BEFORE EMERGENCY BOARD No. 243

Between

The Railroads Represented
By The National Carriers’ Conference Committee

And Their Employees
Represented By
American Train Dispatchers Association,
International Association of Machinists and Aerospace Workers,
International Brotherhood of Electrical Workers,
Transportation Communications International Union,
Transport Workers Union,
And
The Rail Labor Bargaining Coalition.

National Mediation Board Case Nos. A-13569; A-13570;
A-13572; A-13573; A-13574; A-13575; A-13592

CARRIERS’ EXHIBIT No. 7:

REPORT OF DR. ROBERT E. GALLAMORE, PhD.
AND MR. JOHN T. GRAY

October 10, 2011
I. EXECUTIVE SUMMARY.

In this proceeding, the Coalition Unions claim that Carriers are earning such high profits that they can afford to pay above-market compensation to their workers. This claim is wrong. It is true that Carriers today are stronger financially than they were just five or ten years ago, but rail industry earnings today remain, at best, no better than average compared with other businesses against which the Carriers must compete for capital. Nor have the Carriers yet achieved the necessary level of long-term profitability needed to ensure the industry’s future sustainability.

This is a critical point. Trucks, airlines, and barges operate over highways, airways, and waterways that the government builds and maintains. By contrast, America’s freight railroads pay nearly all of the costs of their tracks, bridges, and tunnels themselves. Each year, railroads reinvest more than $20 billion on locomotives, freight cars, tracks, bridges, tunnels and other infrastructure and equipment. From 1980 to 2010, railroads reinvested some $480 billion — more than 40 cents out of every revenue dollar and several times more than the norm for most other industries.

To pay for these massive investments, the Carriers need to be able to access capital at reasonable rates. The standard that the financial community most commonly applies to measure a firm’s attractiveness for investment is whether it is earning enough to cover all costs of efficient operation, including a competitive return on invested capital. By this measure, the Carriers have not yet demonstrated that they can consistently earn their cost of capital.

Each year the Surface Transportation Board (“STB”) calculates whether a railroad’s rate of return on net investment equals or exceeds the rail industry’s current cost of capital.1 This standard is consistent with the unassailable point that, in our free-market economy, firms and industries must produce sufficient earnings over the long term or investors will refuse to provide capital to them. Based on recent STB determinations, the Carriers, as a group, have come much closer to earning their cost of capital, but they still fall short.

Indeed, as recently as November 9, 2010, the STB concluded that “no carrier [was] revenue adequate” meaning they earn less on their invested capital than is required by the marketplace to attract new investment for long-term renewal of their systems.2 Over the past decade — probably the best financial decade the railroads have seen in the past century — railroads still had $16.4 billion less operating income than they needed to reach revenue adequacy.

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1 The STB is the federal agency responsible for the economic regulation of railroads.
Other financial measures, such as return on equity, profit margin, and operating ratio, also show clear improvement in recent years, but none of these metrics should be misconstrued as signifying excessive Carrier profitability or a reduced need for Carrier attention to cost control, including labor costs. Indeed, the Carriers only reached the current level of financial performance through prudent management of their resources, which must continue in the future if financial results are to improve to the levels necessary to consistently meet capital requirements.

Significant risks to future profitability remain. In the current economic and political environment, the Carriers face significant barriers to growth and risks to their future success. For example, the Carriers are in the process of complying with a legislative mandate to install train control safety technology that will cost billions of dollars but will yield benefits that are only a fraction of the costs. Rail customer groups continue to press on several fronts for strict limits on the rates railroads can charge; if they succeed, Carrier earnings could be reduced by billions of dollars annually. From a political standpoint, the Carriers constantly face the threat of harmful legislation and regulation. Legislation is currently under consideration in Congress that would relax existing limits on the weight that trucks can carry; if passed, heavy trucks — which already severely underpay for the costs of the highway damage they cause — would become even more potent competitors to railroads. There are many other examples.

On the macroeconomic side, the recent recession caused a huge decline in rail traffic. Although freight volumes have rebounded somewhat, rail traffic is still far below pre-recession levels, and it is clear that the ongoing recovery of the freight rail industry — like the broader U.S. economic recovery — remains exceedingly fragile.

Even in the best of times, the Carriers face intense competition for nearly every segment of their traffic base. This competition comes from trucks and barges; from other railroads; from firms’ ability to alter their production processes to reduce or eliminate their need for rail service; and from many other sources. In addition, the overwhelming majority of rail customers operate in intensely competitive environments themselves in which a need for cost control and a nonstop search for improved efficiency are defining characteristics. This places the Carriers under unrelenting pressure from their customers to keep prices as low as possible and continuously improve service. It also ensures that cost increases cannot simply be passed on to customers. The competitive pressures of the market simply do not allow that to occur.

Certainly, not everything is negative for the Carriers. For example, experts agree that over the long term, freight transportation demand will grow. Since railroads are the best way to meet this demand, it is not difficult to envision scenarios where Carrier traffic grows substantially in the years ahead. However, the Carriers will be required to make massive capital investments in order to accommodate future capacity requirements.
Even if the Carriers are successful in making the capital improvements necessary to service anticipated future freight volumes, the Carriers will have to compete with alternative transportation modes to win their share of future growth opportunities. Just because the freight transportation “pie” is likely to grow in the years ahead does not mean that the Carriers are guaranteed any particular piece of that pie. They will have to earn it by providing transportation service more safely, efficiently, and cost effectively than their customers can obtain from someone else. Doing this will require continued high levels of investment in infrastructure, equipment, and new technologies, as well as stringent attention to cost control. The highly competitive transportation marketplace demands no less.

A healthy, vibrant freight rail sector is critical to our nation and its ability to compete in the increasingly globalized marketplace. Labor costs, which are the Carriers’ largest single category of expense, will be a critical determinant of whether the industry can remain healthy and vibrant. Coalition employees are already among the most highly compensated workers in the United States, and the Carriers’ proposals would make sure they continue to be. The PEB should recommend the Carriers’ proposals as a fair and equitable settlement that balances the legitimate needs of the Carriers with the welfare of Coalition employees, while allowing Carriers to continue their upward trajectory of success and enhancing their ability to provide employees with long-term, high quality jobs.

II. OVERVIEW OF THE FREIGHT RAILROADS.

A. America’s Freight Network Blankets the Nation.

America’s freight railroads serve nearly every agricultural, industrial, wholesale, retail, and resource-based sector of the economy. Operating over a comprehensive 140,000-mile network, their reliability and cost-effectiveness provide their customers with a huge global competitive advantage and significantly improve our nation’s standard of living. Simply put, freight railroads are critical to our economic health.

Today, more than 560 freight railroads operate in the United States. Seven are “Class I” railroads, defined as railroads with annual operating revenue of at least $399 million. Class I railroads comprise just 1 percent of the number of
U.S. freight railroads, but they account for 68 percent of U.S. freight rail mileage, 89 percent of employees, and 93 percent of revenue (see Exhibit 2). They operate in 44 of the 50 states and had operating revenue of $58.4 billion in 2010.  

Non-Class I railroads — also known as short line and regional railroads — range in size from tiny operations handling a few carloads a month to multi-state operators that are similar to Class I railroads.

The rail share of ton-miles is about 43 percent, more than any other transportation mode. Railroads’ share of transportation revenue, however, is less than 10 percent, pointing to the tremendous cost-effectiveness of freight railroads. This also means railroads are ultimately subject to a broader transportation market where trucks largely set the prices and railroads are forced to accept these prices if they wish to handle any freight.

**B. The Freight Rail Industry is Integral to American Employment Levels.**

U.S. freight railroads today employ approximately 175,000 of America’s most highly compensated workers. In 2010, the average full-time rail industry employee earned wages of $82,600 and fringe benefits of $25,100, for total average compensation of $107,800 (see Exhibit 3). By contrast, the average wage per full-time employee in the United States in 2010 was $53,000 (just 64 percent of the comparable rail figure) and average total compensation was $66,000 (just 61 percent of the rail figure). The average

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3 This proceeding involves six of the seven Class I railroads, as well as several non-Class I carriers. Most figures in this statement refer to the aggregate of all seven Class I railroads. The one Class I railroad not party to this proceeding (Grand Trunk Corporation) is very small relative to the aggregate of the other six, so its inclusion in the figures herein does not significantly reduce data accuracy or relevancy. Figures for the non-Class I railroads that are party to this proceeding are not available but would not be material if they were.

4 Five of the six states without Class I rail service are served by non-Class I railroads. Only Hawaii has no freight railroads.


6 Wages plus benefits does not equal total compensation due to rounding.
compensation earned by railroad employees in 2010 was higher than the average compensation in industries employing 91 percent of all U.S. workers. In other words, most U.S. workers would love to be paid as well as the rail industry workforce.

In addition to their own employees, freight railroads sustain more than 1 million other jobs at firms that provide goods and services to railroads or that are recipients of spending by the employees of railroads and their suppliers. Every job in day-to-day freight rail operations sustains another 4.5 jobs elsewhere in the economy. Millions of other Americans work in industries that are more competitive in the global economy thanks to freight railroads’ affordability and productivity.

C. The Railroads Haul the Commodities America Depends Upon.

Exhibit 4 shows Class I rail tons originated in each year for the past 15 years. Note the fairly steady, albeit far from spectacular, increase over time. Also note the huge decline in rail traffic in 2009 due to the economic downturn.

Coal is the most important single commodity carried by rail. In 2010, coal accounted for 44 percent of tonnage, 24 percent of carloads, and 24 percent of gross revenue for Class I railroads. Some U.S. coal is exported, but the vast majority is used to

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7 U.S. Department of Commerce, Bureau of Economic Analysis, “National Income and Product Accounts,” Tables 6.2D, 6.3D, 6.5D, and 6.6D (rev. Aug. 8, 2011). Other statements in this proceeding discuss rail employee compensation issues. For example, see Carriers’ Ex. 3 (Report of Dr. Murphy) and Carriers’ Ex. 5 (Report of Dr. Topel).

8 Based on an AAR analysis using the U.S. Department of Commerce’s Regional Input-Output Modeling System. See also BlueGreen Alliance, Gauging Growth: The Freight Rail Supply Chain and Job-Creation Potential, p. 4 (June 15, 2011) (“The freight rail industry is a significant economic engine, contributing nearly $265 billion of total economic activity annually and is supported directly and indirectly by about 1.2 million workers.”).
generate electricity, which is why most coal carried by railroads is delivered to coal-fired electricity generating plants. Unfortunately, due to environmental constraints and market pressure from other fuels such as natural gas, coal is also the most endangered of the major rail commodities.

Intermodal — the movement of truck trailers or containers by rail and by at least one other mode of transportation, usually trucks — has been the fastest growing major segment of the U.S. freight rail industry for many years, rising from 3.1 million trailers and containers in 1980 to 11.3 million in 2010. Only coal accounts for more rail revenue than intermodal.

Other major commodities carried by rail include chemicals (including huge quantities of industrial chemicals, plastic resins, and fertilizers); grain and other agricultural products; non-metallic minerals such as phosphate rock, sand, and crushed stone; processed food products; steel and other metal products; stone, clay and glass products; forest products, including lumber, paper, and pulp; and motor vehicles and

![Exhibit 5: Carrying the Things America Depends Upon](image)

motor vehicle parts (see Exhibit 5).

**D. Rail Transportation Provides a Multitude of Public Benefits.**

Each year, freight railroads buy billions of dollars in locally-purchased supplies and services, providing an important stimulus to local and regional economies throughout the country. They are major employers in nearly every state and pay hundreds of millions of dollars annually in property taxes to local governments. In fact, in many communities, railroads are the biggest single taxpayer. Railroads also pay billions of dollars each year in federal and state income taxes.
Freight railroads also provide considerable public benefits that would be reduced if the railroads’ competitive edge were blunted:

- **Highway Congestion:** According to the Texas Transportation Institute, in 2009, congestion on America’s highways cost $115 billion just in wasted time (4.8 billion hours) and wasted fuel (3.9 billion gallons).\(^9\) Lost productivity, cargo delays, and other costs add tens of billions of dollars to this tab. A single freight train, though, can carry the load of several hundred trucks.

- **Highway Costs:** Shifting freight from trucks to rail also reduces highway wear and tear and the pressure to build new highways. The American Association of State Highway and Transportation Officials estimated a few years ago that if all rail freight were shifted to trucks, it would cost governments an extra $128 billion for highway improvements.\(^10\)

- **Fuel Efficiency:** Freight railroads are, on average, four times more fuel efficient than trucks.\(^11\) If just 10 percent of the freight that moves by highway moved by rail instead, fuel savings would exceed one billion gallons per year.\(^12\) In 2010, U.S. freight railroads moved a ton of freight an average of 484 miles per gallon of fuel — more than twice as far as in 1980.

- **Greenhouse Gas Emissions:** Since greenhouse gas emissions are directly related to fuel consumption, moving freight by rail instead of truck reduces greenhouse gas emissions on average by 75 percent.

- **Safety:** Railroads have lower employee injury rates than other modes of transportation and, indeed, most other major industries, including agriculture, construction, and manufacturing (see Exhibit 7). Rail transportation involves only

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\(^12\) Association of American Railroads analysis using data in American Association of State Highway and Transportation Officials, *Freight-Rail Bottom Line Report*, Table 7 (January 2003).
an estimated one-sixth of the fatalities of intercity trucking per billion ton-miles of freight moved. Railroads and trucks generate roughly equal ton-mileage of hazardous materials, but trucks have approximately 16 times more hazardous releases than railroads.

E. The Rail Industry was Reborn Following the Staggers Act.

By the 1970s, decades of increasingly stringent government regulation had brought the U.S. freight rail industry to the brink of ruin. Bankrupt railroads accounted for more than 21 percent of rail mileage and the rail industry’s return on investment averaged just 2 percent. Deferred maintenance — maintenance that needed to be done but railroads could not afford — was in the billions of dollars. Trains operating on tens of thousands of miles of track had to be operated at reduced speeds because of unsafe track conditions.

The status quo was untenable, so Congress essentially had two options: nationalization, at a continuing cost of untold billions of dollars; or a move toward reduced regulation. Congress wisely chose the latter and passed the Staggers Rail Act of 1980 (“Staggers”). By passing Staggers, Congress recognized that, to survive, railroads needed a common-sense regulatory system that allowed them to act like most other businesses in terms of managing their assets and pricing their services.

Going forward, the market, not government fiat or the costs of operation, was to be the basis for most railroad pricing, asset allocation, and service provision decisions.

The Staggers Act has been a tremendous success. The global superiority of U.S. freight railroads is a direct result of the regulatory system, embodied in the Staggers Act, which relies on market-based standards. As discussed further below, Staggers Act regulatory reforms have allowed the Carriers to improve their financial performance from

anemic levels prior to Staggers to more moderate levels today. This financial improvement, in turn, has allowed railroads to plow back nearly half a trillion dollars into their infrastructure and equipment to the immense benefit of our economy.

III. **THE CARRIERS HAVE NOT YET REACHED SUSTAINABLE LEVELS OF PROFITABILITY.**

The crux of the Coalition Unions’ case is the claim that the financial condition of Carriers is so strong that they can afford to pay excessive, above-market compensation to their employees. This view ignores the Carriers’ financial realities.

The Carriers are much stronger financially today than they were just five or ten years ago. That said, one must take great care to put the Carriers’ financial situation in the proper perspective. To conclude that railroads have reached a secure and unassailable level of financial health is wrong.

By some measures, the past few years have arguably been the Carriers’ best financial period ever. Looking ahead, however, to be viable and effective — and to be able to continue to provide the huge public benefits associated with freight railroading — the Carriers must be able to both maintain their existing infrastructure and equipment, and build the substantial new capacity that will be required for them to handle the additional traffic our economy will need moved.

It would be impossible for the Carriers to do this successfully if they were hamstrung by excessive labor costs. Because the Carriers receive very little government funding, they must earn enough year after year to attract capital to their business and to fund their massive and growing investment requirements. As the Congressional Budget Office has noted, “As demand increases, the railroads’ ability to generate profits from which to finance new investments will be critical. Profits are key to increasing capacity because they provide both the incentives and the means to make new investments.”

Moreover, determining the minimum level of earnings, profitability, or solvency considered adequate by financial analysts to declare a railroad “healthy” for short-term investment purposes is very different from determining whether a railroad’s long-term profitability has reached the point at which it can be saddled with excessive costs without adverse consequences to the rail network’s ability to grow and support their customers’ growth. Short-term improvements in various profitability measures, dividend payouts, and other similar metrics do not signal that the necessary level of long-term profitability has been reached. Only a return on investment equal to or greater than the cost of capital on a long-term, consistent basis provides such a signal. This is the measure used by

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businesses large and small throughout our economy. And as discussed further below, the Carriers have not yet achieved this level of profitability.

For the Carriers, revenue and profitability are a function of the amount of freight moved, the price the market allows them to charge to move the freight, and the expenses associated with providing the transportation service. Each of these components of railroad profitability will be discussed in turn below. At the outset, though, it is important to understand that transportation prices are generally set by the market, independently of costs. In other words, transportation prices are largely indifferent to the costs the Carriers incur to provide transportation service. In this sense, the Carriers are typically “price takers.” If they are to survive, they must manage their costs within the confines of whatever prices the market allows.

A. Freight Levels

The amount of rail traffic at a given time is, to a considerable degree, a function of the health of the overall economy. When the economy is flourishing and businesses need freight moved — either to obtain supplies and raw materials or to deliver final products to customers — demand for rail service typically surges. Likewise, when people aren’t buying things and manufacturers aren’t building things, rail traffic will almost certainly decline.

It’s hard to remember now, but U.S. gross domestic product (“GDP”) actually grew for 25 straight quarters from the fourth quarter of 2001 to the first quarter of 2008. For most of these years, rail traffic generally grew along with it, as Exhibit 9 shows.

The economy-wide recession that officially began in December 2007 actually struck the Carriers much earlier. Total U.S. rail traffic (measured in terms of carloads and intermodal units combined) peaked in 2006. Traffic was slightly lower in 2007 and through the fall of 2008, when it plummeted along with the economy (Exhibit 10). In 2009, rail traffic fell by record amounts — in percentage terms, far more than the drop in GDP — before recovering somewhat in 2010 and into 2011.
Over the first seven months of 2011, the year-over-year improvement in rail traffic levels has been slowing. This is a worrying sign and serves as a confirmation that, to a large degree, the Carriers are at the mercy of larger economic forces. As of this writing, the country’s economic situation is in serious doubt and a “double-dip” recession cannot be ruled out. This would have severe negative effects on railroad traffic and, potentially, earnings. Imposing unreasonable labor costs on the Carriers is a bad idea at any time, but it is an especially bad idea during a period of significant economic turmoil, such as that we are experiencing now and could very well be experiencing for the foreseeable future.

B. Freight Rates Have Fallen by More than 50% in the Last Thirty Years.

Revenue per ton-mile (“RPTM”) is often used as a proxy for rail rates because it reflects both the dollars paid by rail customers and the weight and distance moved, which together measure the amount of transportation service provided. As Exhibit 11 shows, average rail RPTM fell 51 percent in inflation-adjusted terms (an average of 1.4 percent per year) from 1981 through 2010. This has helped rail customers control their own costs, saving them (and, ultimately, all consumers) billions of dollars each year, enhancing the global competitiveness of U.S. goods, and improving Americans’ standard of living. However, it has required — and continues to require — stringent cost controls by the railroads.

Exhibit 11 shows that average RPTM has risen since 2003. However, increases in average rail rates have recovered only about 16 percent of the decline of the prior two decades, leaving today’s average railroad rate 51 percent below 1981’s levels.

Rate increases in recent years have been possible because the market recognized the tremendous value offered by rail transportation. They also reflect slower railroad productivity gains (discussed below), capacity constraints, and a reflection of the need to increase rail investments to accommodate the service requirements of existing customers and to prepare for future freight transportation demand (see infra at p. 23-24).

In recent years, all transportation providers, including the Carriers, have been faced with higher input costs, particularly for fuel. Part of the increase in rail rates in recent years reflects these higher costs, which no transportation provider — trucks, barges, or railroads — could avoid. This is a very different situation than the Carriers face in this proceeding regarding their labor costs. In this proceeding, the subject is potential significant cost increases that would affect the Carriers only. Imposing
excessive labor costs on the Carriers would increase their costs relative to their competitors. By definition, this would make it more difficult for the Carriers to compete effectively in the transportation marketplace.

Over the past 30 years, the Carriers have survived despite lower rates primarily because of tremendous improvements in productivity. According to the U.S. Bureau of Labor Statistics, the rail industry is near the top of all U.S. industries in terms of productivity gains over the past 30 years.\textsuperscript{15} Revenue ton-miles per constant dollar of operating expense, which incorporates all cost components that contribute to rail operations, is a useful overall rail productivity gauge. By this measure, overall rail productivity rose 163 percent from 1980 through 2010 (see Exhibit 12).

Rail customers have enjoyed billions of dollars in annual savings because transportation markets have required railroads to pass on the vast majority of rail productivity gains to them in the form of lower rates. Rail customers, therefore, have been the primary beneficiaries of the Carriers’ productivity gains. These massive productivity gains have been costly for the Carriers to achieve — many were “purchased” through huge capital investment programs — but they have been essential to Carrier competitiveness and they will continue to be essential to Carrier competitiveness in the years ahead as well.

Unfortunately, as shown in Exhibit 12, rail productivity has leveled off in recent years. Without continued productivity growth and cost control, the Carriers will be hard-pressed to maintain their current market share, much less increase it. Improving yields and controlling costs are both necessary if the Carriers are to make the required massive investments in their systems. To the extent Carrier yields improve, the first priority has to be further investments in order to improve the fluidity, reliability, and efficiency of Carrier operations and to expand capacity to enable the Carriers to haul additional freight.

The problem is compounded by the fact that the obvious means of increasing productivity — the ‘low hanging fruit’ — have already been exploited. Thus, future productivity gains will likely be far more costly to achieve than those harvested to date.

Nevertheless, the Carriers have no choice but to continue with these efforts because the intensely competitive market in which they operate demands nothing less. This is the competitive reality that the Carriers face. This also means that recent increases in rail rates after so many years of decline should not be considered a “windfall” ripe for distribution to rail labor.

C. Railroad Expenses Rose Significantly in the Years Preceding the Recession.

Exhibit 13 summarizes Class I operating revenue and expenses for the past 15 years. Both were relatively flat until around 2004, when both began to rise, largely because of increases in rail traffic around this time.

Labor costs (including fringe benefits and payroll taxes) constitute the single largest category of expense for freight railroads, accounting for $14.7 billion in 2010—or 30 cents out of each dollar of expense (see Exhibit 14).

The Carriers certainly recognize the importance of top-line revenue growth as a way to increase profitability, but they also recognize that cost containment must remain an integral part of the management of Carrier operations. The Carriers are actively seeking improvements on both sides of the equation. Since labor costs are such a high proportion of total costs, labor cost containment will necessarily be a critical element.

At the same time, the Carriers have made major strides in reducing fuel costs by increasing efficiency through, among many other things, adding thousands of new, highly fuel efficient locomotives and providing training and rewards for locomotive engineers to encourage good fuel management practices. They have adopted new operating plans to utilize equipment and crews more efficiently. They have invested heavily to improve the efficiency of maintenance forces for both roadway and equipment. Taken together, these changes have helped control costs and helped insure that there would be growing profits to meet the needs for increased investment.

D. The Carriers Do Not Consistently Earn Sufficient Returns on Investment.

In order to satisfy their ongoing investment requirements, the Carriers must compete for capital in capital markets by providing investors with opportunities that provide comparable returns to other investments having a similar level of risk. Capital migrates away from subpar returns and toward better ones. The verdict of the capital markets is harsh but clear – if competitive returns are not earned, access to capital is impaired and, ultimately, denied. This reality underscores the need for continuous, intense efforts by the Carriers to reduce expenses and increase earnings.

The single standard that the financial community most commonly applies to measure a firm’s attractiveness for investment is whether it is earning enough to cover all costs of efficient operation, including a competitive return on invested capital.

In this regard, as part of its Congressional mandate, each year the Surface Transportation Board determines whether each Carrier is “revenue adequate” by calculating whether the Carrier’s rate of return on net investment (“ROI”) equals or exceeds the rail industry’s current cost of capital (“COC”). This standard is consistent with the unassailable point that, in our free-market economy, firms and industries must produce sufficient earnings over the long term or investors will refuse to provide them with capital.

During the last decade, individual Carriers have had financial results that exceeded the cost of capital just nine times. The rail industry as a whole was determined to be revenue adequate — barely — in 2006, the only time that has happened. One Carrier exceeded the benchmark in 2008, none did in 2009, and one is expected to in 2010. Never have more than three Carriers met the revenue adequacy standard in the same year.16

Exhibit 15 shows how return on investment has compared with cost of capital over the past 30 years. Railroads have significantly narrowed the COC vs. ROI gap, but they have not eliminated it completely, an indication that they still do not earn their cost of capital. The long-term goal of the Carriers must be to eliminate the ROI vs. COC gap entirely over a sustained period of time. Only then can the Carriers be considered sustainable for the long term, able to

Exhibit 15: Class I Return on Investment vs. Cost of Capital

[Graph showing Class I Return on Investment vs. Cost of Capital from 1981 to 2010]

2010 cost of capital is preliminary. Source: Surface Transportation Board

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16 The last time three railroads met the standard in the same year was 2006.
replace their depleted assets and add new capacity to facilitate future growth.

The encouraging news from this 30-year effort is that the Carriers’ condition has gradually improved. In the past few years, the Carriers as a group have come much closer to earning their cost of capital. Even so, they still fall short:

- In 2008, for example, the STB measured the Class I railroads’ cost of capital at 11.8 percent and their investment base at $88.4 billion. In order to earn their cost of capital on these assets, the railroads would have required net railway operating income of $10.4 billion (that is, 11.8 percent of $88.4 billion). Their actual income was $9.5 billion — nearly a billion dollars less than they needed to attain revenue adequacy.

- In 2009, railroad income was $7.3 billion, $2.3 billion short of what they needed to earn to cover their cost of capital.

These are large numbers — both the earnings and the shortfall — because the Carriers require such a large asset base to remain in business. But to compound the problem, even if the Carriers’ earnings in 2011 wind up being sufficient to cover their cost of capital, this would not end the struggle they face. They must show that they can do this year after year before they can be considered revenue adequate. As Exhibit 16 shows, from 1992 through 2010, Class I railroads had $34.4 billion less operating income than they needed in order to achieve revenue adequacy. In just the 10 years from 2001 through 2010, Class I railroads had $16.4 billion less operating income than they needed in order to be revenue adequate.

Even though return on investment compared with the cost of capital is the most pertinent indicator of Carrier profitability, other financial measures are discussed below. To be sure, they show clear improvement in recent years, but none of them should be misconstrued as signifying excessive Carrier profitability or a reduced need for Carrier attention to cost control, including labor costs.

E. Carrier Operating Ratios are Not Yet Sufficient for Revenue Adequacy.

Exhibit 17 shows the Class I railroad operating ratio — operating expenses divided by operating revenue — for the past 15 years. The improvement in recent years is
notable: The operating ratio fell from a recent peak of 86.6 percent in 2004 down to 73.1 percent in 2010, the lowest operating ratio in modern railroad history.

Unfortunately, in order to have earned their cost of capital in 2010, the Class I railroads would have needed an operating ratio of 71.9 percent. In other words, the best railroad operating margin in history was still insufficient to get railroads to the point where the industry achieved a goal sought by every modern business — a return on investment that equals or exceeds its cost of capital.

F. Returns on Equity Do Not Indicate that the Carriers Earned Extraordinary Profits.

Return on equity (“ROE” — defined as net profit divided by shareholders’ equity) is a common profitability measure. Based on data from Value Line (an investment research company that tracks several thousand firms and categorizes them into approximately 80 industries), the ROE for the rail industry rose from 8.6 percent in 2003 to 15.6 percent in 2008, fell to 10.7 percent in 2009, then rose again in 2010 to 15.4 percent (see Exhibit 18). As Exhibit 18 shows, from 2003 through 2007, rail industry ROE was less than the median of all industries,

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Value Line’s ROE for the rail industry is based on the railroad holding company (including non-rail operations) and is used to allow “apples-to-apples” comparisons across industries. The ROEs for just the rail component of the holding companies are typically lower than the Value Line ROEs, but the trends over time are similar.

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generally substantially so. Only in 2008 and again in 2010 was rail industry ROE higher than the median ROE of all industries — probably the first time ever that this happened.

What does this mean? As noted above, the most recent three years have perhaps been the best financial years ever for railroads. Even so, their return on equity during these years has been only slightly higher than the median for all industries — at a time when most industries were struggling themselves. These metrics are not indicative of an industry that is earning excess profits.

G. **Returns on Total Capital Also Demonstrate an Absence of Excessive Profits.**

Return on total capital — defined by Value Line as net profit plus half of long-term interest divided by shareholders’ equity plus half of long-term debt — is another way to measure profitability. By this measure, railroads exceeded the median among all industries only in 2010 (see Exhibit 19). Again, this is not indicative of an industry that is earning so much money that it can afford to be saddled with above-market labor costs.

H. **Profit Margins Do Not Support Claims that the Carriers Can Afford Above Market Wage Increases.**

Some railroad critics, including some associated with rail labor, have claimed that because railroad “profit margins” (defined as net income divided by revenue) are higher than most other industries, railroads are earning excessive profits. The implication is that railroads can therefore afford above-market wage increases. This claim is wrong.

Profit margin is virtually worthless for comparing profitability across industries because firms in different industries have vastly different operating characteristics and

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very different quantities of assets required to generate their profits. Firms with more assets need higher profits (the money left after expenses are paid) in order to cover the costs of those assets.

Comparing railroads with United Parcel Service ("UPS") illustrates the importance of taking into account the size of the asset base needed to generate revenue and profits. In 2010, UPS had revenue of $49.5 billion and net income of $3.5 billion, for a profit margin of 7.0 percent. Meanwhile, the aggregate revenue of the four largest U.S. freight railroads was $53.7 billion (only 8 percent higher than UPS), but their aggregate net income was much higher than UPS’s at $8.5 billion. The resulting rail profit margin of 15.8 percent is much higher than UPS’s (see Exhibit 20). According to the profit margin standard alone, railroads are much healthier financially than UPS.

UPS, however, primarily uses infrastructure provided by the government (highways and the air system) or by railroads to ship freight. Thus, its asset base is a relatively low $32.7 billion and its resulting return on assets (net income divided by asset base) is 10.7 percent.

For their part, railroads require an enormous asset base (tracks, locomotives, signals, terminals, bridges, tunnels, etc.) in order to earn a given amount of revenue, and they must be able to earn enough to pay the huge maintenance and growth costs of these assets. The book value of the railroads’ asset base in 2010 was $150.2 billion, more than four times higher than UPS’s, and the railroads’ return on assets was just 5.7 percent — only about 53 percent of the comparable UPS figure.

In other words, the four largest railroads combined needed an asset base more than four times that required by UPS to generate only slightly more revenue. Profit margin ignores this critical point. In order for the four railroads to have been as profitable (measured by return on assets) as UPS, their net income would have needed to be $16 billion, resulting in a profit margin of 29.9 percent.

The financial markets clearly recognize the difference in performance. Bonds sold by UPS carry a debt rating of AA, one of the highest investment grades. In contrast, debt instruments issued by the largest railroads carry a rating of BBB or BBB+, just above “speculative” status (bond ratings are discussed further on pp. 21-22.).

The disparity in the amount of assets required by railroads relative to most other industries is even worse than it first appears because the $150 billion figure for the value

<table>
<thead>
<tr>
<th>Exhibit 20</th>
<th>UPS vs. Four Largest U.S. Freight RRss</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>UPS</td>
<td>RRss</td>
</tr>
<tr>
<td>Revenue</td>
<td>$49.5</td>
<td>$53.7</td>
</tr>
<tr>
<td>Net income</td>
<td>$3.5</td>
<td>$8.5</td>
</tr>
<tr>
<td>Avg. total assets</td>
<td>$32.7</td>
<td>$150.2</td>
</tr>
<tr>
<td>Profit margin</td>
<td>7.0%</td>
<td>15.8%</td>
</tr>
<tr>
<td>Return on assets</td>
<td>10.7%</td>
<td>5.7%</td>
</tr>
</tbody>
</table>

Data are for 2010. Source: company 10-Ks
of rail assets noted above is understated under existing accounting rules because it is based on the assets’ depreciated book value.

Because book value substantially undervalues long-lived rail assets like track, locomotives, and freight cars that have been depreciated over many years, it usually bears little relation to what it will cost railroads to renew and replace them.\textsuperscript{20} If more accurate replacement cost accounting were used for the rail industry’s long-lived assets, the railroads’ asset base would be valued much higher than it currently is, resulting in an even lower return on assets for railroads.

In fact, in a petition on this subject prepared by the Association of American Railroads in 2008, the replacement value of the assets of the four largest Class I railroads was computed to be approximately $308 billion, rather than $150 billion.\textsuperscript{21} Using this more accurate figure for asset base, the return on assets for the four railroads in the UPS example above was only 2.8 percent.

\subsection*{I. Dividend Payments Do Not Justify Compensation Increases in Excess of the Carriers’ Proposal.}

Another factor cited by the Coalitions and their experts to justify above-market increases in compensation are dividends paid by the Carriers to their shareholders. From 2001 to 2010, U.S. Class I railroads paid $21.8 billion in dividends to the owners of their common stock.\textsuperscript{22} They spent additional billions of dollars repurchasing shares of their companies, thereby returning additional cash to their owners. Some on the rail labor side have alleged that these dividend payments and share repurchases are proof that the Carriers are making so much money that they can afford the compensation increases demanded by the Coalitions. Some rail critics have even implied that the Carriers could reduce dividend and share repurchases and use those savings to fund additional compensation for Coalition employees or further reduce prices for rail customers.

This viewpoint reflects a lack of awareness of how publicly-owned firms must balance the demands of capital investment and other needs of the firm with providing

\begin{itemize}
  \item \textsuperscript{20} For example, in 2009 testimony to Congress, the CEO of one of the railroads in this proceeding noted that in 2005, part of one of its lines was destroyed by a flood. The book value on that line at the time was $4 million, but it cost the railroad $87 million to rebuild. \textit{See Freight and Passenger Rail: Present and Future Roles, Performance Benefits and Needs: Hearing Before the Subcommittee on Railroads, Pipelines and Hazardous Materials of the House Committee on Transportation and Infrastructure}, 111\textsuperscript{th} Cong. (2009) (Testimony of James Young, CEO and President, Union Pacific Corporation).
  \item \textsuperscript{21} Verified statement of Michael D. Baranowski, Ex Parte No. 679, Petition of AAR to Institute a Rulemaking Proceeding to Adopt a Replacement Cost Methodology to Determine Railroad Revenue Adequacy, Table 18, p. 28 (May 1, 2008).
  \item \textsuperscript{22} Based on the 2001-2010 R-1 reports submitted annually by Class I railroads to the STB.
\end{itemize}
shareholders returns that are sufficient to attract capital now and in the future. Generally speaking, when a publicly-owned firm makes money, it can do one of two things with it. It can reinvest the earnings in itself (say, by investing in plant or equipment or paying down debt) or it can distribute all or part of the earnings to shareholders in the form of dividends. Dividend payouts plus stock appreciation constitute the total return to shareholders for ownership in the company. The management of every publicly-owned firm must decide how much of the firm’s profits should be reinvested back into the business (with the expectation that this investment will lead to growth and efficiencies that will increase profits, and therefore the firm’s share price, in the future) and how much should be returned to shareholders.

For the Carriers, it is particularly difficult to find that balance, given the huge demands for capital investment discussed elsewhere in this paper. The capital intensity of the Carriers means they must devote a far larger share of their cash flow to capital expenditures than do most other firms, leaving less available for dividend payments or stock repurchases.23

Although a host of factors influence a company’s dividend policy and a thorough discussion of dividends is beyond the scope of this submission, generally speaking, if investors are convinced that a corporation has high-return investment opportunities, they are likely to be much more willing to leave the money in the firm (rather than have it returned to them as dividends) in the hope that higher stock appreciation will lead to greater shareholder returns.24 On the other hand, firms in mature industries — like railroads, durable goods manufacturers, and utilities — are more likely to pay dividends and buy back stock, because investors do not generally see the same potential for significant relative stock appreciation and therefore demand more returns in the form of dividends.

The important point is that shareholders must be able to expect competitive returns one way or another, or they will put their money in investments they think will offer such returns. Management is aware of this, and thus will try to keep total returns to shareholders (including dividend payments) competitive with other investments. Reducing or eliminating dividends, especially in a mature industry like railroads, may conserve cash in the short-run, but at a likely cost of a reduced ability to attract reasonably priced capital essential for future growth and for renewal of the current rail network. Given the acute need for continuous capital improvements, the Carriers must

23 As an example, from 2008 through 2010, capital expenditures were equivalent to 63 percent of total cash flow from operating activities for the three largest publicly-traded U.S. freight railroads (CSXT, Norfolk Southern, and Union Pacific). The comparable figure for the three largest U.S. chemical companies in the Fortune 500 (Dow, DuPont, and PPG) was 43 percent. For the average rail customer, capital expenditures are much lower still.

24 This is why “growth” companies often do not pay dividends.
provide attractive investment opportunities in capital markets in order to have access to sufficient capital.

Balancing this requirement against their companies’ massive capital investment needs confronts Carrier management with a difficult challenge in managing the enterprise for continued growth. Awarding a portion of this cash to Coalition employees in the form of an above-market wage settlement simply because dividends have increased would jeopardize both capital investment and the attractiveness of the firm to investors — that is, to the Carriers’ capital providers — in the future.

In December 2008, at the height of the recession, Standard and Poor’s (“S&P”) produced a paper highlighting the importance of dividend-paying stocks as part of every investor’s portfolio — especially during difficult times. After noting that the S&P 500 companies paid a record of $252 billion in dividends during the year ended September 30, 2008, S&P explained, “[d]ividend payouts typically increase during recessions…From January 1, 2008, through November 30, 2008, nearly half (230) of the S&P 500 companies had initiated or increased a dividend, while only 55 companies had reduced or suspended their dividend payments.”25 Thus, the Carriers’ dividend payments were consistent with prevailing market norms.

J. The Carriers’ Low Bond Ratings Demonstrate their Tenuous Economic Outlook.

A significant portion of the assets employed by the Carriers in their businesses are funded by borrowing in the private capital markets. At the end of 2010, the three publicly traded Class I railroads had total non-current debt of $21.5 billion. On a market value basis, over 23 percent of their capital was provided by debt.26

Several national credit rating agencies issue ratings of the Class I railroads’ debt, which provide investors who are considering purchasing or holding railroad debt an independent assessment of the credit quality of the issuer. These ratings provide the rating agency’s assessment of the issuer’s ability and willingness to meet its debt obligation in full and on time. As such, these ratings provide an indicator of the railroads’ financial health in terms of their ability to attract investment.

As shown in Exhibit 21, Standard & Poor’s current bond ratings place the four largest Class I railroads in the lower end of “investment grade” bonds, significantly below companies judged to possess “Extremely strong capacity” (AAA), “Very strong capacity” (AA), or “Strong capacity…but somewhat susceptible to adverse economic

One of the four largest railroads was rated BBB- in 2010, which is one step above the “speculative grade” range, while the fifth-largest U.S.-based railroad was rated as “speculative” debt.

Exhibit 21: Bond Ratings for Five Major U.S. Freight Railroads

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</thead>
<tbody>
<tr>
<td>BNSF</td>
<td>BBB+</td>
<td>BBB+</td>
<td>BBB+</td>
<td>BBB+</td>
<td>BBB+</td>
<td>BBB+</td>
<td>BBB</td>
<td>BBB</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>CSX</td>
<td>BBB</td>
<td>BBB</td>
<td>BBB</td>
<td>BBB</td>
<td>BBB</td>
<td>BBB-</td>
<td>BBB-</td>
<td>BBB-</td>
<td>BBB-</td>
<td>BBB-</td>
<td>BBB-</td>
</tr>
<tr>
<td>KCS</td>
<td>BB</td>
<td>BB</td>
<td>B+</td>
<td>B+</td>
<td>B-</td>
<td>B-</td>
<td>BB</td>
<td>B+</td>
<td>B+</td>
<td>B+</td>
<td>B+</td>
</tr>
<tr>
<td>NSC</td>
<td>BBB</td>
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<td>BBB+</td>
<td>BBB+</td>
<td>BBB+</td>
<td>BBB+</td>
<td>BBB+</td>
<td>BBB+</td>
</tr>
<tr>
<td>UP</td>
<td>BBB-</td>
<td>BBB</td>
<td>BBB</td>
<td>BBB</td>
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<td>BBB</td>
<td>BBB</td>
<td>BBB</td>
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</tbody>
</table>

Source: Standards & Poor's Bond Guide ratings at year end. 2011 is as of July 2011.
(1) Subsequent to announcement of BNSF acquisition by Berkshire Hathaway on 11/3/2009.

The railroads’ bond ratings have been raised somewhat by S&P in recent years as their financial condition has improved but, as with the other measures of financial condition, the railroads remain in the “middle of the pack” and their condition is subject to reversal. The BBB category’s description makes this abundantly clear: “Adequate capacity to meet financial commitments, but more subject to adverse economic conditions.”

These bond ratings play a major role in determining the cost of debt to the issuing companies. Firms with lower bond ratings generally have to pay higher interest rates on new debt to compensate investors for the additional risk they are accepting. In 2010, the average interest rate for debt rated as AAA by S&P was 4.94 percent, while instruments rated BBB carried an average rate of 6.04 percent. This differential of 111 basis points translates into approximately $238 million in additional annual interest payments for the Class I railroads, given the amount of debt they have outstanding. Actions that worsen the railroads’ future prospects — including awarding excessive labor contract settlements — would tend to lower the railroads’ bond ratings and increase their cost of capital.

**K. Although Financial Performance has Improved in Recent Years, the Carriers’ Recent Performance Cannot Justify Above Market Compensation Increases, Especially in Light of their Monumental Capital Investment Needs.**

The improvement in the Carriers’ earnings in recent years is undoubtedly a positive development but it has done no more than bring the Carriers closer to the average among all industries. That is not enough to justify compensation increases over and above the Carriers’ proposals.

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The Carriers still must prove that they will be able to fund, year in and year out, the massive investments in new and existing capacity they will need. Until that point is reached, the Carriers cannot reasonably be expected to bear extraordinary cost burdens or significantly reallocate their financial resources. Excessive costs in any area of rail operations, including labor, will only further inhibit the Carriers from making the investments they need to remain competitive and meet the transportation needs of our nation.

**IV. STRONG EARNINGS TODAY ARE A PREREQUISITE FOR RAIL INVESTMENT AND BETTER RAIL SERVICE TOMORROW.**

As discussed above, the greatest financial challenge facing the Carriers today is ensuring that their existing infrastructure and equipment is finally returned to and then kept in top condition and that enough new capacity is built to position the Carriers to handle significant increases in freight traffic in the years ahead. Without adequate Carrier infrastructure renewal and capacity, rail service will become less safe, slower, less responsive, less reliable and less common — outcomes that are incompatible with a healthy, growing, and efficient U.S. economy and with the desires of rail labor for a healthy, growing rail network. But because freight railroads receive very little government infrastructure funding, they must earn enough year after year to meet their massive investment requirements — requirements that are likely to grow during the term of the collective bargaining agreement that is the subject of this proceeding.

Indeed, experts agree that over the long term, freight transportation demand will grow. The Federal Highway Administration, for example, recently reported that total freight movements across all modes are projected to rise from an estimated 16.9 billion tons in 2010 to 27.1 billion tons in 2040 — a 61 percent increase (see Exhibit 22). Although, from a public policy viewpoint, railroads are the best way to meet this demand, the Carriers...
are not guaranteed any of this freight. They will have to earn it by providing transportation service that meets the price and service demands of their customers.

Policymakers are aware of the importance of transportation capacity and investments. For example, in April 2011, Secretary of Transportation Ray LaHood noted that “[t]he population of the United States is expected to grow by 100 million people in the next four decades. That’s like adding another California, New York, Texas, and Florida, combined. So, if we want America’s next generation of big dreamers and big doers to thrive, then we have no choice but to make big investments in the multi-modal transportation system that makes our livelihoods possible.”28 The Carriers cannot make the “big investments” Secretary LaHood is referring to if significant portions of their earnings have to be devoted to above-market labor compensation.

Although the rail capacity issue had been building over time, it became much more urgent beginning around 2004 when the confluence of a number of factors led to much higher rail traffic levels. By 2006, the Carriers were moving more freight than ever before. Unfortunately, this traffic increase created serious capacity constraints and led to service problems at some points on the rail network, since the Carriers were using their assets far more intensely than in the past. Exhibit 23, which shows railroad ton-miles per mile of railroad, reflects this reality.

The recent recession and associated decline in rail traffic has meant a reprieve from many of the capacity challenges the Carriers were facing, but this reprieve is only temporary and should not lead anyone to think that capacity — and the Carrier investments associated with it — has become any less important.

The good news is that the Carriers have plowed enormous amounts of capital back into their networks to make them safer and more reliable. The increase in earnings and profitability in recent years has allowed the Carriers to reinvest heavily in their systems with an enormously positive impact on the rail industry and our economy. As Exhibit 24 shows, since 1980, Class I railroads have reinvested nearly $460 billion — more than 40 cents out of every revenue dollar — on locomotives, freight cars, tracks, bridges, tunnels and other infrastructure and equipment. Non-Class I carriers have reinvested some $22 billion over this same period, bringing the rail industry total to around $480 billion.29

28 Excerpt from the prepared remarks of Secretary Ray LaHood at the North American Marine Highways and Logistics Conference, Baltimore, Maryland (Apr. 5, 2011).

29 Spending for non-Class I railroads is an AAR estimate based on periodic AAR surveys to non-Class I railroads.
Despite the difficult economic times of the past few years, railroads have been reinvesting more than ever before — nearly double what they were spending just a few years ago (see Exhibits 25 and 26). The Carriers are investing so much because they know that if future U.S. freight transportation demand is to be met, rail capacity must expand. The Carriers have learned from their experiences the last decade that a failure to invest heavily during leaner times means that it is much more difficult and expensive to handle the business that will be available when a growth economy returns.

As an added benefit, these investments provide more than 17,000 rail-related jobs per billion dollars spent. More critically, they build the foundation for future growth that will provide thousands of additional long-term, well-paid railroad jobs.

30 Based on an AAR analysis of the U.S. Department of Commerce’s Regional Input-Output Modeling System. See also BlueGreen Alliance, Full Speed Ahead: Creating Green Jobs Through Freight Rail Expansion, p. 8 (May 4, 2010) (“[F]reight rail capital investments would produce anywhere from 12,300 to 26,600 total jobs (direct, indirect and induced) per billion dollars of investment.”).
Moreover, in recent years there has been a very strong positive correlation between rail earnings and reinvestments in their systems, as Exhibit 27 shows. It is clear that earnings today mean more investment in infrastructure and equipment for tomorrow. The Carriers are committed to spending massive amounts in the years ahead, if their earnings allow them to, to help ensure that America has the rail capacity it needs.

A. Generating Sufficient Capital Investment Is and Will Remain a Tremendous Challenge.

Freight rail investment needs are so great because of the highly capital-intensive nature of rail operations. Railroading requires vast levels of spending for infrastructure such as track and signals; for communications and information technology; for locomotives, freight cars, and other equipment; and for technology research, development, and implementation. Satisfying these ongoing investment needs presents a formidable financial challenge for the Carriers.

By any of several of measures, the capital intensity of freight railroading is at or near the top among all U.S. industries. For example, as shown in Exhibit 28, in 2010, railroad net investment in plant and equipment per employee was $954,000 — more than
eight times the average for all U.S. manufacturing ($114,000).

Similarly, from 2000 to 2009, the average U.S. manufacturer spent three percent on capital expenditures. The comparable figure for U.S. freight railroads was nearly 17 percent, or more than five times higher (see Exhibit 29).

Finally, based on Fortune 500 data, railroads have significantly higher asset needs for each dollar of revenue produced than other industries. The figure for railroads in 2010 ($2.68) was more than double the median for all industrial firms ($1.21) (see Exhibit 30).\(^{31}\)

The massive reinvestments railroads have made in their networks have major safety benefits as well. Exhibit 31 shows the strong inverse correlation between railroad investments (made possible by their improved financial performance) and improved rail employee injury rates. As railroad investment spending increases, employee safety improves.\(^{32}\)

\[\text{Exhibit 30: Ratio of Assets to Revenue for Selected Industry Groups - 2010}\]

<table>
<thead>
<tr>
<th>Industry</th>
<th>Ratio</th>
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<tbody>
<tr>
<td>Utilities, energy</td>
<td>2.87</td>
</tr>
<tr>
<td>Mining, crude oil production</td>
<td>2.84</td>
</tr>
<tr>
<td><strong>Railroads</strong></td>
<td><strong>2.68</strong></td>
</tr>
<tr>
<td>Pipelines</td>
<td>1.53</td>
</tr>
<tr>
<td>Oil &amp; gas equipment, services</td>
<td>1.43</td>
</tr>
<tr>
<td>Construction &amp; farm machinery</td>
<td>1.38</td>
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<tr>
<td>Airlines</td>
<td>1.30</td>
</tr>
<tr>
<td>Food &amp; beverages</td>
<td>1.29</td>
</tr>
<tr>
<td>Household &amp; personal products</td>
<td>1.27</td>
</tr>
<tr>
<td>Chemicals</td>
<td>1.21</td>
</tr>
<tr>
<td>Forest &amp; paper products</td>
<td>1.21</td>
</tr>
<tr>
<td>Metals</td>
<td>1.13</td>
</tr>
<tr>
<td>Industrial machinery</td>
<td>1.12</td>
</tr>
<tr>
<td>Motor vehicles &amp; parts</td>
<td>1.02</td>
</tr>
<tr>
<td>Petroleum refining</td>
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<tr>
<td>Mail package and freight delivery</td>
<td>0.69</td>
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<tr>
<td>Trucking, truck leasing, logistics</td>
<td>0.56</td>
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<tr>
<td>General merchandisers</td>
<td>0.51</td>
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<tr>
<td>Food production</td>
<td>0.50</td>
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<tr>
<td>Median</td>
<td>1.21</td>
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</tbody>
</table>

Source: Fortune, May 23, 2011

\[\text{Exhibit 31: Railroad Employee Injury Rate vs. Rail Spending on Infrastructure and Equipment} \ (\text{Index 2001} = 100)\]

*Capital spending + maintenance expenses - depreciation per mile owned
**Injuries per 100 full-time employee equivalents. Source: AAR, FRA

\(^{31}\) The ratio of assets to revenue in Exhibit 30 is different than in Exhibit 20 because Exhibit 30 is based on end-of-year asset values, rather than annual averages, and Exhibit 30 does not include BNSF, whereas Exhibit 20 does.

B. Implementing New Technologies Will Also Be Challenging.

As discussed above, the Carriers need to be able to expand and enhance their infrastructure and equipment, and significantly reallocating their financial resources would make this much more challenging. It would also make the implementation of new technologies more difficult to achieve.

The implementation of a wide variety of technologies that have significant operational and safety benefits — benefits that would accrue to the Carriers, rail labor, and the public at large — would be threatened if the Carriers were forced to pay excessive compensation premiums. Just a few examples: the Carriers and their suppliers are constantly working to make their telecommunications systems more robust; to develop more sophisticated wheel, axle, and track flaw detection systems; to improve the ability of rail steel, bridges, welding and specialized track components to handle longer and heavier trains; and to develop new systems — including remote monitoring capabilities — to ascertain the structural health of bridges. These kinds of technological upgrades have allowed the Carriers to operate at higher traffic density levels over a smaller network while simultaneously improving safety performance. Reallocating dollars to employee compensation and away from technological advances would have long-term negative effects for the rail industry, its customers, and the general public.

Other safety related technologies are currently being developed pursuant to unfunded federal mandates. For example, the Rail Safety Improvement Act of 2008,\(^{33}\) legislation that was heartily endorsed and heavily promoted by rail labor, mandated that by December 31, 2015, “positive train control” (“PTC”) technology must be installed on rail main lines used to transport toxic inhalation hazard (“TIH”) materials or passengers.\(^{34}\) Positive train control describes a safety technology designed to automatically stop or slow a train before certain accidents caused by human error occur. Based on early Federal Railroad Administration (“FRA”) estimates, the freight railroads will have to spend about $4.9 billion to install PTC. (More recently, with two years’ actual experience in developing the technology, the Association of American Railroads (“AAR”) has estimated the freight railroad PTC installation costs at $5.8 billion.) AAR estimates that PTC maintenance will cost the freight railroads another $ 5.8 billion.\(^{35}\) Also, passenger rail agencies will have to spend an additional $2.3 billion to install PTC systems. As to benefits, FRA estimates PTC-related safety benefits (including accidents avoided on non-Class I freight railroads) will accumulate to only $440 million (in present value terms) over the same period. Thus, expected PTC-related installation and


\(^{34}\) Toxic inhalation hazard materials are gases or liquids, such as chlorine and anhydrous ammonia, which are especially hazardous if released into the atmosphere.

\(^{35}\) $5.8 billion represents the present value of the freight railroads’ annual maintenance expenditures over the next 20 years.
maintenance costs exceed anticipated PTC-related safety benefits by more than 22 to 1. The large sums that the railroads have been ordered to spend to install and maintain PTC will not be available to improve service quality or increase capacity. Similarly, mandating excessively generous labor compensation increases would divert additional dollars that could be used for investments necessary to increase railroad efficiency, capacity, and competitiveness.

But all of these projects, and many others like them, must compete for a limited amount of available funding. To the extent that available funds must instead be devoted to excessive and ill-considered employee compensation, the funds will not be available for these projects — all of which help ensure there will be more, safer, railroad jobs into the future.

V. **THE EXTREMELY COMPETITIVE MARKETPLACE IN WHICH THE RAILROADS OPERATE LIMITS THE ABILITY OF THE CARRIERS TO ABSORB EXCESSIVE COMPENSATION INCREASES.**

Any increases in compensation paid to Coalition employees must be paid for by the Carriers over the term of the new agreements – profits earned in past years cannot be used to fund these increases. These funds must come from the same revenue stream used to fund capital investments as well as other operating expenses. As explained above, the Carriers operate in an intensely competitive transportation marketplace, with rail customers almost always having ways to obtain competitive transportation and continually seeking additional options. Shippers work very hard to minimize what they must pay to the Carriers, as is evidenced by the dramatic downward trend in rail prices since 1980. The upshot is that the rail industry is not nearly as impervious to downward financial risk as some on the labor side of this proceeding claim.

The intensity of the competition the Carriers face means that, in order to attract new traffic and to retain their existing business, the Carriers must constantly look for ways to increase efficiency, improve service, and control costs. The Carriers cannot let costs rise uncontrolled, and then simply raise rates with relative impunity to preserve their profits. Thus, in the current competitive environment, it is highly unlikely that the Carriers will be able to increase freight rates to offset increased labor costs.

As noted above, thanks to economic growth, population growth, increased globalization, and other factors, experts predict that demand for freight transportation will increase in the years ahead. But just because the freight transportation “pie” is likely to grow in the years ahead does not mean that the Carriers are guaranteed any particular piece of that pie. They will have to earn it by providing transportation service more safely, efficiently, and cost effectively than their customers can obtain from someone else. Doing this will require continued high levels of investment in infrastructure, equipment, and new technologies, coupled with stringent cost control and customer service enhancements.
A number of competitive constraints that the Carriers face in their quest for a bigger piece of the freight transportation pie are described below.

A. **Rail Carriers Face Intense Competition From Other Railroads.**

Carrier customers often have direct access to competing railroads. Some Carrier customers can also build (or credibly threaten to build) a new rail line to a competing railroad, or use rail-highway service or other options to obtain service from another railroad. Carrier customers can generate competition between railroads before a plant is even built by negotiating favorable contracts when evaluating potential plant locations. Over the long term, rail customers can locate or relocate plants on the lines of different railroads or source inputs from suppliers accessible by different carriers.

B. **Alternative Freight Modes Are Also Intense Competitors to Railroads.**

The Carriers today face unrelenting competition from other transportation modes for much of their traffic. While not all traffic that currently moves by train could readily be moved by trucks or barges, the overlap is substantial and new traffic patterns are constantly being formulated which upset preconceived notions of what constitutes “truck” or “rail” or “barge” traffic.

For example, in some regions huge coal trucks are supplanting rail for moves long thought to be rail’s domain. Likewise, railroads have recaptured some movements of fresh fruits and vegetables in what had been considered to be the exclusive province of truckers. Rapidly changing fuel costs have continually redefined the “tipping point” between the modes over the last five years and have served to increase the already substantial amount of traffic that is “up for grabs” between the modes.

Exhibit 32 shows U.S. freight ton-miles by mode of transportation through 2007 (the most recent year for which data are available). The rail share has been trending upward since around 1990 and is now about 43 percent.

Gaining that share has been a long and difficult process. However, a not insignificant part of the rail market share increase reflects the huge growth in long-distance rail movements of coal from the Powder River Basin (“PRB”) in Wyoming. PRB coal is generally very low in sulfur content and consumption of PRB coal has surged over the past 20 years due to increasingly-stringent U.S. clean air laws. Today, rail movements of coal out of the PRB
are probably the most efficient rail movements of any commodity anywhere in the world. They also represent the single largest common carrier traffic origin for any transportation mode in the United States. However, as will be discussed later, PRB coal, like all coal movements, is severely endangered in the future due both to environmental pressures to curb fossil fuel-based greenhouse gases and the emergence of natural gas as an economically strong market competitor.

Railroads have also gained market share because of their relentless efforts to become more efficient. The transportation marketplace demands no less.

Massive government highway programs created and maintain the most highly developed road network in the world. Our nation’s roadway network covers more than 4 million miles — including hundreds of thousands of miles of high-quality intercity connectors — and allows truck access to virtually every potential customer in the country. A truck can go anywhere a railroad can go, and to countless places railroads do not go. Although rail intermodal service and, to a lesser extent, the ability to transload products has enabled railroads to reach many customers who lack rail sidings, most of the railroads’ customer base remains restricted to those firms having direct access to a rail line.

The Carriers also face intense competition from water carriers for liquid and dry bulk freight in many parts of the country. Tens of billions of dollars in government subsidies built and maintain our 25,000-mile system of publicly-provided waterways.

The Carriers’ ability to compete effectively against trucks and water carriers is compromised by the fact that the taxes and fees paid by trucks and barges do not come close to covering the full costs of their publicly-provided infrastructure.

Today, rail-competitive trucks — which are the heaviest and highest mileage among all trucks — pay fees that cover less than two-thirds of the costs of the damage these trucks cause to our highways. In addition, trucks do not pay for the increased cost of construction of heavier duty highways than would not be necessary without these heavier vehicles. The shortfall is made up through billions of dollars in annual subsidies to truckers from other highway users and from general taxpayers.36

36 Recent analyses from the Coalition Against Bigger Trucks found that, on average, 80,000 pound five-axle trucks currently underpay their federal cost responsibility by approximately $0.275 per gallon. The federal underpayment for other truck size and weight configurations rises to nearly $1.24 per gallon depending on the truck weight and type of truck. These figures increase substantially if state and local underpayments are considered. See Addendum to the 1997 Federal Highway Cost Allocation Study Final Report (2000).
Likewise, barges pay a fuel tax to offset the costs to the government of building and maintaining the inland waterway network, but the fuel tax has historically accounted for only around 20 percent of inland waterway infrastructure costs.\textsuperscript{37}

In other words, barges and trucks that compete against the Carriers for freight enjoy multi-billion dollar annual subsidies that the Carriers not only have to overcome but even have to help pay. This makes it much more difficult for the Carriers to compete and is another reason why it is impossible for the Carriers to simply pass on higher costs to their customers.

Unlike highways and waterways, freight rail infrastructure is overwhelmingly privately owned — the Carriers themselves are responsible for nearly all the costs associated with its construction and maintenance. If the amount Class I railroads paid for investment and maintenance of their right-of-way in 2010 ($12.1 billion after accounting for depreciation) were converted to a fuel tax equivalent, railroads would have paid approximately $3.43 per gallon — an amount that exceeds by an order of magnitude the taxes paid by competing modes to partially cover their cost responsibility for the publicly-built and maintained infrastructure they use. Class I railroads also paid $720 million in property taxes in 2010, almost all of which were assessed on rail operating infrastructure. If these property taxes — which truckers and barges do not pay, since the infrastructure they use is publicly owned — were included, the per-gallon fuel tax equivalent for railroads would rise another 20 cents to $3.63 per gallon.

C. Rail Industry Profitability is Further Limited by Product and Geographic Competition.

Product competition refers to the ability of a firm to substitute one product for another in its production process. If a Carrier customer has the option of substituting different products for those that require rail service, then it can use this product competition to constrain rail prices. For example, if the Carriers attempt to raise soda ash rates too high, manufacturers of phosphate feeds and fertilizers that use soda ash can substitute caustic soda — which can easily move by truck — for the soda ash.

Geographic competition refers to the ability to obtain the same product from, or ship the same product to, a different geographic area. For example, clay is used for taconite pelletization in Minnesota. This clay is available from Wyoming mines served by one railroad and from Minnesota mines served by another railroad. Iron ore producers have played one railroad against the other for clay deliveries. Likewise, a railroad serving a Kentucky coal mine or an Iowa grain elevator must price its transportation service at a level that makes that coal or grain competitive at destination compared to coal or grain

sourced from different states — or different countries — and transported by other transportation providers.

D. **Railroad Customers’ Countervailing Power Prevents the Carriers From Passing on Excessive Labor Costs.**

Many Carrier customers are large industrial firms with multiple plants and multiple products, some of which are served by other railroads and/or modes and some of which are subject to varying degrees of product and geographic competition. These companies can use their “countervailing power” to obtain price or service concessions from transportation providers by shifting, or often just threatening to shift, their traffic among their plants. For example, consolidation among chemical companies in recent years permits the remaining companies to enhance their leverage for service enhancements and price concessions to all of their facilities by seeking transportation bids for a “bundle” of the traffic at all of their plants.

E. **Technological, Regulatory, or Structural Changes that Affect Rail Customers Also Constrain the Carriers’ Ability to Raise Prices.**

Changes in the technology, regulation, and/or structure of an industry over time also provide competitive constraints for the Carriers. For example, the rise of mini-mills at the expense of integrated steel production facilities has negatively affected the total volume of steel-related rail movements. Likewise, improvements in the ability to transmit electricity long distances increase the pool of electricity generators able to supply a given region. When this happens, suppliers to existing generators — including coal hauling Carriers — become even more constrained. Likewise, as coal-based electricity generators face increasingly costly environmental constraints (see supra at p. 36) or as gas turbine technology and natural gas recovery technology improves to make natural gas-fired electricity generating plants more efficient and cost-effective, pressures increase on suppliers to coal-based generators, including the Carriers, to keep rates low.

Because of the competitive constraints summarized above, over the years the rail industry has survived more than it has prospered and its road back from the brink of financial ruin has been long and arduous. Although today the Carriers are earning relatively healthy profits, their future success is not a foregone conclusion. This is not a situation where the railroad industry is reaping windfall profits, or where there is an absence of serious market threats to the future vitality of the industry.

VI. **Myriad Risks Threaten the Carriers’ Traffic Base and Evince the Need for Moderation in Increasing Employee Compensation Levels.**

The demand for rail transportation is derived from the demand for the products of rail customers in other sectors of the economy, especially manufacturing, mining,
agriculture, and international trade. Even in good economic times, rail customers face their own competitive challenges, including rivals seeking to displace them at every turn. The Carriers must work continuously to attract new traffic to offset the erosion of their traffic base resulting from traffic lost to competitors, plant closings, changes in customer logistics systems and changes in the economy. Indeed, an estimated 10 percent of rail traffic “turns over” every year, forcing railroads to “run just to stand still.”

Especially with today’s uncertain economic outlook, virtually no major Carrier customer or Carrier-served market is free of significant competitive threats. The section below discusses several of the most important Carrier customer segments and highlights just a few of the issues and forces that create significant present or future risk for the Carriers by constraining their customers in these segments. Any diminution in the demand for these and other rail commodities would have a substantial negative impact on the Carriers’ financial performance.

A. Intermodal Traffic Levels Depend Upon International Trade Volumes and the Carriers’ Ability to Compete with Trucking.

As noted earlier, intermodal — what used to be known as “piggyback” — rail service has been the fastest growing major segment of the U.S. freight railroad industry over the past 25 years (see Exhibit 33) and can be expected to remain a key growth sector for the Carriers and their employees into the future. Today, intermodal accounts for around 21 percent of Class I revenue, second only to coal. Roughly half of U.S. rail intermodal traffic consists of imports or exports, so the growth (or stagnation) of U.S. international trade has a major effect on intermodal traffic volume.

By definition, intermodal is the most intensely competitive traffic segment, since everything that moves by rail intermodal can instead move by truck alone — and will, if the Carriers are not competitive in terms of their price and service offerings. There are no exceptions to this rule of competition.

To remain competitive for intermodal traffic, it has been absolutely necessary for the Carriers to make massive infrastructure improvements — such as building or significantly expanding intermodal terminals, adding thousands of miles of second main track and passing sidings, raising underpass clearances and rebuilding bridges to allow for intermodal trains to handle shipping containers stacked two high (a.k.a. “doublestacked”), and updating signaling systems to allow faster, more frequent intermodal trains. Also critical are operational improvements and service initiatives, often
in conjunction with other railroads and motor carriers, to improve the seamlessness of the service they provide. Because price is such a critical consideration for rail intermodal users, however, the Carriers are under constant market pressure to keep a tight rein on costs.

B. Coal Traffic Faces Severe Risks Due to Environmental Regulations and the Increased Availability of Alternative Power Sources.

Coal dominates U.S. electricity generation because it is the most cost-effective fuel choice, and freight railroads are a big reason for that.38 Railroads deliver 70 percent of coal shipments to their final destination, mainly coal-fired power plants. In fact, railroads deliver enough coal to meet the electricity needs of nearly every home in America. Coal accounted for 44 percent of tonnage and 24 percent of revenue for Class I railroads in 2010.

Although the rail share of coal deliveries has trended slightly upward over the past decade, it has done so in a market that is now static or even somewhat in decline. The Carriers continue to face a number of serious market constraints regarding coal traffic.

First, coal-fired power plants compete fiercely against power plants fueled by other energy sources not served by the Carriers. In 2010, non-coal fuel sources, such as natural gas and nuclear power, accounted for 55 percent of U.S. electricity generation — up from 48 percent in 1990 (see Exhibit 34).

Over the past six years, natural gas and renewable energy sources such as solar and wind have taken market share away from coal-fired electricity generation (see Exhibit 35). New technologies involving gas recovery from shale deposits have vastly increased the supply of natural gas that can be obtained economically. The result has been a sharp decline — on the order of 50 percent — in the delivered price of natural gas to electricity generators, which has made natural gas a much more potent competitor to coal than it was just a couple of years ago.

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38 See T. Considine, Powder River Basin Coal: Powering America, p. 15 (Dec. 21, 2009) (“Another key factor contributing to PRB coal competitiveness has been lower transportation rates…. Coal transportation rates declined 72% from 1979 to 2001”).
This product competition is a significant constraint on Carrier pricing, and thus, costs, if they are to remain competitive in the market. A Carrier serving a power plant cannot price its services so high as to make that plant's electricity uncompetitive compared to electricity generated from other generators and other fuels.

Second, coal-fired electricity producers are under enormous and increasing political, regulatory, and legal pressure to reduce environmental emissions, including “greenhouse gases,” particulates, sulfur dioxide, nitrogen dioxide, and mercury. Unfortunately for the Carriers and their employees, one of the quickest and least expensive ways for utilities to accomplish these environmental goals is to shift to natural gas or renewable generating capacity.

For example, the Environmental Protection Agency recently announced a series of new regulations that will sharply limit the amount of mercury, acid gases and heavy metals that coal plants can release into the air. Southern Company, the second largest U.S. producer of electricity from coal and one of the largest individual rail customers in the nation, recently announced that it would need to spend $13 billion to $18 billion through 2020 upgrading its coal-fired plants if the EPA goes ahead with the proposed rules. Southern announced that about 3,200 megawatts of coal- and oil-fired plants would be converted to run on natural gas and another 1,500 megawatts would be replaced with new natural gas plants. Southern said that, when all is said and done, about 40 percent of its coal burning production capacity could be retired or replaced with natural gas. Extend Southern’s response to all of the other coal-fired electricity producers and the Carriers potentially have a very serious problem.

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— a problem that is happening today, not sometime in a distant future.

Third, since transportation costs can be a large portion of the operating costs of coal-based power plants, utilities — with support from many legislators and regulators — are now demanding that railroads lower their rates for transporting coal. In essence, the Carriers are being asked to help pay for the environmental compliance costs faced by coal-fired power plants. Even though rail rates for delivering coal (as measured by average revenue per ton-mile) are lower than for any other major rail commodity group and even though average rail coal rates were 55 percent lower in 2009 than they were in 1981 (see Exhibit 36), the Carriers remain under enormous political pressure to refrain from raising coal rates — even in cases where long-term, well below-market contracts have expired and the Carriers have sought to bring rates back up to market levels.41

Fourth, significant consolidation among electric utilities in recent years increasingly permits bundling the traffic of many plants into one large “package.” A utility with such a package can, during price negotiations with Carriers, use this countervailing power to enhance its leverage for service to all its plants, and a utility with a large number of plants can “dispatch” the electricity produced by its plants according to the costs at each. The result is that the Carriers are often compelled to offer price and service concessions and must continue to have cost structures that allow them to do so if they are to retain the maximum amount of traffic available in a shrinking market.

Fifth, exports have provided a recent boost to coal. In the 10 years from 2001 to 2010, U.S. coal exports averaged 56 million tons. They were 81.7 million tons in 2010 (see Exhibit 37) — higher than any year since 1997. Because a significant portion of exported coal moves by rail, the Carriers certainly hope that recent increases in coal exports continue well into the future. No one can count on this happening, though. In recent years, U.S. coal exports have been buoyed by, among other things, a favorable exchange rate and severe production problems (mainly flooding) at mines in other countries (e.g., Australia) that compete intensively with U.S. coal in the international marketplace. There can be no assurance that these advantages for U.S. coal will continue into the future. Moreover, even the best years the Carriers have seen recently in this market are at least 20 percent lower than the volumes routinely seen 20 years ago.

In summary, the combination of competitive pressures that the Carriers and coal users face regarding coal will undoubtedly grow — accentuating the need for the Carriers to control costs in all areas of their operations if they are to retain as much of this endangered market as possible.

41 In 2009 (the most recent year for which commodity-level revenue per ton-mile data are available), average rail RPTM for coal was 2.21 cents. Average RPTM in 2009 for all commodities other than coal was 4.94 cents. See Surface Transportation Board, “Carload Waybill Sample” (2009).
C. Shipments of Motor Vehicles Were Hard Hit by the Financial Crisis and Will Recover Only Slowly.

It is well known, especially following the recent financial crisis facing the industry and subsequent major downsizing, that U.S. automotive firms, which operate in the largest and most competitive auto market in the world, are under tremendous pressure to control costs while increasing quality, performance, fuel efficiency, and safety. As Exhibit 38 shows, the recession devastated the auto industry, and rail auto-related traffic suffered greatly along with it. It will likely be years before the auto market, and auto-related rail carloads, fully recovers.

![Exhibit 38: U.S. Light Vehicle Sales vs. U.S. + Canadian Rail Carloads of Motor Vehicles & Equipment](image)

The need to increase profits and control costs has forced automakers to exert tremendous pressure on suppliers of all types to cut prices. Since railroads move around 70 percent of new automobiles from U.S. production plants, they are certainly feeling the impact of automakers’ efforts. Even without this new pressure, as it is, rail rates to automakers have clearly trended downward over the past 30 years (see Exhibit 36).

Serving the auto market has required railroads to invest billions of dollars in a fleet of specialized premium autorack freight cars, a vast national network of distribution centers, and advanced information technology to manage vehicle distribution. These resources are exceedingly expensive, but to meet the expectations and requirements of their automotive customers, the Carriers will have to continue to devote substantial resources to further improve their service to their automotive customers.

D. Intense Intermodal and International Competition Severely Limit Grain Shipping Rates.

Competitive pressures are also prevalent in the agricultural sector. Grain is one of the most important commodities for U.S. freight railroads. In 2010, Class I railroads originated 1.6 million carloads of grain (5.5 percent of total carloads) carrying 151.5
million tons (8.2 percent of total tons) and earning gross revenue of $4.84 billion (8.4 percent of total revenue).

Grain companies benefit from strong competition among railroads, trucks, and barges to carry grain. According to the most recent U.S. Department of Agriculture data available, the truck share of total U.S. grain transport was 53 percent in 2007, compared with 33 percent for rail and 14 percent for barge (see Exhibit 39).

![Exhibit 39: Modal Shares for Total U.S. Grain Movements: 1998-2007](image)

The truck share has actually been rising in recent years. As shown in Exhibit 40, over the past 10 years railroads have tended to carry smaller and smaller percentages of total grain production — more evidence of the competition the Carriers face for grain movements.

![Exhibit 40: Class I Tons of Grain Originated as a % of Total Grain Production](image)

The United States is the world’s top grain producer and exporter, but it competes with many other countries for global grain markets. Advances in the agricultural practices and transportation infrastructure in countries that compete with U.S. grain put ever-increasing pressure on U.S. grain to remain competitive. In today’s global agricultural markets, a price difference of just a couple of pennies per bushel can mean the difference
between U.S. producers making a major export sale and seeing that sale instead go to producers from Brazil, Argentina, Australia, Canada, or another country.

Another factor working against the Carriers regarding the transport of grain and related products is the increasing trend of processors to locate processing plants closer to major growing regions, thus reducing the need for long-distance rail transport. For example, the total number of ethanol plants rose from 50 in January 1999 to 204 in January 2011. The overwhelming majority of these plants are located in or very near primary corn producing areas in the Midwest, which reduces the demand for long-distance rail shipments of corn.

E. Restrictive Government Environmental and Safety Regulations and Intense Competition Constrain the Profitability of Chemical Freight.

Global competition and government regulation increasingly generates downward pressure on chemical transportation revenues. U.S. railroads have long derived more revenue from chemicals than from any other commodity group except coal and intermodal. In 2010, chemicals accounted for 7.6 percent of carloads, 10.1 percent of tonnage, and 14.1 percent of revenue for Class I railroads.

Because end users of chemicals are spread throughout the country, large volumes of chemicals and related products must be transported each year. Most moves are by truck or barge. According to American Chemistry Council data, in 2010 trucks accounted for more than half of chemical tonnage shipped and more than two-thirds of chemical transportation costs. Water transport and pipelines accounted for 20 percent and 4 percent, respectively, of chemical tonnage. The rail share of chemical tonnage in 2010 was 23 percent, a slight increase over its 21 percent average over the past 10 years (see Exhibit 41). The strong competition that the Carriers face from other modes for chemical traffic, along with the strong competition chemical users and producers face in domestic and global markets, put enormous pressure on the Carriers to contain chemical rates and enhance service as much as possible.

Environmental and safety regulations severely impact the chemical industry and chemical transportation. One example: states and localities around the country have either

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adopted or are considering adopting bans or taxes on plastic bags at retail stores. The material from which these bags are produced is commonly transported by the Carriers. This simple example is indicative of the types of pressures chemical firms (and, by extension, their suppliers such as the Carriers) will be facing in the future.

Global competition in the chemical industry is extremely intense. In 2010, U.S. chemical exports were $171 billion, but for most of those exports, the foreign buyers had non-U.S. alternative sources they could turn to if U.S. suppliers did not meet their price demands and other requirements. U.S. chemical imports were $167 billion in 2010, having more than doubled in the past decade. It is likely that the vast majority of these imports could have been sourced from U.S. suppliers had their price and other characteristics been more appealing to buyers.

All of these factors and more constrain shipping rates for chemical movements. Average rail revenue per ton-mile for chemicals was 28 percent lower in 2009 than in 1981 (see Exhibit 36). These rate reductions are reflective of the intense competitive constraints the Carriers and their customers operate under in the marketplace.

F. Lumber and Wood Product Shipping Volumes Were Devastated by the Financial Crisis and Are Projected to Rebound only Slowly.

Persistent economic malaise and the slow recovery in the housing sector have eroded freight volumes for lumber and forestry products. A large percentage of the lumber consumed in the United States is used in residential construction, and the U.S. housing market has been extremely weak for several years. Housing starts — i.e., beginning the foundation of a residential home — are a good indicator of the state of the housing market. As Exhibit 42 shows, rail carloads of lumber have fallen in direct proportion to housing starts. It will likely be many years before the housing market returns to pre-recession levels, meaning that rail carloads of lumber products will almost certainly remain depressed for years to come.

VII. LEGISLATIVE AND REGULATORY CHANGES HAVE THE POTENTIAL TO SERIOUSLY UNDERMINE FREIGHT REVENUES AND FINANCIAL RESULTS.

The previous section summarized some of the reasons why threats to key customers make it imperative for the Carriers to remain vigilant regarding the efficiency
of their operations. As if this were not enough, the Carriers also face the prospect of major regulatory and legislative changes that would make it vastly more difficult for them to remain financially healthy. A few of the many major potential impediments to the operational and financial performance of the Carriers are summarized below. They too point to the fragility of recent financial gains achieved by the Carriers and the fact that they are not guaranteed to continue into the future. As a consequence, it would be unwise and imprudent to saddle the industry with unfair, unnecessary, and imprudent labor costs.

A. Current Proposed Reregulation, if Enacted, Would Return the Carriers to the Untenable Pre-Staggers Environment.

At the beginning of this submission we noted that the Staggers Rail Act of 1980 replaced rigid and arcane regulation that had come to control nearly every aspect of U.S. rail operations. By the 1970s, the cumulative effect of decades of stifling government control, combined with competition from other modes and changing shipping patterns, had nearly crippled the rail industry. In passing the Staggers Act, Congress recognized that railroads faced intense competition for most freight traffic, but prevailing regulation prevented them from earning adequate revenues and competing effectively. To survive, railroads needed a new regulatory system that would allow them to establish their own routes, tailor rates and services to market conditions, and differentiate rates on the basis of demand.

Today, 30 years later, the Staggers Act has finally proven to be a tremendous success. America now has the safest, most productive, and most affordable freight railroads in the world. Since its passage, railroads have sharply increased the amount of freight they haul, become far safer and more reliable, invested hundreds of billions of dollars in their infrastructure and equipment, and raised profitability from anemic levels — all while saving their customers hundreds of billions of dollars in lower freight rates.

Despite the severe harm caused by excessive regulation prior to Staggers and the huge benefits that have accrued since it passed, some rail customers and their legislative allies want to again give regulators wide control over crucial areas of rail pricing and operations. Proposals to alter the current system of railroad regulation include a variety of approaches — e.g., forcing railroads to allow other railroads access to their tracks under confiscatory terms, limiting railroads’ ability to charge different customers different prices, or directly or indirectly capping rail rates at less-than-market, cost-based levels.

If successful, reregulation would force the Carriers to lower their rates to certain favored customers at the expense of other customers, rail employees, rail investors, and the public at large. Several billion dollars per year in revenue could be lost to railroads, with little or no corresponding decrease in expenses. The Carriers would be unable to cover the full cost of providing service across their systems, and would be unable to make
the massive private investments required to meet our nation’s growing freight transportation needs. Disinvestment in the rail system would be inevitable.

To date, the rail industry has been able to fend off repeated attempts at reregulation, but future success in this effort is far from guaranteed. Numerous major rail customer groups, including the American Chemistry Council (the primary trade association for the U.S. chemical industry), the Edison Electric Institute (investor-owned utilities), the American Public Power Association (government-owned utilities), the American Forest and Paper Association (forest products), a variety of regional and national agriculture-related interest groups, and others are all strongly pursuing railroad reregulation.

Related to this effort is an attempt by these same groups to change existing antitrust law as it pertains to freight railroads. Freight railroads are subject to almost all antitrust laws, including those that prohibit firms from colluding with each other to set prices, allocate markets, or unreasonably restrain trade in some other way. Like many other industries, though, railroads have a few very limited federal antitrust exemptions. The exemptions applying to railroads only cover areas where the STB has regulatory authority over railroads.\(^43\)

Nevertheless, legislation to repeal railroads’ limited antitrust exemptions has been proposed and is currently out of committee and on the Senate floor.\(^44\) The goal of proponents of this legislation is to use antitrust issues as a means to achieve many of the same results they are seeking via the reregulation effort described above. The clear intent of the legislation’s sponsors is to force reductions in rail rates.

In addition to the legislative proposals noted above, some rail customers are also trying to achieve their goals by forcing changes in current regulations. To this end, they and their allies in Congress and elsewhere are putting significant pressure on the STB to reinterpret existing regulations in ways more favorable to these rail customers, to implement new regulations to their liking, and to decide rate cases in the their favor.\(^45\) This puts railroads under enormous political and public pressure to keep rates as low as possible.

Together, potential regulatory changes present massive risk to the Carriers’ continued viability.

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\(^{43}\) For example, rail mergers are subject to approval by the STB, rather than by the Federal Trade Commission or the Department of Justice.

\(^{44}\) S. 49, Railroad Antitrust Enforcement Act of 2011, reported by the Senate Committee on the Judiciary on March 3, 2011.

\(^{45}\) The details are beyond the scope of this submission, but rail customers who believe they are being charged excessive rail rates can petition the STB to order the railroads to lower those rates.
B. Proposed Increases to Truck Size and Weight Restrictions Would Strengthen the Carriers’ Most Formidable Competitors.

Increases in allowable truck sizes and weights constitute another significant potential obstacle to the growth and vitality of the Carriers. Under current federal law, trucks operating on most of the 46,000-mile U.S. Interstate Highway System can have a gross vehicle weight of no more than 80,000 pounds. Longer combination vehicles (LCVs — a tractor and two or more trailers with a gross vehicle weight of more than 80,000 pounds) are limited to certain highways in 21 mostly western states that allowed such trucks before 1991. Since 1991, various interests have pursued a relaxation of existing truck size and weight limits on either a corridor, state, regional, or national basis.

As noted earlier, rail-competitive trucks already significantly underpay for the damage they cause to our nation’s highways. According to the U.S. Department of Transportation’s Highway Cost Allocation Study, combination trucks weighing 80,000 to 100,000 pounds pay just half the cost of the damage they cause to our highways; trucks weighing more than 100,000 pounds pay only 40 percent of the damage they cause.

Relaxing truck size and weight limits would make this inequity much worse because even more freight would be transported by heavy trucks. It would lead to lower truck costs, which, in the competitive freight transportation market, would be passed on to their customers in the form of lower truck rates. Lower truck rates would lead to diversion of traffic from the Carriers to trucks, or to reduced rail rates as the Carriers try to remain competitive and retain traffic. Either result would reduce Carrier revenues and profits.

According to the most recent available study on the subject from the U.S. Department of Transportation, increased truck size and weight limits would reduce railroad revenues by $2.9 billion to $6.7 billion per year — with disastrous results for the Carriers. Contribution to railroad fixed and common costs would fall by $2.1 billion to $3.1 billion per year, curtailing the funding that would be available for current and future investments. The reduction in investment would directly translate into reduced capacity, lower efficiency, degradation of service, a diminished ability to handle freight, and, eventually, further disinvestment.

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46 A few highway segments that allowed higher weights in 1991 were “grandfathered.”


48 Id.

Another important issue that could significantly affect the Carriers’ ability to compete effectively in the transportation marketplace is the increasing demand for both intercity and commuter passenger rail service over freight-owned tracks.

Nearly 97 percent of the approximately 22,000 miles over which Amtrak operates, as well as a significant portion of the mileage over which commuter rail providers operate in cities around the nation, are actually owned by freight railroads. In addition, the vast majority of the several dozen proposals to either start new commuter rail service or expand existing operations call for the use of freight railroad rights-of-way. The U.S. Department of Transportation has designated 11 corridors for the introduction of high-speed passenger rail systems across the country — also mostly on tracks owned and used by freight railroads.

To the extent that passenger rail interferes with freight operations, freight carriers suffer and their ability to compete effectively for freight traffic is compromised. Unfortunately, that is a real threat. Passenger rail operations are inherently run at a significant financial loss and must be subsidized by various levels of government. With budgetary pressures as they are, policymakers are doing everything they can to reduce the costs associated with the provision of public services (such as passenger railroading) while still being able to provide the service.

In the context of passenger railroading, that means passenger rail providers often look to freight railroads. Rail right-of-way provides a useful example. It would be prohibitively expensive for passenger rail operators to start from scratch to build a passenger rail network. As a result, they generally seek the use of existing freight rail right-of-way. Freight railroads take the position that to the extent that new infrastructure built for passenger trains is constructed on freight railroads’ privately-owned right-of-way, the ability to operate freight trains as needed and the opportunity to expand further freight service must be fully preserved. If current or expected freight traffic levels are such that there is no spare capacity for passenger trains, then the passenger trains simply cannot operate there. Not surprisingly, this message is sometimes not well received by public officials or passenger rail operators. When this happens, they generally use tools at their disposal — including public and political pressure — to try to obtain the outcome they desire.

While the Carriers continue to seek full compensation from passenger railroads for the use of freight-owned assets, they have not always been successful in doing so and it is anything but certain that Carriers will be successful in the future. This is particularly the case today with increasing public interest in providing rail passenger service as an alternative to highway congestion. To the extent freight railroads are unsuccessful in
obtaining full compensation, their operations and, therefore, their financial performance will suffer.

Finally, to the extent that freight railroads are penalized for operational deficiencies of passenger rail, the Carriers’ financial performance will suffer. This isn’t just an idle possibility. Under current regulations that freight railroads are trying to change, freight railroads will be subject to financial penalties if certain passenger train on-time performance measures developed and administered by Amtrak are not met.

VIII. GROWING SAFETY AND SECURITY EXPENDITURES WILL CONTINUE TO COMPETE FOR CAPITAL INVESTMENT: EXCESSIVE LABOR COSTS WILL ONLY EXACERBATE THIS PROBLEM.

Nothing is more important to the Carriers than safety. The rail industry’s excellent safety record reflects its strong commitment to safety. From 1980 to 2010, the train accident rate fell 77 percent, the rail employee injury rate fell 82 percent, and the grade crossing collision rate fell 81 percent (see Exhibit 43). In fact, 2010 was the safest year ever for U.S. railroads, breaking the record set in 2009. The Carriers are proud of their safety record, which results from their recognition of their responsibilities regarding safety and they devote enormous resources to its advancement.

A commitment to safety that permeates the workplace is critical to promoting safety on a railroad. The Carriers have that commitment, but a healthy balance sheet is critical to meeting it. A financially-viable Carrier will be in a much better position to invest in safety enhancements (e.g., heavier rail, newer freight cars and locomotives, technology R&D, more and better training, and so on) than a financially-weak Carrier. The record investments that the Carriers have made in their infrastructure, equipment, and technology in recent years have made the Carriers much safer, and these investments were made possible by the moderate improvements in profitability that the Carriers have enjoyed. Consequently, actions that would create significant new spending requirements and/or would unduly restrict rail earnings could have unintended negative safety consequences in addition to negative capacity, efficiency, and service reliability consequences.

Finally, it is an unfortunate reality that railroads and other U.S. businesses must devote far more resources to security than was necessary prior to the events of September 11, 2001. Since then, the Carriers have been required to devote more resources, both human and capital, to securing their terminals, rerouting hazardous materials to minimize...
risks, developing and using risk analysis processes, training their employees in security processes, and securing their international border crossing points and seaport-related terminals. It is not possible to predict what security-related changes the Carriers will be required to implement in the future, but it is certainly conceivable that required changes could be significant — e.g., posting guards at rail bridges and tunnels or restrictions on where and how certain commodities could be hauled. These security measures all compete for the same resources as do other aspects of the Carriers’ rail operations, including labor and capital investments.

IX. CONCLUSION.

The Carriers today are stronger financially than they were just five or ten years ago. This should be considered a very positive development, because improved earnings allow the Carriers to more readily justify and afford the massive investments that are needed to keep their track and equipment in top condition, improve service, and add the new rail capacity that America will need in the years ahead.

That said, the Carriers’ earnings today remain, at best, no better than average compared with other businesses against which they must compete for capital, and the Carriers have not yet achieved the necessary level of long-term revenue adequacy needed to ensure the their future sustainability. The Carriers’ financial improvement is still a work in progress and would be threatened by excessive compensation cost growth.

For these reasons, the Board should recommend the Carriers’ proposal as a fair and equitable settlement that balances the legitimate needs of the Carriers with the welfare of Coalition Union employees. The Carriers’ proposal allows the Carriers to continue their upward trajectory of success and enhances their ability to provide Coalition Union employees with long-term, high quality jobs.
Respectfully submitted,

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Education:
1968  PhD, Harvard University, College of Arts and Sciences, Joint Degree in Political Economy and Government.
1965  MPA, Harvard University, Graduate School of Public Administration.
1963  AB, Wesleyan University, Middletown Connecticut, with High Honors in General Scholarship and Distinction in Government.

Business and Professional Experience:
2007 – Present  Adjunct Professor, Rail Management Program, Michigan State University
2004 – Present  Principal, The Gallamore Group, Transportation Consulting
2001 – 2006  Director, The Transportation Center, and Professor, Managerial Economics and Decision Sciences, Kellogg School of Management, Northwestern University.
1998 – 2001  Assistant Vice President - Communications Technologies, and General Manager - Positive Train Control Program, Transportation Technology Center, Inc. (TTCI).
1987 – 1998  General Director - Strategic Analysis, Union Pacific Railroad
1987 – 1987  Railroad Securities Analyst – Sanford C. Bernstein
1981 – 1987  Director, Strategic Planning, Union Pacific Corporation
1975 – 1977  Associate Administrator - Planning, Urban Mass Transportation Administration (now Federal Transit Administration), U.S. DOT
1970 – 1974  Director of Policy Development, Common Cause
1968 – 1970  Economist, Office of the Secretary of Transportation

**Honors and Recognitions:**

2004  National Academy of Sciences, *Lifetime Affiliate*

1980  *Meritorious Presidential Rank Award*, conferred by President Carter (the first year awarded)

1962  *Phi Beta Kappa*, Wesleyan University (Junior Year)

**Representative Official Panels and Professional Contributions:**

2006  Chair, Committee to Review the Federal Railroad Administration’s Research and Development Program.


1998 – 2004  National Academy of Sciences, National Research Council, Transportation Research Board, Member - Program Oversight Committee for IDEA High Speed Rail program.

1997 – 2000  Board of Advisors of the Eno Transportation Foundation, Inc.


**Representative Papers and Publications:**


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Education:
1967 – 1971 Tulane University, New Orleans, Louisiana
Bachelor of Science in Engineering – Civil Engineering
1971 – 1972 Tulane University, New Orleans, Louisiana
Master of Engineering – Civil Engineering
Doctoral work in Mathematical modeling of Transportation Systems

Employment:
2008 – Present Association of American Railroads; Washington, DC
Senior Vice President, Policy and Economics
1996 – 2008 Union Pacific Railroad; Omaha, Nebraska
Vice President and Executive Director, Business Development
Vice President and General Manager, Industrial Products
1992 – 1996 Southern Pacific Transportation Company; Denver, Colorado
Vice President, Network and Corporate Development
Managing Director, Yield Management
1987 – 1992 Burlington Northern Railroad; Fort Worth, Texas
Assistant Vice President, Chemicals Market Manager,
Petrochemicals Director, Market Analysis
1986 – 1987 Atlantic Richfield Corporation - Alaska; Anchorage, Alaska
Director of Transportation
1981 – 1986 The Alaska Railroad; Anchorage, Alaska
Director of Marketing
Assistant Professor of Transportation

1972 – 1976 United States Army; Heidelberg and Mannheim, Germany
Officer-Transportation Corps and Corps of Engineers

**Significant Recent Analytic Projects:**

2008 - Present Manage development of second generation rail capacity study for Association of American Railroads including network capacity analysis, development of modal shift models and application of economic scenarios.

Annual development of Rail Cost-of-Capital Submittal for submission to the Surface Transportation Board.

Quarterly development of Rail Cost Indexes for submission to the Surface Transportation Board.

Development of analysis to measure the factors causing rail network congestion and use of those factors to predict outcomes of regulatory policy on rail costs and service performance.

2006 - 2007 Development of rail network flow model designed to replicate detailed actual flows versus the traditional shortest impeded path approach. Designed to meet requirements of Surface Transportation Board’s Simplified Stand Alone Cost approach to price reasonableness analysis.

2005 - Present Manage development of multiple network and economic analyses of impacts of changes in rail economic regulatory structures including detailed investigations of impacts of legislative and regulatory proposals.

1999 - 2003 Multiple analyses of rail industry consolidation and network strategies and the potential economic and operational impacts of those strategies.

1994 - 1996 Redesign of rail corridor service structures and infrastructure requirements to handle substantial increases in rail business levels. Subsequent management of implementation of designs.

**Other Professional Activities:**

Transportation Research Board Executive Committee

Transportation Research Board Rail Executive Board

National Cooperative Freight Research Program Oversight Committee

U. S. Department of Transportation; Bureau of Transportation Statistics Advisory Board

Board of Trustees- Barringer National Railroad Library; University of Missouri, St Louis

Tulane University – Board of Advisors, School of Science and Engineering

Transportation Research Board – Chair and participant as member of project research panels