a 10% increase in intermodal revenues. . . . Obviously, Southern Pacific is gaining market share in this sector from the truckers, aided by its recent agreement with J.B. Hunt . . . . More important, the operating ratio showed excellent improvement to 89.9%, from 97.0% in 4Q93.<sup>12</sup>

On the basis of the apparently strong positive indicators, NATWEST projected SP's 1995 earnings to reach \$1.30 per share, up from \$0.84 the year before.

And a month later, in February 1995, Duff & Phelps, a bond rating agency with a large following among institutional investors, announced across-the-board upgrades of SP securities. The upgrade brought SP's most senior mortgage bonds to the cusp of investment grade after having languished under junk bond ratings for years. Duff & Phelps justified these upgrades on an expectation of continued efficiency improvements and stronger profits into 1995:

The rating upgrades reflect SP's sharply improved profitability in 1994, as cost reduction efforts begun in prior years and revenue growth have led to a significant increase in operating income to \$346 million in 1994 from \$103 million in 1993. In large part, the profitability improvement is based on significant headcount reductions, and also reflects the operating benefits of SP's investment in new and rebuilt locomotives, which have improved fleet efficiency and reliability. *Looking forward, continued investment in new equipment and expected gains in intermodal and other traffic should serve to increase profitability again in 1995 and beyond.*<sup>13</sup>

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<sup>12</sup> NATWEST Securities Corp., *Southern Pacific Rail Corp. -- Company Report* (Jan. 25, 1995).

<sup>13</sup> Duff & Phelps Credit Rating Co., *Southern Pacific Rail Corporation -- Short Term Ratings* (Feb. 23, 1995) (emphasis added).

The enthusiasm over Southern Pacific's prospects for continued profitability, however, soon began to wane. By July 1995, just before the announcement of the merger, Salomon Brothers saw three major impediments to SP stock outperforming the market in the near term and accordingly maintained a "Hold" rating on the company:<sup>14</sup>

- *Costs may not be cut as quickly as anticipated.* SP's cost cutting efforts were taking a back seat to improving customer service. While such measures were appropriate, the significant margin expansion that investors had expected would be delayed until well into 1996.
- *The Burlington Northern/Santa Fe merger may have a negative impact.* The BN/SF merger could divert as much as \$200 million of revenue from SP over the next three years.
- *Intermodal rates could remain weak throughout the summer.* With weak rates in the intermodal sector, it could be a while before intermodal rates and the density on SP's line reach a level that would substantially add to its earnings.

By the time the proposed merger was announced last August, investment analysts were becoming increasingly concerned that the positive trends at SP had stalled and that the underlying operating weaknesses were reasserting themselves. Indicative of these concerns was the report by the research arm of the German global banking giant, Deutsche Morgan Grenfell/C.J. Lawrence:

Southern Pacific has had poor earnings results over the past twelve months due to flooding in key markets, a slowing economy, a bloated cost structure, and accelerated capital spending.<sup>15</sup>

A month later, a major U.S. investment banking firm -- Lehman Brothers -- noted that denial of the merger could be expected to have a negative impact on the price of

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<sup>14</sup> Salomon Brothers Inc., *Southern Pacific Rail Corporation -- Company Report* (July 3, 1995).

<sup>15</sup> C.J. Lawrence/Deutsche Bank Securities Corp., *Union Pacific/Southern Pacific -- Company Report* (Aug. 7, 1995).

Southern Pacific stock because of its financial weakness as a stand-alone entity. Based on its projected price for UP assuming the merger is approved, Lehman Brothers expected the stock of SP to appreciate by nearly 50% to 70% from its level at that time of \$24 ½. But with third quarter earnings expected to be only \$0.14, “the stock on its own fundamentals would probably be selling in the upper teens were it not for the proposed merger.”<sup>16</sup>

As it turned out, SP’s actual third quarter was even more disappointing than expected -- earnings were only \$0.01 per share. In addition, service problems continued to plague SP, with the associated requirement to incur increased costs and deploy additional capital to meet customer expectations. The concerns of the investment community were reflected in an October report by C.J. Lawrence, which began with the following double headline:

- Southern Pacific Performs Like a Lame Duck.
- Stock Trading on a UP Takeover Value, Not on Earnings.

C.J. Lawrence reacted to a reversal of the cost-cutting that had earlier occurred and concluded:

*. . . [Southern Pacific] is trading on merger value not current earnings. Third quarter earnings per share of \$0.01 versus \$0.22 in 3Q94 suggest that the operational intensity witnessed in earlier quarters all but disappeared. Third quarter revenues declined 1% while expenses increased 5%. For Southern Pacific, the main focus will continue to be improving customer service. . . . Although demand was spotty, particularly in the intermodal business area, the effort to improve service required additional crew starts at lower utilization rates, which increased labor expense as a percentage of sales from 33% to 36%.<sup>17</sup>*

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<sup>16</sup> Lehman Brothers, Inc., *Southern Pacific -- Company Report* (Sept. 12, 1995).

<sup>17</sup> *Id.* (emphasis added).

With the company's operating ratio having increased to 94.0 percent from 88.0 percent the year earlier, C.J. Lawrence projected its 1995 earnings per share to be only \$0.57, substantially lower than estimates earlier in the year.

In December 1995, *Value Line Investment Survey*, the most widely circulated investment advisory service in the U.S., gave a somber assessment of SP's financial prospects should the proposed merger not be approved:

*SP's earnings momentum has derailed over the past six months. Although revenues declined on a year-over-year basis during the past two quarters, much of the earnings decline was caused by higher expenses, which were triggered by the company's attempt to improve customer service. SP has been running shorter, more frequent trains, to raise its service levels to that of its competitors, BN/SF and UP. The strategy has met with some success, but fuel and equipment-rent expenses have increased markedly. . .*

<sup>18</sup>

Value Line estimated SP's 1995 earnings per share to be \$0.30, a full \$1.00 decline from its year-earlier estimate. Even so, Value Line noted that speculative investors could be rewarded with substantial profits from SP stock -- but only on the assumption that the merger is approved. It closed with a warning that "approval of the merger is far from certain, and conservative investors may wish to sell their shares to avoid the regulatory risks inherent in this deal."

### *12.5 Assessment of Southern Pacific's Ability to Compete Absent the Proposed Merger*

Absent the proposed merger, SP is clearly the most financially fragile competitor among the Western railroads. Not only does SP exhibit the weakest financial performance and lowest bond ratings, it is burdened with the highest cost structure and a reputation for the poorest service. The new management team, though experienced, is unproven against

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<sup>18</sup> Value Line Publishing, Inc., "Southern Pacific Rail" (Dec. 22, 1995) (emphasis in original).

the challenges facing SP in the increasingly aggressive competitive landscape created by the merger of Burlington Northern and Santa Fe.

In the Moyers era, SP could use the proceeds from sales of real estate to fund the capital investments necessary to improve its efficiency and service quality. The ability of a free-standing SP to continue to access these sources of capital depends on the state of the California real estate market, where most of the nonoperating properties are held. In the past, SP has been able to sell operating properties to local governmental entities for eventual use by urban transit systems. This source of capital, however, has become increasingly questionable as a result of the political vulnerability of mass transit programs (*e.g.*, the defeat of Proposition 185 in California).

The ability of SP to generate capital from operations also depends on events beyond the control of management. The company's dependence on intermodal traffic makes it more sensitive to the vagaries of the business cycle. And as other railroads, its revenues can be sharply curtailed by floods and other natural disasters. Without material changes, SP's fragile financial condition makes its survival as a significant competitor unlikely.

It is apparent that under Davis, the management is attempting to correct the operating deficiencies that have plagued Southern Pacific. As one observer noted, the focus of capital spending is shifting away from track work and towards locomotives and freight cars "under the philosophy that the railroad cannot be on time if it can not leave the station."<sup>19</sup> It is possible that the new management team would be lucky, that it could

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<sup>19</sup> Standard and Poor's, *Creditweek* (Dec. 19, 1994).

continue raising cash through real estate sales and avoid the threats posed by a weak economy and natural disasters. If so, the recent record of service improvements could be maintained. Any significant adverse development, however, would very likely force Southern Pacific to undertake profound downsizing and divest itself of a major portion of its current route structure.

Without continued access to capital, SP could be left with hard choices that would undermine its viability as a competitor -- and thereby disadvantage the communities and industries dependent on this railroad. Even if the proposed merger is not effectuated, it is unlikely that SP will continue in its current form. The policy question confronting Texas is not whether SP should be preserved, but what sort of transformation is consistent with our long-term interests.

**Table 12.1**

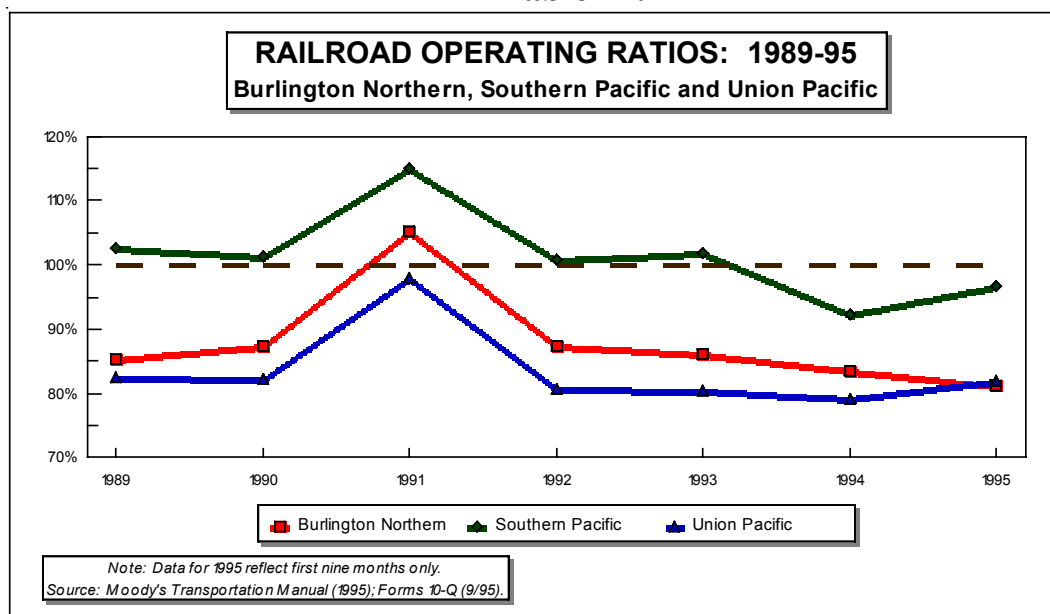


Table 12.2

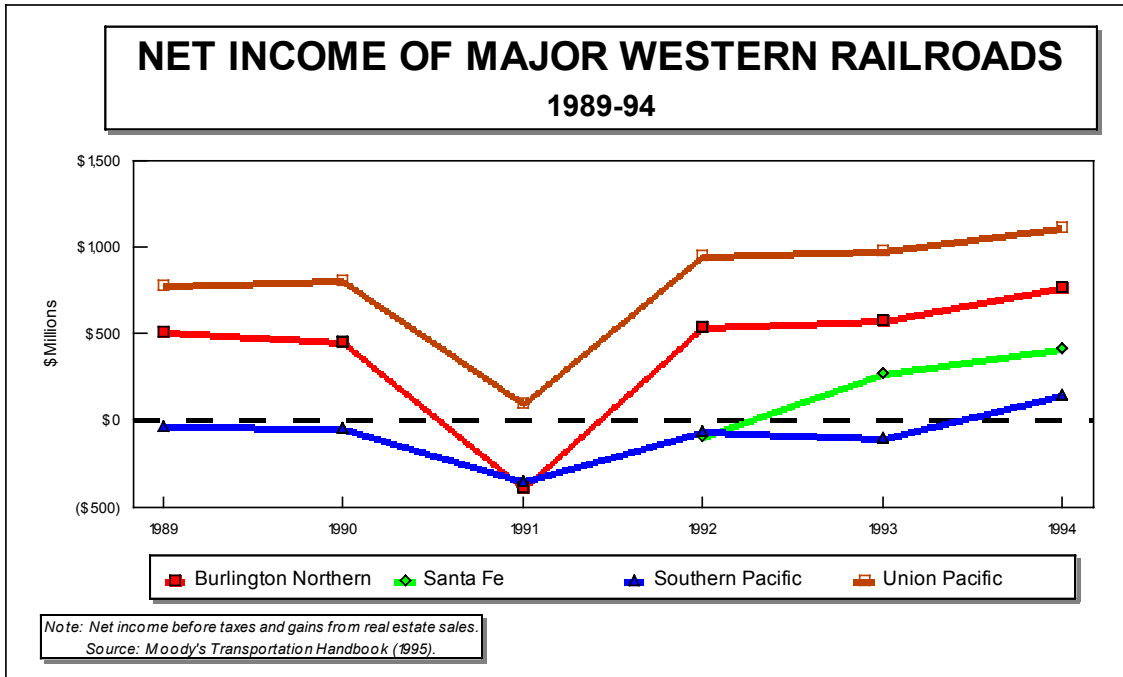


Table 12.3

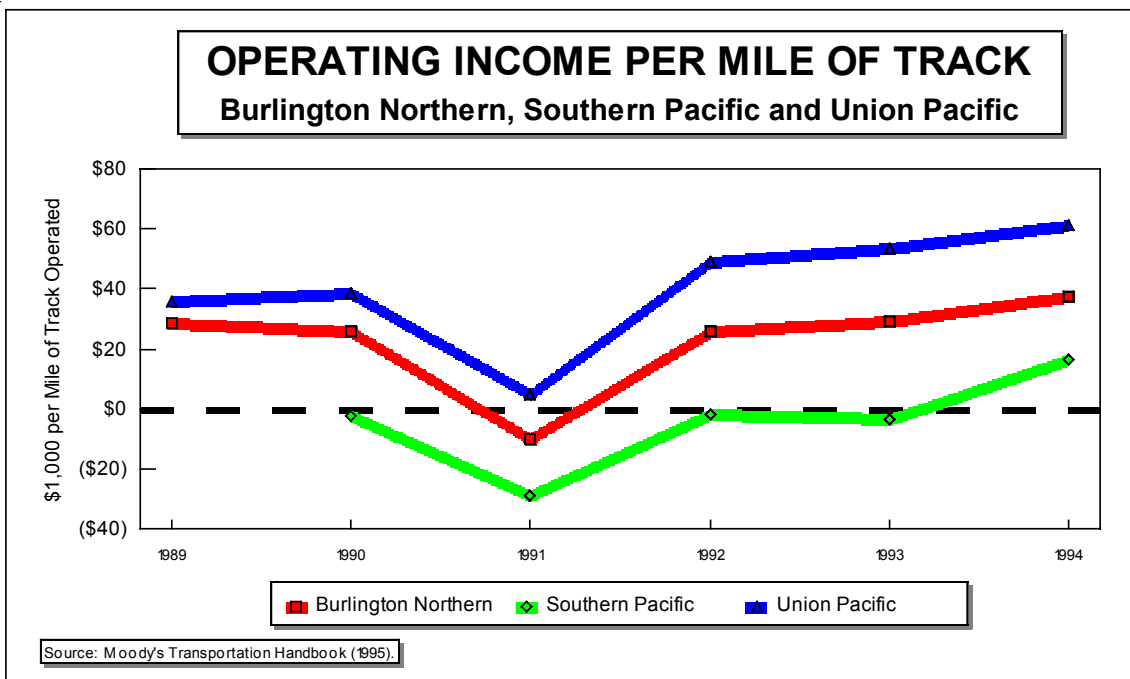
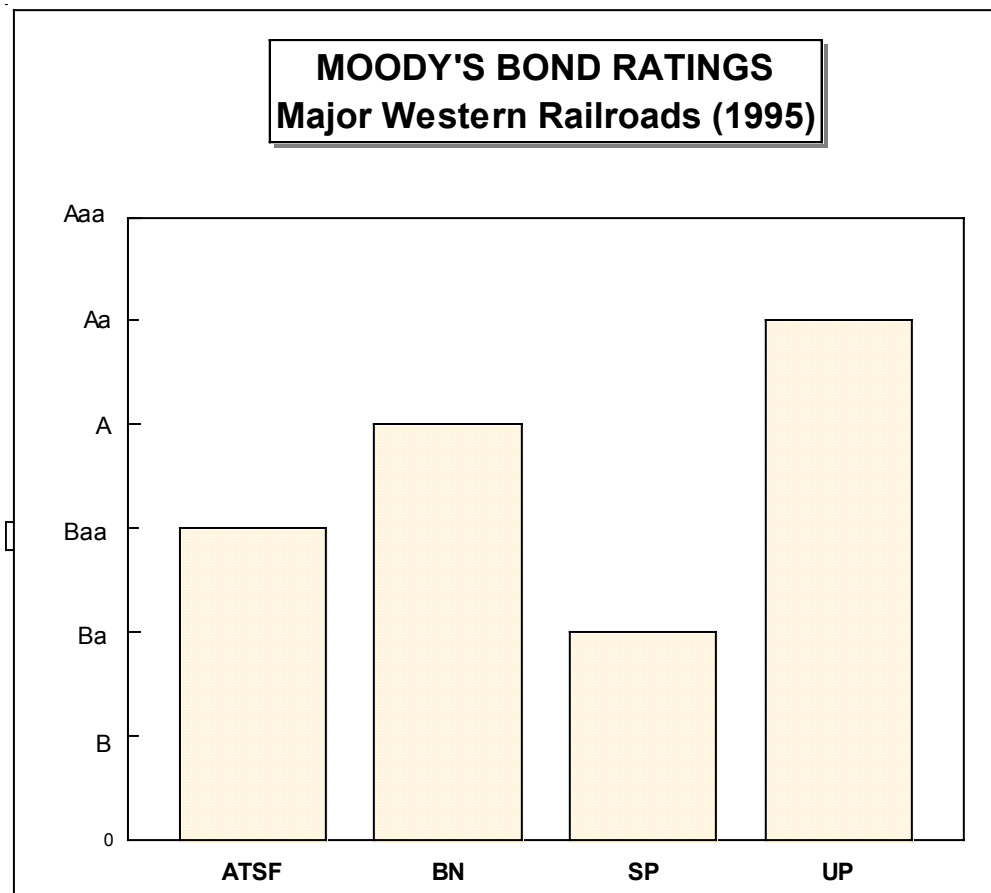


Table 12.4



## ***Section 13. Recommendations***

### *13.1 Introduction*

We believe on balance that the proposed Union Pacific/Southern Pacific rail merger is likely to have a detrimental effect on the state of Texas. Many of the negative aspects of the merger can be attributed specifically to market consolidation resulting from the extensive level of parallel routes these two rail carriers operate in Texas and beyond. Furthermore, we do not find the proposed agreement between the merged Union Pacific/Southern Pacific and the Burlington Northern/Santa Fe to provide sufficient guarantees of future competition along these parallel routes. However, we have serious doubts that given its current financial condition, the Southern Pacific can maintain its role as a vigorous competitor without outside capital. We are also concerned about anticompetitive tactics that are apparent in the proposals for abandonment in the merger application.

As a part of our analysis, the Commission requested that if the Union Pacific/Southern Pacific merger is not found to be in the best interests of the citizens of the state of Texas that an evaluation be made of potential conditions that could be attached to the merger that would address any potential negative impacts. Furthermore, it has been requested that these conditions fall within the scope of remedies that can be assigned by the Surface Transportation Board. Therefore, we recommend the Commission condition its support for the merger upon changes to the abandonment proposals and a series of track divestitures described below. (See attached map.)

### *13.2 Conditioning abandonments*

Rail carriers proposing to abandon tracks in Texas should be required to include all trackage necessary to ensure that a purchasing carrier, rural rail district or other acquiring entity have unfettered access to rail junction points. Therefore, any line abandonments suggested by the merger applicants must be junction to junction, or industry to junction in the case of abandoning an industrial lead. Requiring these conditions for any proposed abandonment now or in the future is critical to encouraging the preservation of rail service to rural areas of the state.

### *13.3 Divestitures*

The following divestitures and assignment of existing trackage rights are recommended as a condition of support for the proposed Union Pacific/Southern Pacific railroad. These suggestions do not list explicit mileage posts; however, it is assumed that the divestitures will include all junction points necessary for efficient joint connections.

#### *13.3.1 Southern Pacific - Houston to St. Louis*

Trackage currently owned by the Southern Pacific from North Junction, Missouri south through Lewisville, Arkansas, and Shreveport, Louisiana, to Houston should be spun off. This is a combination of the old St. Louis and Southwestern (Cottonbelt) line and Southern Pacific tracks. Included in this segment is the Brinkley, Arkansas, to Memphis, Tennessee, trackage. The divestiture should include all necessary yard facilities currently owned by the Southern Pacific in support of this route. The trackage rights currently possessed by the Southern Pacific over Union Pacific tracks from North Junction, Missouri, to East St. Louis should be transferred to the purchasing carrier.

This divestiture addresses competition and abandonment issues while allowing the Union Pacific to maintain its route from St. Louis through Texarkana to Houston. Specifically, this divestiture will address concerns regarding rail market concentration in Texas Gulf Coast chemicals and plastics industries by granting competitive access to a third carrier. In addition, service to the rural areas accessed by this route will be maintained and possibly enhanced with attendant benefits to those area's industrial development efforts. The purchasing carrier should have the financial capacity to improve rail infrastructure, thereby maintaining the safety benefits attributed to the proposed merger. Further, while this divestiture will block the Union Pacific's proposal for directional operations between Houston to St. Louis, we believe the capital obtained through the divestiture of these lines will allow the Union Pacific to expand its current efforts to build double tracks within their existing right-of-ways and potentially operate directional traffic.

### *13.3.2 Southern Pacific - Lewisville, AR, to Corsicana, TX*

Trackage owned by the Southern Pacific from Lewisville, Arkansas, through Big Sandy and Tyler to Corsicana should be divested. Communities along this route currently served by the Union Pacific need to have reasonable guarantees that competition for rail service will continue. There has been no operating or marketing plan offered by the Burlington Northern/Santa Fe that specifies the level of service that would be provided to these communities. It is also unclear how the proposed directional operating plan would impact service to these intermediary communities. Furthermore, if the directional operating plan is dropped, there is a possibility that this line would be deemed redundant and subject to abandonment. The divestiture of this track will allow the areas served by

this route to maintain the effective access to markets necessary to encourage industrial development. Enhanced track maintenance and equipment upgrades will also improve the safety characteristics of these routes.

### *13.3.3 Southern Pacific - Dallas/Fort Worth to Houston*

Trackage owned by the Southern Pacific from Dallas and from Fort Worth to Houston should be divested. For reasons described in our discussion of competitor behavior in Section 11, we believe that for Texas to maintain the best possible competition for its businesses, service by three Class I railroads should be maintained in the busiest corridors. We also feel the proposed directional operating plan will present service difficulties for shippers located on this line. As noted above, in the event the directional operating plan were ever canceled, this trackage would be very redundant and possibly subject to abandonment, with serious implications for rural development potential.

### *13.3.4 Southern Pacific - Houston to New Orleans*

Trackage owned by the Southern Pacific between Houston and New Orleans should be divested to address competition concerns of parallel tracks. The Union Pacific has already agreed to divest part of this line from Avondale, Louisiana, to Iowa Junction, Louisiana; we recommend that the divestiture be extended from Iowa Junction to Houston. We are not specifically suggesting that the Burlington Northern/Santa Fe purchase the entire line but that the divestiture include the entire route from Houston to New Orleans. As with the divestiture described in Section 13.3.1 above, the divestiture of the Houston to New Orleans route will limit market dominance by the Union

Pacific/Southern Pacific in the chemicals and plastics transportation market. Maintaining effective rail competition can help the Texas Gulf Coast remain very attractive for continued industrial development with attendant economic and social benefits from increasing opportunities for relatively high-wage jobs.

#### *13.3.5 Southern Pacific - Houston to Eagle Pass*

In order to enhance competition for cross border traffic, and to address problems created by parallel routes, we recommend that the Southern Pacific lines between Houston through San Antonio to Eagle Pass be divested including the Southern Pacific yard and terminal facilities in San Antonio. The existing trackage rights held by the Burlington Northern/Santa Fe from Flatonina to Eagle Pass would be retained. In addition, to promote potential service advantages to Texas shippers in the Beaumont to Houston corridor, we propose that the Union Pacific/Southern Pacific be granted trackage rights over the divested lines. This will maintain three Class I competitors for cross-border traffic, mitigating the potential negative consequences of the extreme market dominance created by the Union Pacific/Southern Pacific merger. In addition, this divestiture will promote the continued development of an alternative port of entry for Mexico while also reducing transportation congestion at Laredo and encouraging the dissemination of the benefits of growing trade to more border communities. In addition, if the Mexican government completes its proposed rail privatization plan, Eagle Pass will serve as the balance for ensuring competition between the purchasers of the North-East and the North-Pacific Mexican rail concessions.

### *13.3.6 Southern Pacific - Hearne to Placedo*

To address market consolidation concerns and to provide competitive access to deep south Texas shippers, we suggest the divestiture of trackage from Hearne through Flatonia to Placedo, including the Coletto Creek industrial lead.<sup>1</sup> This proposal also includes assigning the trackage rights currently held by the Southern Pacific from Placedo to Brownsville to the purchasing carrier. The Union Pacific should also be granted competitive access to facilities on the Coletto Creek industrial lead. This divestiture will encourage the preservation of rural rail service and maintain vital infrastructure necessary for future economic growth for the communities along this route.

### *13.3.7 Conclusions for divestitures*

Though we have suggested significant levels of trackage divestiture, we believe this action is necessary to maintain competitive rail service to substantial areas of Texas. We have neither identified nor recommended potential buyers. However, we caution that selling these assets to the Burlington Northern/Santa Fe would likely create as many problems as the Union Pacific/Southern Pacific proposal itself. We presume that the Surface Transportation Board would not authorize the sale of these properties to an entity that could not demonstrate the financial wherewithal to effectively meet their common carrier obligations.

### *13.4 Neutral terminal railroads*

There are other approaches to dealing with competition problems created by the merger of the Union Pacific and Southern Pacific railroads. For example, Commissioner

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<sup>1</sup> An industrial lead is the rail equivalent of an access road to a specific plant site.

Charles Matthews has recently suggested that establishing neutral terminal switching carriers for Texas' largest rail-shipping hubs would serve to improve competitive access and service to a wide range of industrial rail users.

Neutral terminal railroads operate as switching carriers designed to provide all shippers in a given area unrestricted access to any line-haul rail carrier serving the region. Typically these carriers would operate over a combination of publicly-owned, rail-carrier owned and privately-owned tracks held by port authorities, transit authorities, special rail districts, industrial parks, short-line and Class I rail carriers, as well as individual businesses. In addition, sufficient yard and terminal facilities, currently owned by existing terminal, short-line or Class I railroads, would have to be acquired to ensure non-discrimination in service. As circumstances and local preferences dictate, these terminal railroads could be for-profit businesses, public entities or not-for-profit endeavors.

Current proposals include establishing these neutral terminal carriers for the Dallas-Fort Worth Metroplex, Houston, including the Port of Houston and potentially the Port of Galveston, Beaumont-Port Arthur-Orange, Brownsville-Corpus Christi, El Paso, and Amarillo-Plainview-Lubbock. Operations in Dallas-Fort Worth, Houston-Galveston, Beaumont-Port Arthur-Orange and El Paso could emulate the current operations of the Port Terminal Railroad in Houston.

Serving the Brownsville-Corpus Christi areas could be accomplished by acquiring Union Pacific tracks from Placedo to Brownsville. These tracks could be operated by an

entity such as the Brownsville and Rio Grande International railroad in conjunction with the Port Terminal Railroad of Corpus Christi.<sup>2</sup>

An ambitious proposal has been presented for addressing rail competition issues for customers located in the Texas Panhandle. By acquiring trackage from the Burlington Northern/Santa Fe and several shortline rail carriers operating in the area, this proposal would create an extended terminal rail operation for the Amarillo-Plainview-Lubbock area.

The neutral terminal railroads, though not addressing all of our concerns about the proposed Union Pacific/Southern Pacific merger, would alleviate many of the competitive access problems created by the merger in Texas' industrial areas. In addition, competitive rail service to one of the state's most important agricultural areas would be enhanced. Therefore, we would suggest that the Commission strongly consider exploring the development of these neutral terminal railroads as an adjunct to the line divestitures noted above.

### *13.5 Rural rail districts*

Though we believe the recommendations noted above will greatly lessen the likelihood of substantial future rail line abandonments should the Union Pacific/Southern Pacific merger go forward, industry trends suggest that major carriers will continue to abandon lines in low-volume rural areas. In addressing the preservation of rural rail service, the use of rural rail districts may provide opportunities for maintaining vital rail service and ensuring the economic future of the State's rural areas. We strongly suggest

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<sup>2</sup> Granting trackage rights to the Tex-Mex railroad over these lines could further enhance competition and provide alternative gateways into Mexico.

that the Commission, in cooperation with other state agencies and interested parties, begin exploring options for the role of state government in providing resources to enhance the feasibility of using rural rail districts for service preservation.

*Insert Map Here*