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OVERSIGHT HEARING ON THE STATE OF THE RAILROAD INDUSTRY

HEARING

BEFORE THE

SUBCOMMITTEE ON SURFACE TRANSPORTATION AND MERCHANT MARINE

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED SEVENTH CONGRESS

FIRST SESSION

MAY 9, 2001

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OVERSIGHT HEARING ON THE STATE OF THE RAILROAD INDUSTRY

WEDNESDAY, MAY 9, 2001

U.S. SENATE,
SUBCOMMITTEE ON SURFACE TRANSPORTATION
AND MERCHANT MARINE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Subcommittee met, pursuant to notice, at 10:05 a.m. in room SR–253, Russell Senate Office Building, Hon. Gordon Smith, Chairman of the Subcommittee, presiding.

OPENING STATEMENT OF HON. GORDON SMITH, U.S. SENATOR FROM OREGON

Senator SMITH. Good morning, ladies and gentlemen. I apologize that our schedule in the Senate has got us running all over and voting and I felt it best to start this when we did not have to be interrupted. So the votes are taken and now it is time to have this hearing.

I am pleased to call to order the second Surface Transportation and Merchant Marine Subcommittee hearing of the 107th Congress. In March, Chairman McCain and I announced the Subcommittee's intention to hold a series of hearings on rail transportation. Our first hearing, in March, focused on the Surface Transportation Board and its ongoing efforts to carry out its statutory responsibilities. Today's hearing will address the state of the rail industry, including its current financial condition, capacity constraints, and long-term capital investment needs.

Additionally, we plan to schedule a hearing to consider rail shipper concerns, including service reliability, rates, and competition.

As I said during the March hearing, rail transportation issues are complicated, whether considering rail service or capacity or competition. Therefore I am pleased a number of prominent rail industry officials and financial experts were available to clear their schedules and appear before us today.

I look forward to hearing their insights into some of these complex issues.

For the benefit of my Subcommittee colleagues—I am sure they are listening—I should point out that each of today's rail industry witnesses provides rail service to my home State of Oregon. While I may be a new Member of this Committee and these issues, I do know there is a prevailing view among some that more is better. While I agree that we are fortunate to be served by two Class I carriers and 19 short line railroads, Oregon's shippers have expressed

many of the same concerns that shippers have in other States. But that is a topic for the next hearing.

Today the Subcommittee will address the industry's financial condition and its projected infrastructure investment needs. I expect we will hear views about the impact of regulation on the industry and I understand we will be hearing some differing viewpoints among the witnesses concerning the revenue adequacy of the railroads.

I am particularly interested in hearing more about concerns of smaller railroads and hope we can focus on how best small carriers can fund the high costs of track improvement projects. Short line carriers are the lifeline for some rural communities and I want to ensure that Congress does not forget about this important sector of our national transportation system.

I would like to extend a special welcome to one of my constituents who is testifying today, Mr. Walter Brickwedel, President of the Oregon Short Line Railroad Association. I look forward to hearing your views regarding the State of Oregon's short line railroad infrastructure.

I will now turn—well, there are no others here yet, but I believe some will be here soon. We will turn to our first panel. Our first panel will consist of: Mr. Richard K. Davidson, Chairman and CEO of Union Pacific Corporation; Mr. Matthew K. Rose, President and CEO of the Burlington Northern Santa Fe Corporation; and Mr. Walter Brickwedel, President of the Oregon Short Line Railroad Association. We invite you all to the table, and we will start with you, Mr. Davidson.

We thank you each for being here.

STATEMENT OF RICHARD K. DAVIDSON, CHAIRMAN AND CEO, UNION PACIFIC CORPORATION

Mr. DAVIDSON. Good morning, Senator.

Senator SMITH. Good morning. Good to have you here.

Mr. DAVIDSON. I am Dick Davidson and it is commonly known that I am the oldest rat in the barn as far as the railroad industry goes. I have been at this 41 years.

Senator SMITH. I have heard you described in better terms than that.

Mr. DAVIDSON. I would like to say a few things about the state of the railroad economy. We, like many other industries today, are facing a pretty soft economy. We went from a record level of carloadings in October last year to a record low level of carloadings in the month of December. We just literally fell off the face of a cliff.

As you can see on the chart here in front of you, it has been sort of like a roller-coaster since the end of December: down somewhat in December, up strongly in January, down strongly in February, and then flat ever since. That is the way it looks to us it is going to be throughout the second quarter.

However, we know that will not last forever. The business will strengthen and the railroad industry will be faced with good growth again.

I have submitted a lot of testimony in my written submission that I will not bother you with now, but we talk a lot about the

new services we have introduced, and a lot of it is your part of the country, along the I-5 corridor running from the Canadian border to Southern California. But in order to continue that new service and to grow our business, we have to be able to invest in our infrastructure. That is the key to providing good service into the future.

You may not be aware of the fact, but the railroad industry is the most capital-intensive business in America by far. We invest over 20 percent of our revenues back into the infrastructure of the property. The next most capital-intensive industry is the paper industry, at about one-quarter of that level.

Over the last 5 years, the Union Pacific has invested over $10.5 billion in capital. This year, even in a soft economy, we are going to invest somewhere between $1.6 and $1.9 billion. Last year, in the year 2000, we acquired over 450 new locomotives. They are almost $2 million apiece, so you can see what kind of an expense that is. We installed about 1,200 miles of new rail and over 3 million cross-ties. This year, even in a soft economy, we are going to acquire over 500 new locomotives and have a similar track program. So it is quite capital-intensive and we clearly need to earn an adequate return to be able to continue to fund that.

As to the issue of rail competition, contrary to a number of misconceptions, it is very much alive and healthy. It was a popular misconception that our merger with the Southern Pacific reduced competition, but indeed it did just the contrary. Southern Pacific had been losing over half-a-billion dollars a day—half-a-million dollars a day, excuse me, and it had had negative earnings for 15 of its last 17 years.

So if we had not acquired SP, it truly would have died. Anyplace that competition was eliminated as a result of acquiring the Southern Pacific, another railroad was placed in its stand so it could provide competition. Burlington Northern Santa Fe became the recipient of over 4,000 miles of either trackage rights or line acquisitions from us, and of course, BNSF is a big, strong, powerful company with enormous reach that provides far more competition than the Southern Pacific ever could have.

New competition was fostered by the STB, too. When it approved our merger, the STB mandated that companies have the right to build transfer facilities or retain the right to build in or build out to other railroads to get new competition. A wonderful example of that is the BNSF has just announced a build-in in south Texas to—well, not so wonderful from my standpoint, but I guess from Mr. Rose's and the customers' standpoint—to a large chemical facility at North Seadrift, Texas, which is now Dow. It was Union Carbide.

Additionally, that was done in the mid-1980s when Union Pacific spent over $500 million to get access to the Powder River Basin. The important thing about all of these is it was done through arm's length negotiations with an economic incentive to do so. None of those had government intervention forcing it to happen. It was where the free marketplace was at work.

You hear people talk about the monopoly pricing of the railroad. Well, if we do that we do not do a very good job of it, because we are still not capital adequate. As you can see on the chart in front of you, our return on investment is still below the cost of capital. While it is far better than it was when the Staggers Act became

law in 1980, it is still not adequate. We earn less return than what we spend. It is something that we still have a long ways to go on.

But in spite of that, there are a number of customers and shippers out there that would like to force us to give access to our facilities to our competitors, something if you suggested to our customers that they should do, that they should give access to their competitors to use their facilities, they would fight to the death over. So obviously, we feel the same way about that.

Not only that, if forced access were mandated they want to impose price controls, maximum prices that the railroads could charge for a specific segment of a movement, which would not return an adequate rate of return to keep the infrastructure up to speed like it should be. So clearly, it is a bad idea.

Notwithstanding the disastrous consequences of that, people that favor re-regulation claim that open access is required to protect captive shippers. I want to talk a little bit about captive shippers. We did an intense survey of people that had located on our line in recent years and over the past 3 years we have had 554 new plants that have located on our railroad. Of those 554 new plants, 465—or over 80 percent—chose voluntarily to locate on a site served just by Union Pacific.

They could have chosen a site served someplace by two railroads if they had desired, but they obviously did not want to. This choice of a location was a free market decision made by those customers. Their choice, and similar choices by other shippers, shows there is no justification for the far-reaching proposals that we now hear.

We would strongly urge you to reject all re-regulation and instead allow the free market to continue to work. It is working and has worked since Staggers became the law. Otherwise, we will return to the bad old days of pre-Staggers, when 20 percent of the railroad industry was bankrupt and we had about a $20 billion capital shortfall.

Thank you very much for permitting me to speak this morning.

[The prepared statement of Mr. Davidson follows:]

PREPARED STATEMENT OF RICHARD K. DAVIDSON, CHAIRMAN AND CEO, UNION PACIFIC CORPORATION

Good morning. My name is Dick Davidson, and I am the Chairman and CEO of the Union Pacific Corporation. I am pleased to be here today, and I thank you for the opportunity to testify about the state of the rail industry.

However, before I begin my testimony, I should probably tell you a little about my background. I started as a brakeman on the Missouri Pacific Railroad in 1960. I worked my way through the operating ranks at Missouri Pacific to become the Vice President of Operations. Union Pacific Railroad then acquired the Missouri Pacific, and I have held various positions with the UP including Executive Vice President of Operations, Chairman and CEO of the Railroad, and Chairman and CEO of the Corporation. I have been part of the rail industry my entire working career. I tell you this because our industry's history is critical to our future success. I was part of this industry when the government heavily regulated it, and I have seen first-hand the lack of investment and stagnation that occurs when the government, rather than the marketplace, determines what constitutes competition. Since 1980, most of the shackles of government regulation have been lifted. This has meant increased investment, increased productivity and increased safety. At the same time, rates have fallen over 50%. There are some who want to return to regulation. As one who lived through those dark times, I can safely say that would be a terrible mistake.

As you know, our industry has gone through a series of mergers, and service disruptions followed for many rail customers. In our case, we came out of those problems in 1998, and I am happy to tell you that UP is once again strong and healthy.

In 2000 our traffic grew by 4% on top of a 7% growth in 1999. Although we are in the midst of a slowing economy, as you can see from Attachment 1, we are optimistic about continued growth in the future.

To aid that growth, we have recently introduced a broad range of new service products. These include:

- I-5 service that provides express service from the Pacific Northwest to Oakland, Los Angeles, and Phoenix;
- Intermodal outreach;
- Auto parts transload; and
- Speed Link.

The I-5 service is a product we would not have been able to offer without the UP/SP merger. Prior to our merger with the SP, no railroad had single line service up and down the West Coast. Now, as a result of the merger, both the UP and BNSF have this capability. As you can see from Attachment 2, this service allows us to take traffic from the Pacific Northwest to various cities in the Southwest in a 5, 7, or 9-day time frame, depending on the customer's needs.

The other three services expand our market reach by providing high quality transportation designed to meet our customers' requirements. Some of these products combine premium train service with truck and transload service. Our goal is to offer products where we can partner with trucks to offer our customers services based on what each of us does best—rail for the long haul and trucks for the short haul.

The Intermodal outreach program is truly unique. Partnering with trucks based on what each of us does best, we have been able to expand our market reach. With this program, we go to customers who have not been able to use rail service because they are beyond our terminus. A truck picks up or drops off the merchandise, brings it to us or takes it from us, and we handle the long haul. As you can see from Attachment 3, this has allowed us to reach into places like Detroit and Columbus.

The auto parts transload is another example of partnering with trucks (Attachment 4). With this product, three truckloads of auto parts are shipped to St. Louis and put into one boxcar. We then take the auto parts by train to Mexico City. Shipping these parts by truck alone takes eight days. By partnering with trucks, we can now deliver the parts in six days and provide substantial savings to the customer.

Our newest product offering is Speed Link (Attachment 5), and it started in mid-April. As with the other services, this product also has us partnering with trucks. Speed Link is focused in the I-5 corridor along the West Coast. It again is geared to customers who have not traditionally used rail. A truck will go to the customer, pick up or drop off the merchandise, bring it to us or take it from us at a transload center, and we will handle the long haul. This service is aimed at business that would normally go by truck from the Portland area to Los Angeles, and we are able to get our customers' goods to destination in 45 hours.

We have also created new alliances with our connecting railroads to provide new services and improve existing ones. These include:

- Express lane service with CSX for food and food products;
- UPS coast-to-coast with Norfolk Southern;
- Pacific Northwest Canadian-American service with the Canadian Pacific;
- Joint dispatching with the BNSF; and
- Joint purchasing with the six largest railroads.

While Speed Link and the other services I talked about have us partnering with trucks, these products have us forming alliances with other railroads to offer new services.

One of our most exciting new products is express lane service with CSX (Attachment 6). With this service, we offer seamless transcontinental service to bring perishable food and food products from California and the Pacific Northwest to the East Coast. This started out with 40 cars on one train going from the Pacific Northwest to New York and Boston. It has been so successful that we are now expanding the service to Georgia, Florida, and Philadelphia. We guarantee this service, but because our service has been so consistent, only two of our many customers have purchased the guarantee. These are customers like Sunkist and Grimmway Farms who haven't used rail for years because the commodities they ship are perishable. In addition, 40% of this business originates on shortline railroads that interchange the business to us. Using alliances with shortline and Class I railroads, we are able to bring these customers back to rail.

Another great example is our alliance with the Norfolk Southern to bring new, improved seamless service to UPS, one of our major customers (Attachment 7). UPS came to us requesting five-day, coast-to-coast service. By working with the Norfolk Southern as if we were operationally one railroad rather than two, we were able to meet that customer's needs. I am proud to say that we have a near perfect record,

with only 2 out of 12,121 units missing their sort since the inception of the program 10 months ago. (A sort is our deadline that requires us to arrive at our destination within a prescribed two-hour window.)

The Pacific Northwest Canadian-American Service with the Canadian Pacific Railroad is another example of how alliances work (Attachment 8). The Canadian Pacific sweeps the Pacific Northwest for products such as potash, lumber and paper. Then we partner with them to provide seamless service to central California. We can do this two-to-three days faster than before, and it is so successful that we have been able to increase the volume of this traffic by about 30% over the last couple of years.

The final example is not a new service line, but it is an example of how the rail industry is working together to provide better, faster service to our customers. There are many places the BNSF and the UP operate together, both in the same vicinity and over each other via trackage rights. To facilitate the movement of our trains in busy corridors and terminals, we have opened joint dispatching centers (Attachment 9). Instead of each railroad controlling operations from their own control center, we have combined dispatching into a single office, enabling both of us to move more trains and better service our customers.

As anyone in a service industry will tell you, service is always an issue, but as these products illustrate, we are constantly striving to improve. We are also introducing new improved services for other segments of our customers. For instance, we have created what we call the Freeport Pipeline for Dow and Occidental Chemical.

Working in a true partnership with Dow and Occidental, the Freeport Pipeline creates trainload movements out of what were previously carload movements. Working with our customers to change their shipment patterns, we are able to bypass terminals, dramatically reduce cycle times, and meet our customer's 95% on-time delivery objective. In return, they are able to reduce costly inventory carrying charges, as well as the number of cars in their fleets.

In all these cases, it is important to note that rather than just offering these products, we started by designing reliability into the product itself, thereby increasing our service dependability. By doing so, we can expand our revenue base, increase our productivity by getting better and more use out of the equipment we have, take more trucks off the road, and provide first-class service to our customers.

Having said that, the real key to service is investment. Capital investment in the rail industry is like food to the human body. Without it we will wither and die. As a percentage of total revenues, the rail industry is the most capital intensive in the U.S. As you can see from Attachment 10, we invest over 20% of our revenues back into the system. The closest industry to us in that regard is the paper industry, and they only re-invest 5.5% of their revenue. Unfortunately, this level of investment is still not enough. We still do not earn our cost of capital, which I will discuss later, and as a result, the financial marketplace will not allow us to invest as much as we would like.

Over the past five years, Union Pacific has invested over $10.5 billion in our plant and equipment (Attachment 11). This year we expect to invest up to $1.9 billion. Last year we acquired 451 new locomotives at nearly $2 million a unit. We replaced 1,185 miles of rail and installed 3.3 million ties at a cost of $627 million. This is money we have to spend to keep the railroad in the shape it needs to be in to meet the demands of our customers.

A good example of the power of investment is our addition of a third main line from North Platte, Nebraska to Gibbon, Nebraska (Attachment 12). This is the busiest stretch of freight railroad in the world, and triple tracking this segment of line cost $327 million. Was it worth it? Absolutely. As the chart indicates, prior to the triple-track project, we were able to get 107 trains a day over this segment of line, and our average speed was 23.8 mph. Today we are running over 140 trains a day over that line at an average speed of 36.4 mph. That is a 30% increase in trains and a 53% increase in speed. This also has allowed us to cut our recrew rate by 80%. (The recrew rate is how many times we have to change the crew on the locomotive.) This makes us more efficient, with our customers being the ultimate beneficiaries.

Without the ability to generate capital, we would not be able to take on this kind of project or offer the kinds of improved services I outlined earlier. Capital also allows us to make sure we run a safe railroad for our employees and the public. As a service company, our main goal is to serve our customers, but our number one priority is the safety of our employees. As you can see from Attachment 13, since deregulation we have made huge strides in this area as well. Accidents, injuries, and loss or damage to our customers' merchandise are all down substantially. There is a direct correlation between the ability to invest and the safety of our workforce.

All of this would be put in jeopardy by injecting the government back into the rail industry. Some of our customers complain that as a result of mergers, there is a lack of competition in our industry. We believe these complaints are not really about consolidation in the rail industry, but rather they are attacks on our ability to differentially price our services. One of the major benefits of the Staggers Act (the act that partially deregulated the rail industry) is that it allows us to act like any other business in the United States with regard to pricing. This is called differential pricing, and it is the ability to charge what the market will bear. Every business in the U.S. does this. However, with the rail industry, while we can price differentially, the Staggers Act provides for high-end rate protection for shippers. This formula has worked exceedingly well over the past 20 years.

So how is competition in the rail industry? We believe it is healthy.

For instance, our merger with the Southern Pacific did not reduce competition; it increased it. The SP was a struggling railroad. Prior to our merger, the SP had a negative cash flow in 15 of its last 17 years. At the time of our merger, it was losing a half million dollars a day. It could not invest, and with the merger of the Burlington Northern and the Sante Fe Railroad, the SP knew it could not survive. So how did our merger increase competition? First, no customer that had been served by both the SP and the UP went to only having the UP. We negotiated an arrangement where the BNSF received roughly 4,000 miles of trackage rights or line sales over our lines so it could provide competition previously provided by the SP. BNSF is, of course, a much stronger and more effective competitor than was the financially weak SP.

Second, with the merger we introduced direct-line competition along the I–5 corridor on the West Coast that previously did not exist. Prior to our merger, no railroad had direct-line service along the West Coast. As part of our merger, both the UP and the BNSF now have this service as a result of arms-length negotiations. In fact, some of the new product offerings I discussed earlier in my testimony would not be possible without this direct-line capability.

Third, new competition is introduced on a regular basis with the construction of new transload facilities and new build-ins and build-outs to add service by a second railroad. This kind of market-based competition is worth taking a few moments to explain. A transload facility, as I've discussed before, is a facility where trucks and rail interchange traffic. A build-in or build-out is the capability of a railroad or customer to build a line to a competing railroad. A current example of how this works is the plan of BNSF and Dow (formerly Union Carbide) to build a section of rail out to the BNSF from Dow's plant in North Sea Drift, Texas. This will give Dow the ability to ship via UP and BNSF. The government didn't dictate the decision. BNSF and Dow negotiated it, and neither would have made the decision without a financial incentive.

Of course competition from other modes of transportation remains fierce. For example, in the area served by the Houston Port Terminal Railroad, one of the largest chemical complexes in the country, we estimate that rail carries only approximately 30% of the traffic. The rest goes by pipeline, barge or truck.

The important thing to note about all this competition is that it is the product of the free marketplace at work. Another example is the Powder River Basin coalfields, where we spent over $500 million building into the region and a third railroad is now attempting to do the same. This is not the result of artificial, governmentally regulated competition.

What challenges lie ahead for the rail industry?

One is the cost of fuel. As you can see from Attachment 14, the cost of fuel has sky rocketed over the past year. Union Pacific uses 1.3 billion gallons of fuel a year. We manage our fuel prices as best we can, but with this kind of consumption, rising fuel prices takes a big bite out of our revenue. Last year we spent roughly $450 million more on fuel than we did in the previous year.

Another challenge is to earn our cost of capital. This is basically our need to get an adequate rate of return on what we invest in our system. As I mentioned earlier, we are the most capital-intensive industry in the country. We have to plow a lot of money back into our system. However, we do not get back in revenue what we invest. To illustrate, it is like buying things on your credit card at a 15% interest rate and loaning them out at 8%. Long term, we cannot continue to operate like this, but as you can see from Attachment 15, we are closing the gap.

Finally, our biggest challenge is regulation—it is the one thing that could take all the progress and gains we have made over the past 20 years and make them for naught.

As you can see from Attachment 16, prior to the Staggers Act, our industry was in shambles. I know because I saw it firsthand, and it is a painful memory. Over 20% of railroad mileage was in bankruptcy. We got a 2% rate of return on our in-

vestment. Nearly 50,000 miles of track were under slow orders. We had $16–20 billion in deferred maintenance. Our market share was down to 35%. We had rising rates and declining service. In addition safety was a serious issue.

Congress recognized the problem and passed the Staggers Act, partially deregulating the rail industry. You can see the results in Attachment 17. From 1965 to 1980, productivity, volume, revenue and rates, on a ton-mile basis, were all flat. The Staggers Act passed and, as the attachment shows, our industry has regained health and vibrancy. Productivity and volume are up. Rates and revenue per ton-mile are down. The gap between productivity and volume, and revenue and price shows that while the railroads benefited from the Staggers Act, our customers gained even more as we shared most of these productivity gains with them. The productivity and efficiencies we gained through the Staggers Act allowed us to lower rates by over 50% and at the same time generate the revenue we need to re-invest in the system.

Unfortunately, there is a select group of powerful shippers who now want to re-regulate railroads by forcing us to give our competitors access to our facilities and eliminating our ability to differentially price. They are trying to do something to us that they would fight to the death to prevent if it were proposed for their businesses.

To make matters worse, along with giving access to our competitors, they are advocating price controls limiting what we should be paid for this access. They want the government to set prices far below what a recent FRA-chartered study found would be fair and proper (see attached study). They call this new competition, but it is not. It is new regulation.

This type of forced, price-controlled, government-imposed access would trigger a 40% loss in our operating income that would virtually wipe out our profits. This is depicted in Attachments 18 and 19. In 2000 as an industry, we grossed $34.1 billion in revenue. Of this, $29 billion went toward operating expenses, resulting in $5.1 billion in operating income. The proposals advanced by this select group of shippers would, on a conservative basis, eliminate $2.4 billion of this income. Obviously, this would make it virtually impossible to make the investments necessary for our future. This type of needless, government-imposed revenue transfer from our industry to others would devastate the rail industry with the customers we serve, and this nation's economy being the ultimate loser.

Let me put this in different terms. Try to look at the rail industry in this country as a network, similar to the highway, air, and waterway networks. Over the past six years, Congress has paid a great deal of attention to capacity constraints in these other networks, and it has targeted a great deal of funding to them to ensure we, as a country, have the infrastructure necessary to support our economy. The rail network is really no different. We need a strong, vital rail network if our country is to remain competitive. The big difference in all of these networks is that the rail network is privately funded, and today, by any standard, our rail network is the envy of the world. Rates are low, service and safety are constantly improving, and we are able to reinvest in the system. All of this came about due to the reforms of the Staggers Act and the ability to differentially price our services. In short, the system works. If Congress takes this ability away, private investors will stop investing in rail infrastructure, and the nation will lose those investment dollars. As a result, we will have a deteriorating rail network, or Congress will have to find the funding to support our rail network.

In the past this Committee has heard from various shippers and shipper groups who want you to change the system. They, in essence, want the government to mandate two railroads for every shipper. These select groups want you, the government, to give them relief for something they often don't choose when they have the opportunity—access to more than one railroad. You are now probably asking yourself how can I say that? We have been having discussions with various state economic development officials and private organizations involved in industrial plant site selection activities. We have asked them about what companies think is important when they site new facilities. As you can see from Attachment 20, rail service is number 24 out of a list of 25 items.

Given how vocal these groups have been in Congress, we were not sure exactly how to interpret this data. We decided to do a survey of new plants that have located on the Union Pacific. As you can see from Attachment 21, we found this data to be absolutely correct. Between 1998 and 2000, of the 554 new plants that have located on the UP, only 89 chose to locate where there was access to more than one railroad; 465 chose to locate at a site served by only one railroad. We found this to be very interesting. With all things being equal, when picking a new site, the marketplace choice was to be served by only one carrier. Now, many of these same

companies want the government to give them what they chose not to do in a free-market decision.

For all these reasons, we strongly urge you to reject their attempts at reregulation and allow the railroads to continue on our path of progress since the Staggers Act.

Before closing, I would be remiss if I didn't take a moment to discuss commuter rail, which is becoming a growing challenge.

Urban sprawl and congestion are problems facing city planners, and many commuter agencies are looking at passenger rail to solve their problems. We can empathize with these planners as we operate in many large cities and have employees there who must get around. Unfortunately, many of these agencies look at our tracks as a way of solving their commuter problems without considering that our rights-of-way are private, not public easements. We have limited capacity, and we need that capacity to move freight. Moreover, if rail freight capacity is captured for commuter trains, more freight will be forced into trucks, and road congestion will get worse, not better.

That is not to say we oppose commuter rail. We have partnered with many commuter agencies where the commuter agency can replace the capacity it takes from our business. These agreements have been negotiated on an arms-length, case-by-case basis.

Today the American Public Transit Association (APTA) is calling for legislation that would force commuter rail on our tracks regardless of our position or the impact it would have on our ability to move freight. Not only do we believe this to be fundamentally unfair, but we also believe it to be a taking of private property. The government should not force railroads to carry commuter trains unless it funds all the capacity necessary to carry those trains.

Preserving rail freight capacity is essential for the public interest. In evaluating their proposal, we cannot lose sight of a fundamental reality. We have limited capacity, all of which we need to handle current freight levels. If the capacity is turned over to commuter rail—without adding new capacity—our current ability to move freight is reduced. That means congestion. As our Houston crisis of 1997–1998 demonstrated, none of us can afford to move in that direction.

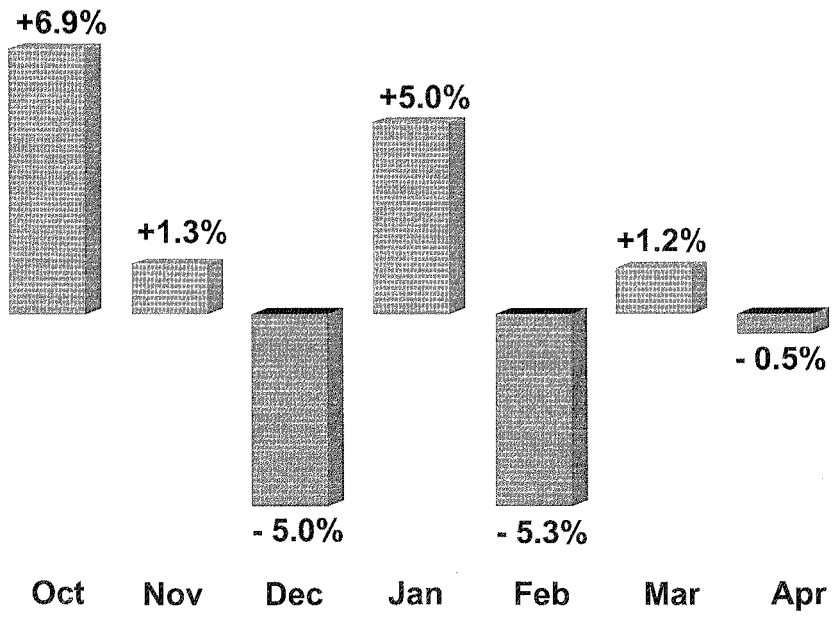
This Committee has heard from some shipper groups that want to reregulate our industry and curtail our ability to earn the revenue necessary to invest in our system. Congress will also be hearing from commuter authorities that want to use our tracks without fully compensating us for their use or without fully replacing the capacity that commuter rail consumes. Both proposals have the same objective, and that is to have the government take revenue from the rail industry and redistribute it to others, thereby reducing the ability of our industry to move the freight that makes up the building blocks of our economy. At the same time, you are hearing from others who talk about how important it is to provide the infrastructure investment necessary to remain a competitive nation and to sustain economic growth. The dichotomy of these two schools of thought is striking and very frightening to us because we know we cannot have it both ways. We tried it once, and it did not work.

Again, I want to thank the Subcommittee for giving me the opportunity to testify today. I would be pleased to answer any questions.

1

Slowing Economy

Carloadings

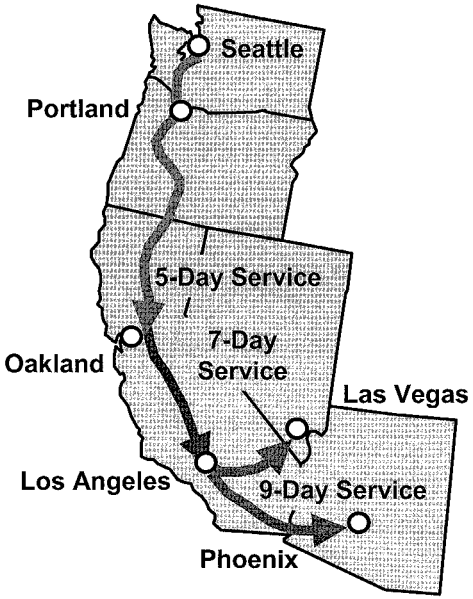


2

I-5 Initiatives

5-7-9

- Truck Market Focus
- New Sales Approach

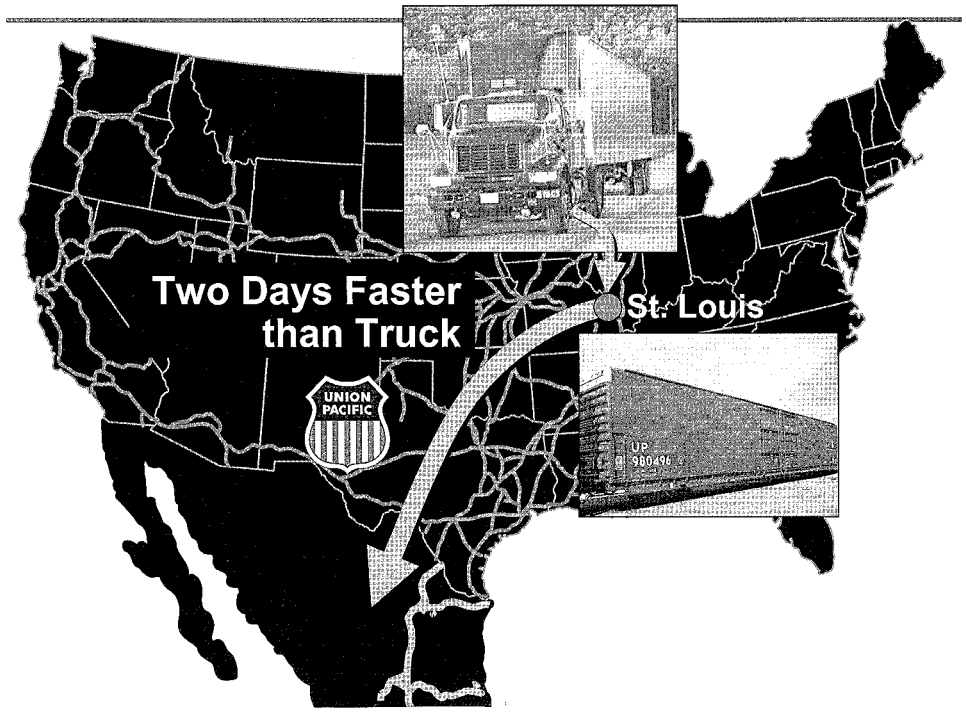


3

OutReach Program

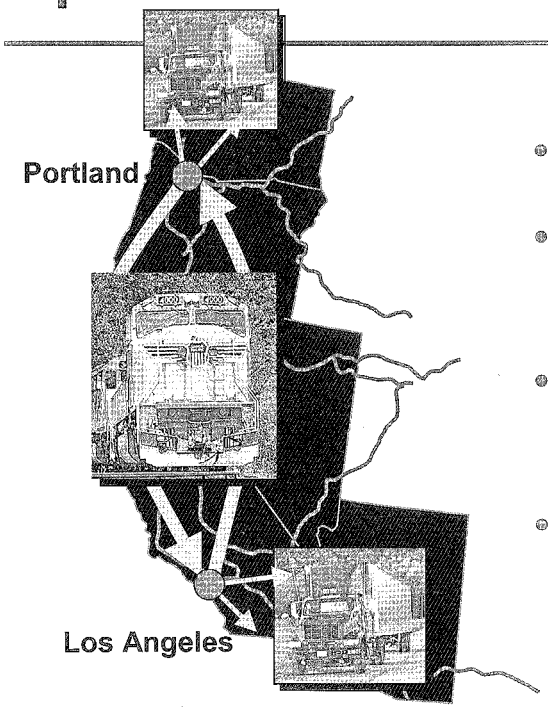
4

Auto Parts Transload



5

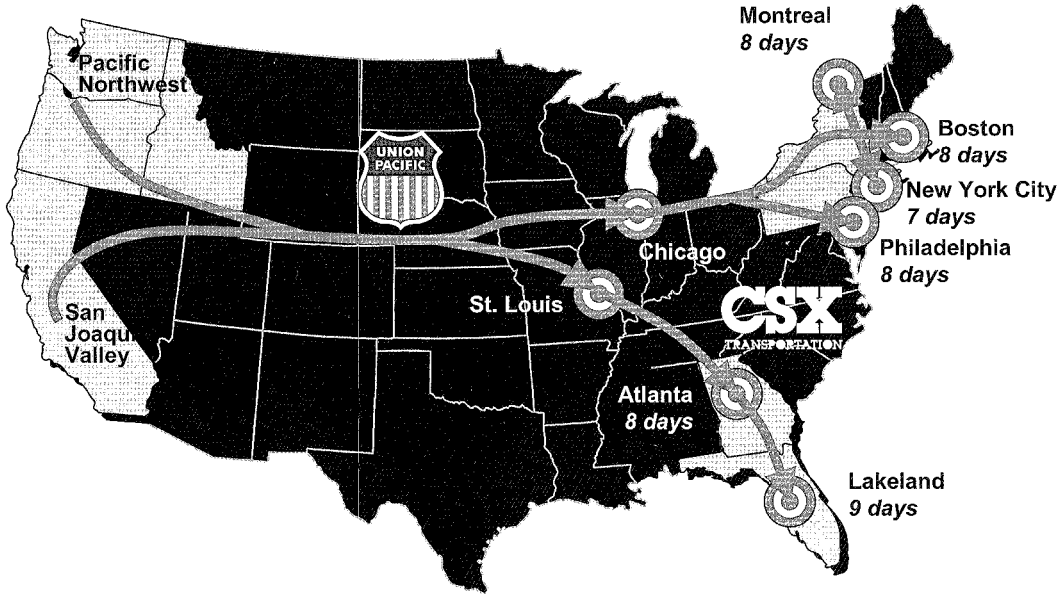
SpeedLink



- 45 Hour Service
- Boxcar "Shuttle Train"
- Door-to-Door Service
- Dedicated Equipment

6

Express Lane



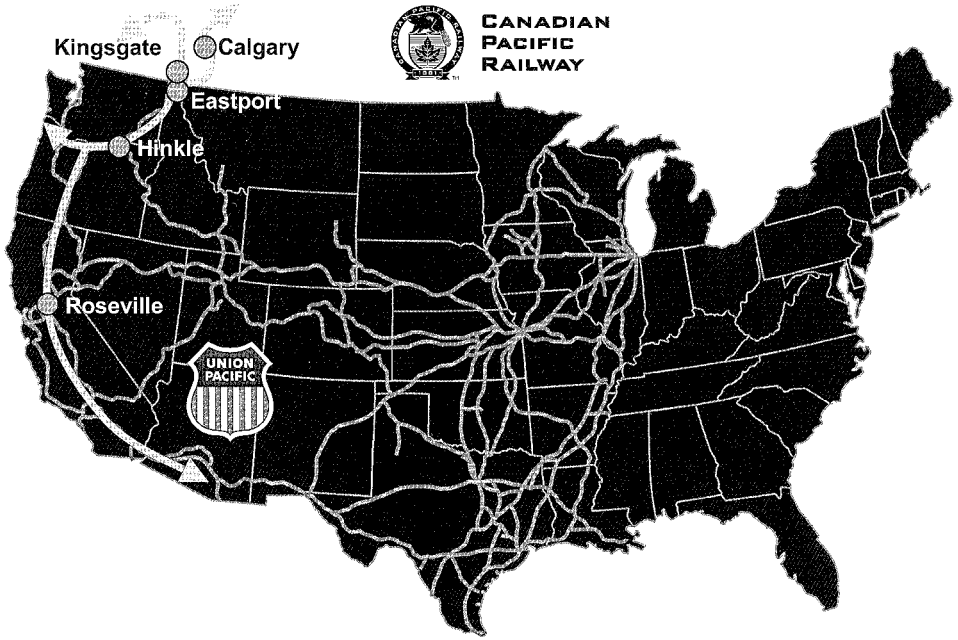
7

UPS Coast-to-Coast

8

International Growth

Pacific CanAm



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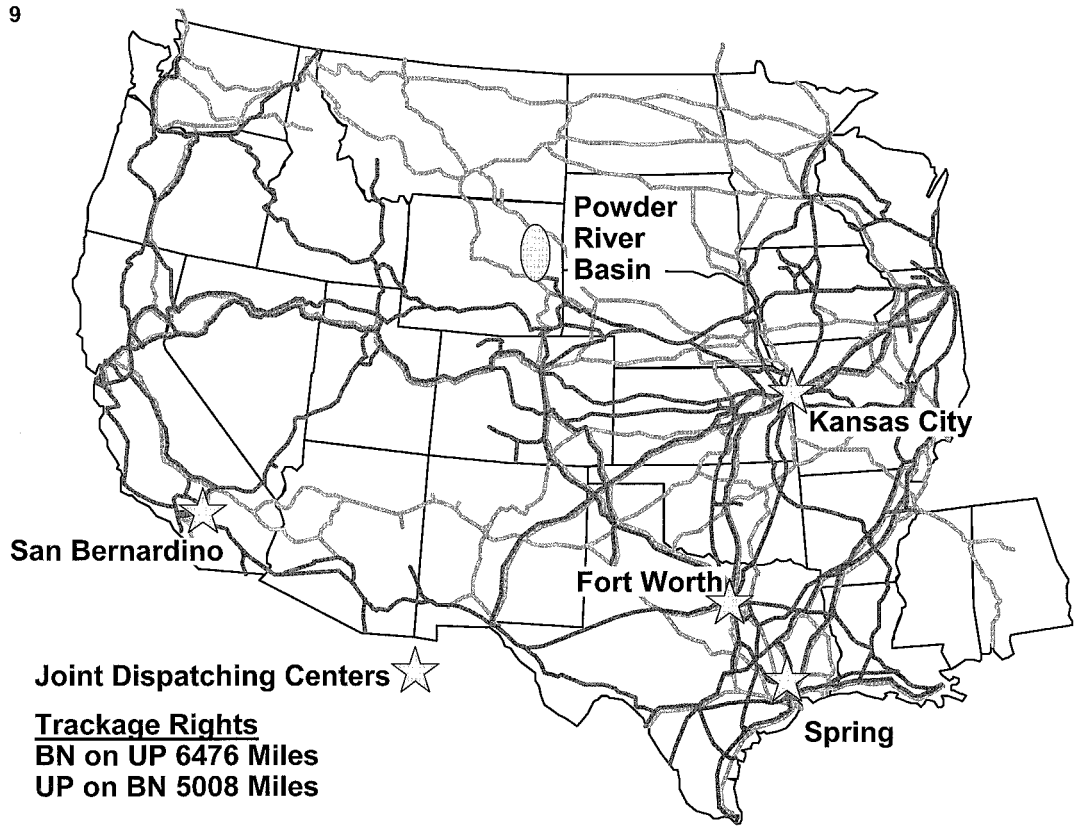


Joint Dispatching Centers

Trackage Rights
BN on UP 6476 Miles
UP on BN 5008 Miles

10

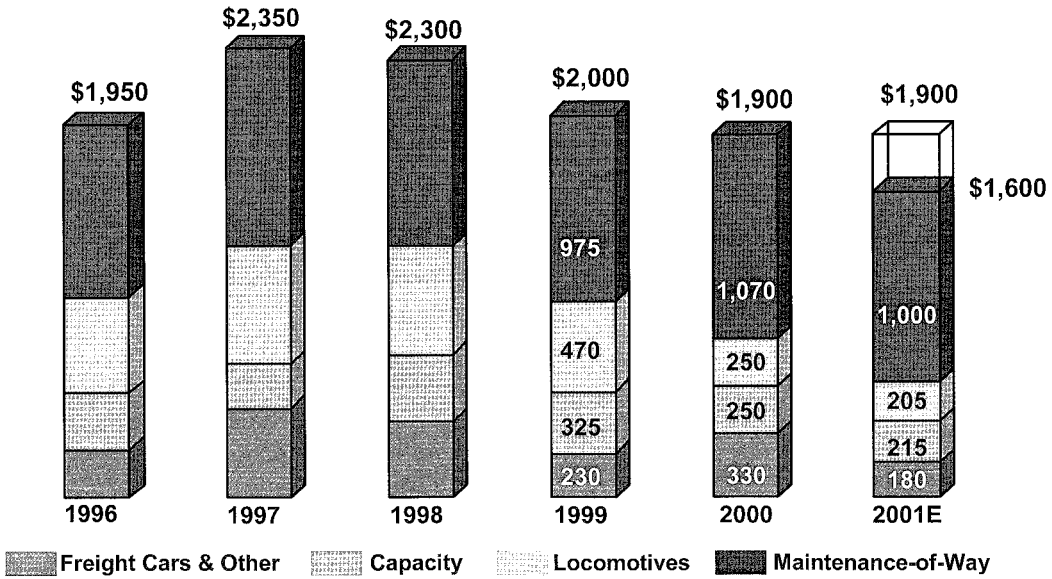
Capital Expenditures As a % of Revenue

All Mfg	3.9%
Food Mfg	2.6%
Wood Product Mfg	3.0%
Paper Mfg	5.5%
Chemicals Mfg	5.1%
Machinery Mfg	3.6%
Electronics Mfg	4.8%
Transp. Equip. Mfg	3.3%
Railroads	21.7%

11

Capital Spending Trend
(Includes Outsourcing)

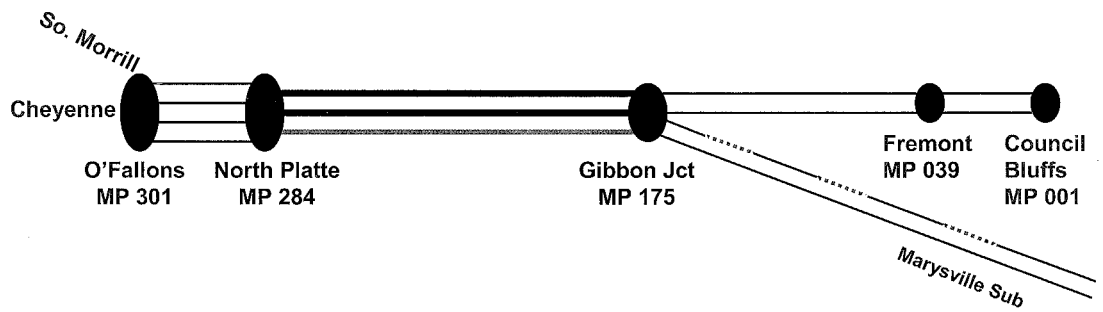
($ Millions)



12

North Platte to Gibbon Jct

Triple Track Project

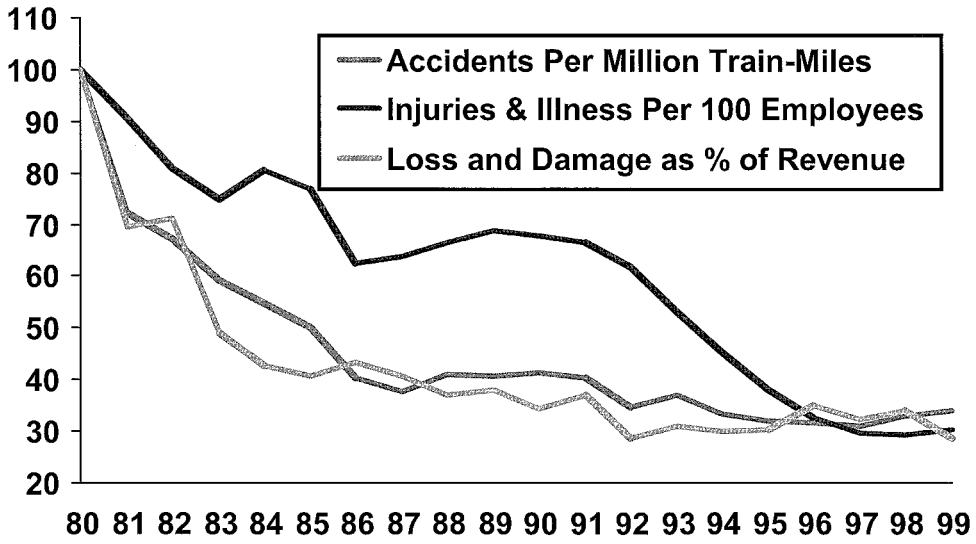


	Before	Present	Change
Trains Per Day	107	139	30 %
Velocity, mph	23.8	36.4	53 %
Recrew Rate	19.2%	3.9%	- 80 %
Fluid Capacity (Trains Per Day)	95	180	+ 85

13

Railroad Safety Trends

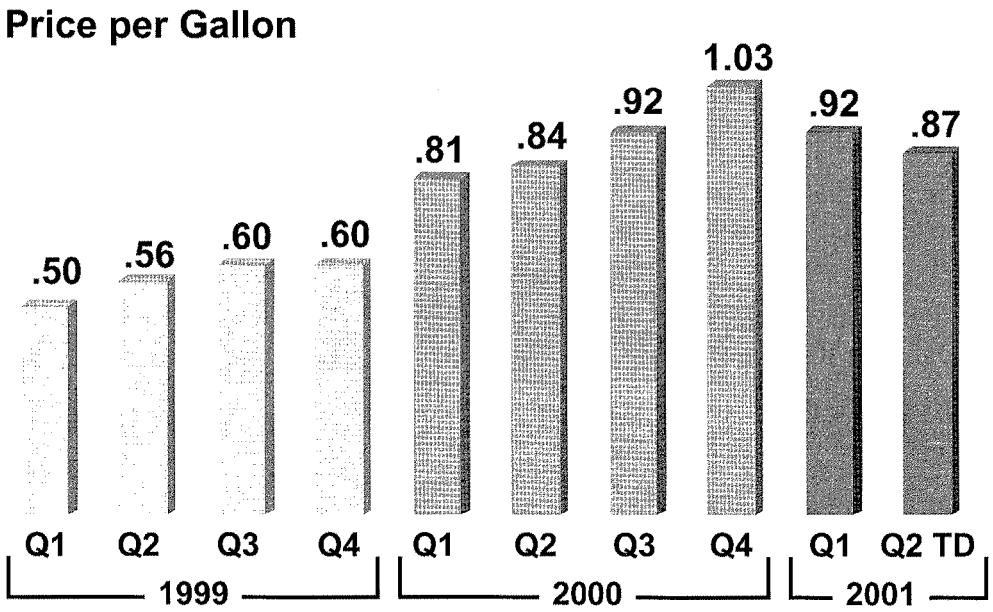
(Index 1980 = 100)



Source: Federal Railroad Administration

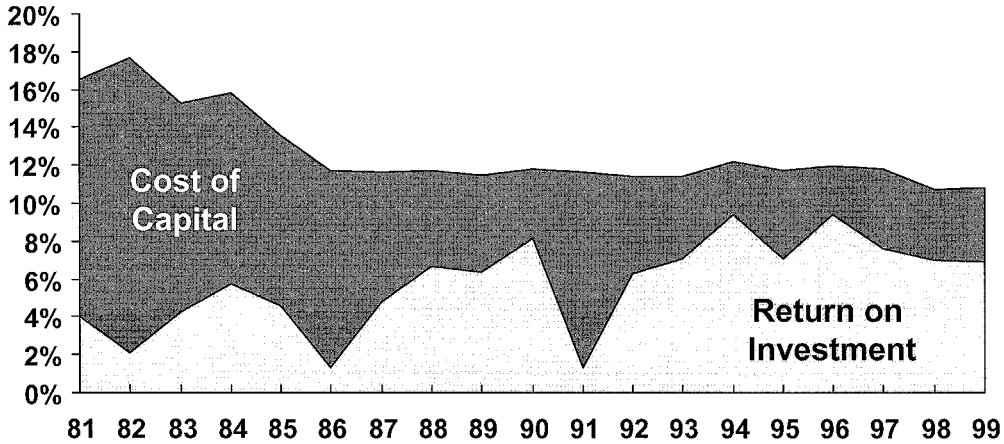
14

UP Fuel Price



15

Railroad Cost of Capital vs. Return on Investment



Source: Surface Transportation Board

16

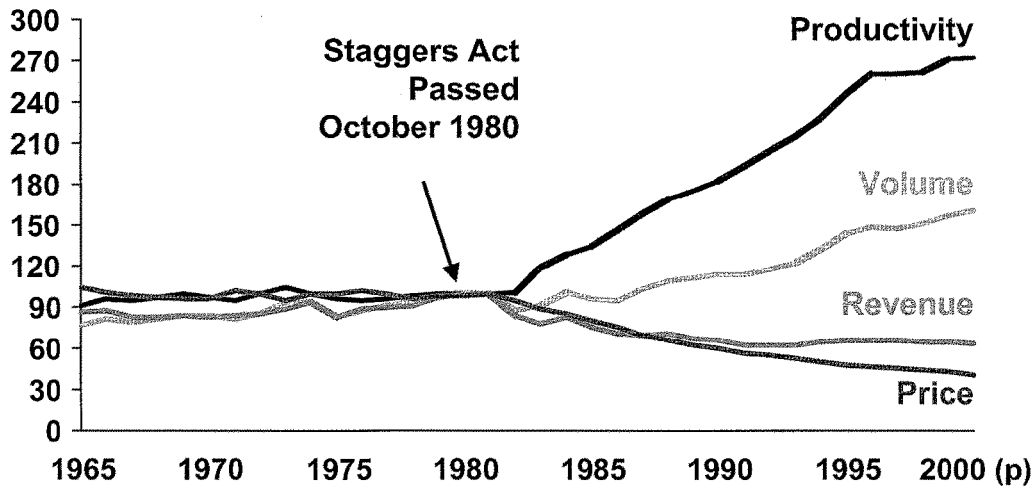
U.S. Rail Industry Pre-Staggers

- Over 20% of Mileage in Bankruptcy
- 2% Return on Investment
- Nearly 50,000 Miles Under Slow Orders
- $16-$20 Billion in Deferred Maintenance
- Market Share Down to 35%
- Rising Rates, Declining Service

17

U.S. Railroad Performance: 1965-2000

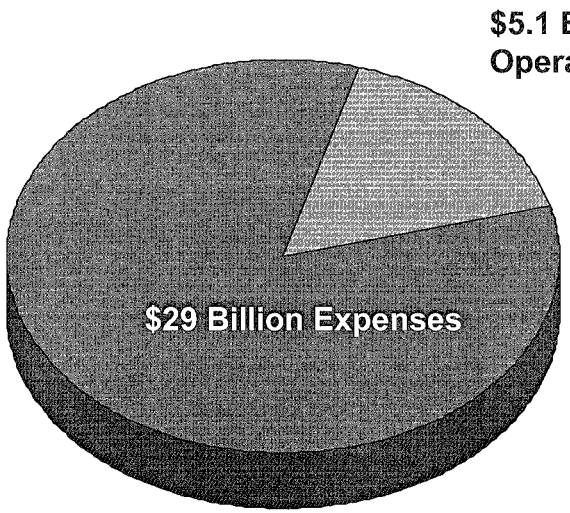
(Index 1981 = 100)



Source: AAR

18

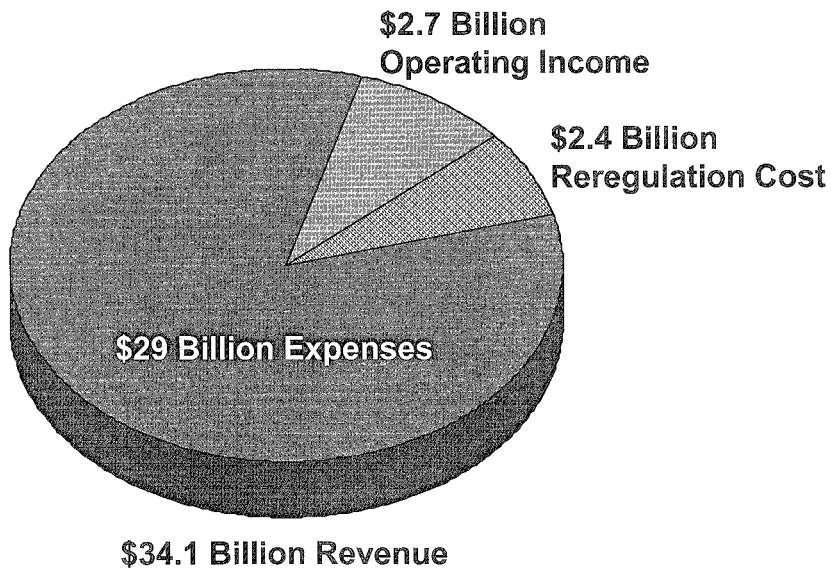
2000 Revenue vs. Expenses



Source: AAR 2000 Data

19

Cost of Reregulation



Source: AAR 2000 Data

Site Selection Factors

		2000	1999			2000	1999
1	Highway accessibility	96.9%	94.6%	14	Availability of land	75.5%	85.0%
2	Labor costs	91.6	93.8	15	Right-to-work state	72.9	67.7
3	Availability - skilled labor	87.7	95.8	16	Availability - unskilled labor	65.5	77.3
4	Corporate tax rate	84.7	--	17	Nearness of suppliers	63.8	59.3
5	State & local incentives	83.6	90.3	18	Availability - long-term financing	58.4	64.2
6	Occupancy of constr costs	83.0	87.5	19	Availability - broadband telecom	58.1	--
7	Tax exemption	81.6	85.9	20	Worker technical programs	57.2	63.7
8	Environmental regulations	80.9	79.0	21	Raw materials available	56.1	58.7
9	Low union profile	79.7	79.5	22	Access to major airport	53.2	57.2
10	Energy availability & costs	77.7	85.2	23	Near technical university	31.9	31.1
11	Availability - telecom srvcs	77.1	85.1	24	Railroad service	29.8	31.0
12	Nearness of major markets	76.8	75.6	25	Waterway/ocean port access	21.0	13.2
13	Cost of land	75.8	80.9				

Source: Area Development Magazine

21

Number of New Industries by Competitive Status

Total 1998-2000

	Multiple RR	One RR	Total
Ag Products	12	71	83
Auto	0	1	1
Chemicals	26	104	130
Energy	0	3	3
Industrial Products	51	286	337
Intermodal	0	1	1
Total	89	465	554

Senator SMITH. Thank you very much, Mr. Davidson, for your testimony. It is very insightful.

Mr. Rose, nice to see you again. Welcome to Washington, and we invite your testimony.

STATEMENT OF MATTHEW K. ROSE, PRESIDENT AND CEO, BURLINGTON NORTHERN SANTA FE CORPORATION

Mr. ROSE. Good morning, Mr. Chairman. My name is Matt Rose and I am President and CEO of Burlington Northern. I have not been in the industry quite as long as Mr. Davidson.

I have been in the rail and trucking industry for 20 years. I do welcome the opportunity to speak at today's hearing. I plan to cover three different subjects:

First, progress made by the railroads since enactment in 1980 of the Staggers Act; second, some of the financial challenges that currently face our industry today; and third, some public policy changes needed to put railroads on a level playing field with other modes to ensure we will be in good financial shape to handle our nation's growing demand for rail freight service.

As I make my comments, I will refer to four charts that hopefully you now have in front of you. I am going to start first with the first chart, labeled "Performance of the Major Railroads." If a picture is worth a thousand words, this graph is worth a million. It captures 35 years of railroad history at a glance. It shows the incredible progress we have made since the Staggers Act.

Prior to deregulation, our industry was stagnant and nearly bankrupt. After deregulation, our industry caught fire, and since then rail productivity has literally tripled. Rail volumes have increased 60 percent. The prices we charge have declined an average of 62 percent. Finally, since our prices have declined more rapidly than our volume increased, total rail industry revenues have literally declined. You can imagine there are very few industries for which, if you look at on a total revenue basis over a 30-year period, revenues have literally declined.

Looking at prices and revenue is another way, if you look at the next chart, titled "Rail Revenue Per Thousand RTM's." It shows that decline in real revenues. It has been steady and dramatic. Two areas where I have seen this firsthand at BNSF are coal and agricultural commodities. Prices have dropped nearly a third since 1994 alone. These price declines have been due to competition from other modes and other railroads, our customers' ability to use alternative suppliers and raw materials, and our eagerness to get more business.

Now, you may hear later today that these numbers are not accurate, even though they have been supported by the Surface Transportation Board's studies. Maybe the rate of decline could be debated, but the fact is, even after we factor in shipper ownership of cars and shipper costs to construct tracks so railroads can access their facilities, average rail rates have declined and our industry's revenue is inadequate to support the capital investments we need.

Since Staggers, the rail industry has gradually shored up its finances. That is because we have improved productivity faster than we have reduced prices. Unfortunately, it has been 21 years since deregulation and we are still not over the hump on profitability, as

you can see from the third slide, titled "Railroad Cost of Capital versus Return on Investment."

The problem is rail industry returns have been persistently below our cost of capital, as Mr. Davidson also showed you. Rail investors say that makes railroading a capital extraction business, not a capital investment business. That is obviously dangerous, because capital is literally the lifeblood of railroading. We are the nation's most capital-intensive business so far, and you can see that on my fourth chart, titled "Railroading is America's Most Capital-Intensive industry."

The reason we are so capital-intensive is our rights-of-way. That is where about 75 percent of every dollar of capital invested by America's rail industry is spent every year, and that is an investment category our competitors, the trucking companies and the barges, do not have.

At BNSF we try to get our returns above our cost of capital by improving service to attract new business. We have invested $11 billion from 1996 to the year 2000. That has enabled us to increase our on-time service to 91 percent for the last 2 years. We also had a 96-day hot streak where we delivered 103,502 trailers for United Parcel Service on time, perfect service.

Unfortunately, our returns on invested capital have declined for 3 consecutive years after those massive investments. The declining returns have forced us to reduce capital from $2.5 billion in 1998 to $1.5 billion this year. We are still doing some selective expansion for future growth. If capital continues to be limited because of the poor returns, I anticipate we will have a smaller rail network in just a few years.

To keep that from happening, I have several recommendations. First, we need to repeal the 4.3-cent-per-gallon deficit reduction fuel tax on railroads. This tax is discriminatory. It costs BNSF $50 million last year.

Second, we need to reform railroad retirement. Last year Congress considered a bill that would both reduce our taxes and increase benefits for railroad retirees. This year, Congress again is considering such a bill. Our industry appreciated the overwhelming support we got from both houses of Congress last year and of course we will be hoping that support will be strong enough to pass the bill this year.

Another area we need help from is in infrastructure investments. As I pointed out, our history is proving that railroading does not have enough economic advantage to support privately owned rights-of-way while most of our competitors benefit from government-provided infrastructure. Recently, however, we have seen a few examples of public-private financing partnerships that benefit both communities and railroads, such as the Alameda and the FAST corridors. Many rail infrastructure projects have associated public benefits, like better public safety, reduced traffic congestion, and improved air quality. More public funding needs to be available for such projects and the level of support should be in line with the public benefits of each project.

Last, I urge you not to turn back the clock on the Staggers Act. You have heard all the pleas for open access or for more government-mandated rail-to-rail competition or to further restrict rail-

road pricing freedoms. If these occur, it could start a sequence of further cutbacks in capital investments and a shrinkage of America's rail network. Ultimately, the future of the rail industry, with privately owned and maintained infrastructure, would be jeopardized.

I am not asking the government to take over our rights-of-way. But I am asking the government to consider projects that will have clear public benefits.

Mr. Chairman, none of the challenges that the railroads face today are insurmountable if we get a level playing field with our competitors. I am confident that this Committee understands the potential public benefits to our nation from a healthy rail system, something I think that this nation takes for granted. The challenge is to put correct public policies in place to achieve these benefits.

I look forward to assisting you in any way I can to help answer questions for your other Members of the Subcommittee.

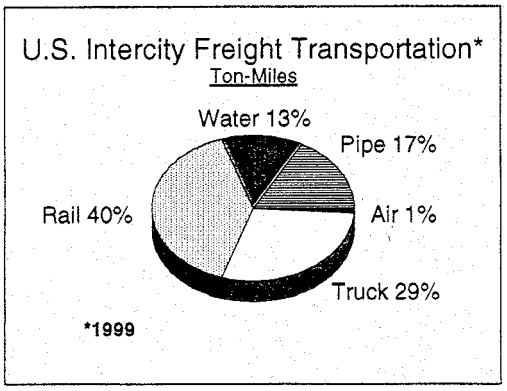
[The prepared statement of Mr. Rose follows:]

PREPARED STATEMENT OF MATTHEW K. ROSE, PRESIDENT AND CEO, BURLINGTON NORTHERN SANTA FE CORPORATION

My name is Matthew K. Rose. I am President and Chief Executive Officer of Burlington Northern Santa Fe Corporation and The Burlington Northern and Santa Fe Railway Company ("BNSF"). BNSF is one of America's largest railroads, with about 39,000 employees and 33,500 miles of routes serving 28 states. BNSF handled over 8 million freight shipments last year and had revenues of $9.2 billion. I have 20 years of experience in the freight transportation industry, including positions in operations and marketing with major railroads and trucking companies in both the eastern and western United States.

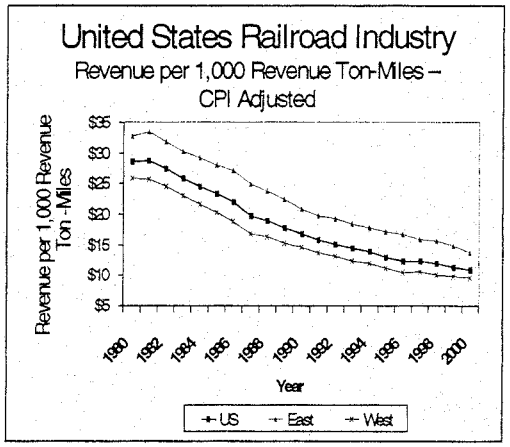
As requested by this Subcommittee, the purpose of this testimony is to provide information about the financial condition of the railroad industry and changes since enactment of the Staggers Act in 1980. My testimony will explain why railroads are so crucial to our nation, and why railroads require massive amounts of capital. It will also demonstrate that although railroads have made great progress in the last 20 years, returns are still below the industry's cost of capital, forcing significant constraints on future capital investments. This puts at risk our ability to meet future demand for rail transportation. I will conclude by addressing public policies that have the affect of "tilting" the competitive playing field against the railroads—and in favor of other modes—thereby preventing our nation from achieving the maximum benefits from its freight rail network.

FREIGHT RAILROADS ARE CRITICALLY IMPORTANT TO OUR NATION'S FUTURE

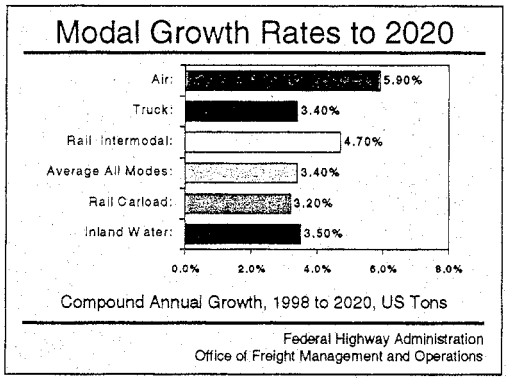


Railroads are the "workhorses" of America's transportation industry. Year after year, railroads handle more freight volume, by far, than any other mode. Railroads

handle 40% of our nation's freight measured in ton-miles, including 70% of the motor vehicles purchased in our nation, 67% of the coal used for generating electricity, and 40% of our grain.



Over the last 20 years, rail ton-miles have increased 60%. During that time, however, competitive pressures forced rail prices steadily downward. The result was that rail industry revenues last year, adjusted for inflation, were 42% lower than 1980. Another important trend has been the shrinking geographic scope of our nation's rail freight network. Route-miles declined from 175,000 in 1980 to 132,000 in 2000 as competition from other modes intensified.[1]



Over the next 20 years, our nation will be facing new freight transportation challenges. A recent study by the Federal Highway Administration Office of Freight Management and Operations forecasts that demand for freight transportation will double over the next 20 years. Rail carload and truck volumes are projected to grow by just over 3% per year, while rail intermodal is projected to have the highest growth rate among surface modes, at 4.7% per year.

Such projections beg key questions: Where is the capacity going to come from, and how are we going to pay for it? Only a few new highway, waterway and rail routes may be built. Clearly, our challenge is to develop public policies and business strategies to squeeze every bit of productivity from the infrastructure now in place, so that America's transportation system facilitates—rather than constrains—economic growth. At the same time, the policies and strategies we adopt must protect our citizens and our environment, while providing competitive shipping rates and high service reliability.

[1] Includes Class I, regional and short lines.

Any way you look at it, railways will play a major role in addressing this challenge, because:

• *Railroads are safer than alternative modes:* Railroads have the lowest employee injury rate among all the modes. Our safety improvements of the past 20 years include a 65% decline in train accident rates and a 71% decline in employee injury rates.[2]

• *Railroads are environmentally friendly.* Freight trains are nearly five times more fuel efficient than trucks, and trucks emit anywhere from three to twelve times more pollutants per ton-mile, including nitrogen oxides and particulates.[3]

• *Declining rail shipping rates are benefiting consumers.* A study released last December by the Surface Transportation Board ("Rail Rates Continue Multi-Year Decline") found that the ultimate beneficiaries of increases in rail productivity—and decreases in rail prices—have been consumers. A key finding of the study was that rail rates have fallen 45.3%, adjusted for inflation, since 1984. According to the STB, shippers would have paid an additional $31.7 billion for rail service in 1999 if revenue per ton-mile had remained equal to the 1984 level. Another key finding was that ". . . all types of rail customers, and not just those with competitive transportation alternatives, have received some portions of the rate reductions."

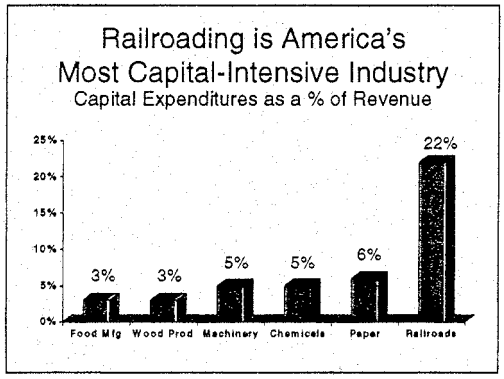
This industry study reflects what has happened at BNSF as well. There are numerous examples that confirm this decline. Two that stand out are coal and agricultural commodities. BNSF's average revenue per ton mile for coal shipped from the Powder River Basin in Wyoming declined 32%, adjusted for inflation, from 1994 through the first quarter of 2001, due to aggressive rail-to-rail and barge competition, our desire to keep generating plants from choosing alternative fuels, and competition between utilities.

In the agricultural commodities area, BNSF's average revenue per ton-mile declined by 32%, adjusted for inflation, over the same period, due to competition with other railroads and other modes, and because we have passed efficiency gains through to customers in the form of lower rates in order to increase our business.

• *Railroad service is improving*: Last year, for the second consecutive year, BNSF provided its customers with 91% on-time service, up from 82% in 1998 and 79% in 1997. Excellent on-time performance for our largest customer, United Parcel Service, was one of our proudest achievements: We handled 388,190 UPS intermodal trailerloads during 2000, and delivered 99.6% of them on time. BNSF is continually sharpening its customer focus, including development of a number of e-business initiatives to make BNSF easier to do business with.

Even with these improvements, however, we understand that BNSF service is not as good as it needs to be across all commodities and across our entire network. But, it is getting better, year after year. The biggest key to further service improvements is undertaking the capital investments to increase the capacity of our infrastructure.

RAILROADS REQUIRE MASSIVE AMOUNTS OF CAPITAL

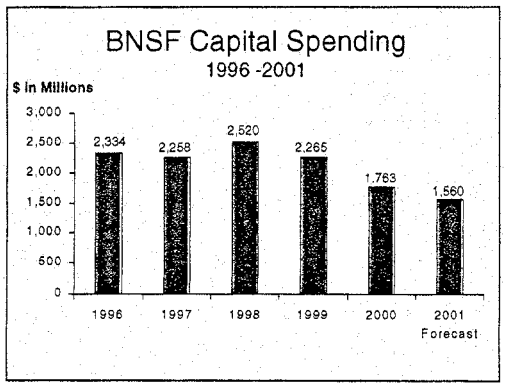


[2] The fatality rate for railroads is .86 per billion ton-miles, compared with 3.81 per billion ton-miles for tractor-trailer trucks. Based on analysis of data from the Bureau of transportation Statistics and the National Highway traffic Safety Administration.

[3] Railroads moved 383 revenue ton-miles per gallon of diesel fuel in in 1990, compared with 80 revenue ton-miles per gallon for tractor-trailer trucks. Based on analysis of data from the Bureau of Transportation.

America's railroads, like all elements of our national transportation infrastructure, require massive investments for maintenance and capacity expansion. In fact, calling railroading capital intensive is an understatement. The U.S. Census Bureau calculated that railroad capital expenditures in 1999 consumed a whopping 21.7% of revenues, compared with an average of just 3.9% for all manufacturers. Railroads require invested capital of about $2.50 to generate a dollar of revenue, compared with just 50 cents of invested capital per revenue dollar for truckers.

At BNSF, wrestling with the capital investment dilemma is one of our biggest challenges. In the years immediately following the merger that created our company in 1995, we adopted an aggressive "build it and they will come" strategy. In our first five full years, we invested over $11 billion—an average of $2.2 billion per year—to expand capacity and improve service. We acquired over 1,600 new locomotives, 6,000 covered hopper cars, added 1.6 million units of additional intermodal capacity and 496 miles of double and triple track, betting that we would attract additional business and increase our profitability.

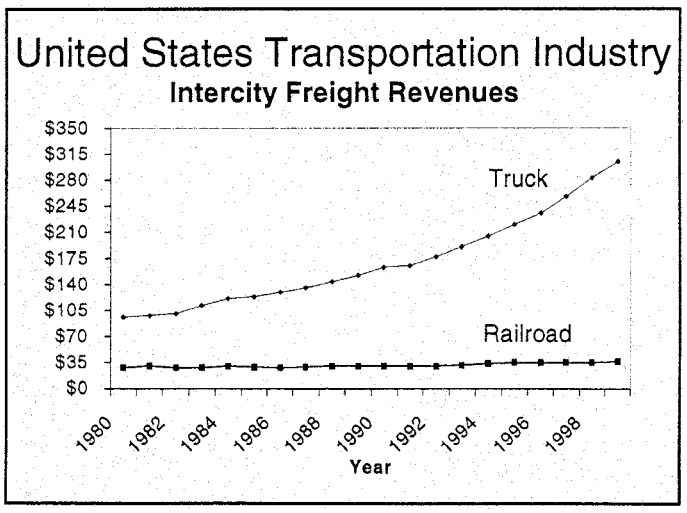


This was a credible strategy, but it has not played-out rapidly enough. As a result, we have been essentially forced by our investors to significantly reduce our investment levels over the past three years. BNSF capital investments will drop to about $1.5 billion this year. While these are substantial sums, and they are adequate to keep our railroad in quality running order, expenditures at this level will not get our company—or our nation—additional capacity for handling the projected increased demand for rail freight transportation in the years ahead.

Declining capital investment levels have become the norm at the three other major Class I railroads in the last two years. Industry investment levels peaked at $7.4 billion in 1998, and they are expected to decline to about $5 billion this year. While it is natural for railroad investment levels to fluctuate from year to year, this trend bears watching closely.

The current excellent condition of most main line tracks, signal systems and locomotives on the Class I rail network gives us a bit of a cushion, but the weak earnings recently reported by the railroads, combined with the soft economic outlook for the quarters ahead, make it unlikely that investment levels will increase in the short term, and the current investment levels are close to the maintenance level.

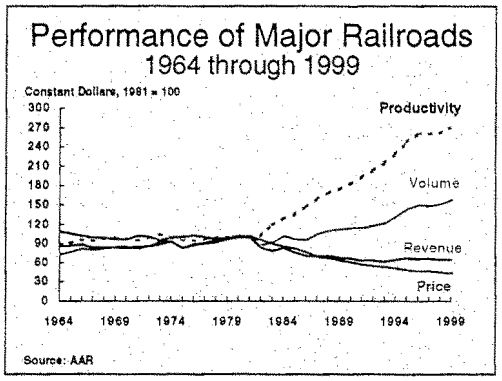
It is important to keep in mind that the difference between capital investment intensity of railroad companies, compared with our competitors in other transportation modes, is not due to the high cost of railroad infrastructure. It is simply because railroad companies pay to maintain their own infrastructure, while our competitors do not.



Railroads may be the workhorses of our transportation system, especially when it comes to transporting bulk commodities over long distances, but despite great strides in efficiency, railroads are losing ground rapidly to truckers in revenue market share and tons originated. Unfortunately, history is proving that rail technology typically does not have enough economic advantage to support privately owned rights-of-way in the face of government-provided infrastructure for most of our competitors.

DESPITE GREAT PROGRESS, RAILROADS ARE NOT PROFITABLE ENOUGH TO ATTRACT ADEQUATE CAPITAL TO FULFILL THEIR POTENTIAL FOR THE NATION

Most Americans probably would not put railroads near the top of their list of the most dynamic U.S. industries of the last 20 years, but they should. After two decades of stagnation in the 1960s and 1970s, when returns on invested capital in the rail industry averaged only about 2%, economic deregulation breathed new life into the railroads.



Our industry responded with a vengeance, increasing returns to an average of 6.6% since deregulation. Since 1980, railroad productivity (expressed as ton-miles divided by operating expenses) has increased 203% (inflation adjusted), rail shipping rates have declined on average 62% (inflation adjusted), and industry revenues have declined 42% (inflation adjusted).

The railroad success formula of the last 20 years was relatively simple:

- Reduce expenses through a myriad of efficiency improvements;
- Trim operations back to the most profitable routes and commodities;

• Merge to extend single-line hauls, reduce overhead and achieve even greater efficiencies;
• Abandon or spin-off superfluous lines;
• Focus on customers.

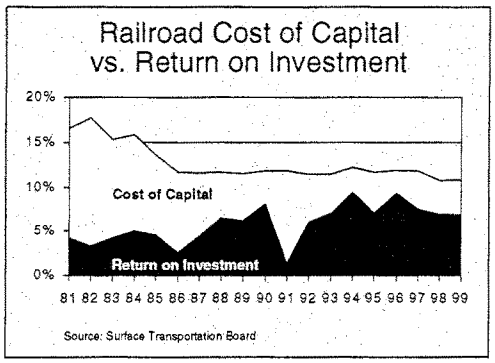
One result of these initiatives was a considerable change in the mix of traffic transported by the railroads. Shipments of individual carloads of consumer and industrial goods, especially shorter haul shipments, failed to keep pace with economic growth as these shippers shifted to trucks.[4] Numerous valiant marketing efforts to retain this business have been, at best, only modestly successful.

Today, we depend increasingly on bulk commodities and long-haul intermodal shipments in high density lanes. Intermodal is increasingly the "growth driver" for the industry. Western railroads have benefited relatively more than eastern carriers from these changes, because of their longer hauls and because the Clean Air Act resulted in surging demand for low-sulfur coal from Wyoming and Montana.

Most efficiencies achieved by the railroads have been passed-through to shippers in the form of lower prices, as STB studies have confirmed, due to competition and our need to increase volumes. Fortunately, because railroad expenses were reduced even more deeply than rates, railroads managed to keep some of the difference, which allowed the industry to gradually shore-up its finances.

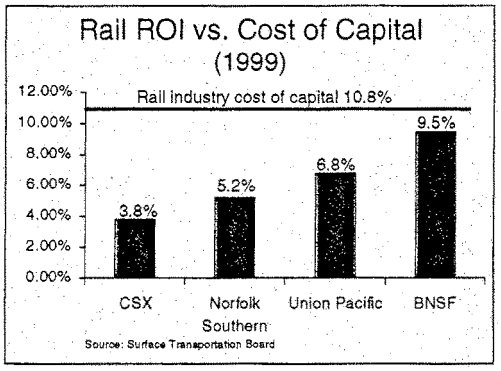
Railroads did this through "differential pricing," which is the way virtually all industries set prices: costs, competitive factors, and the purchaser's demand elasticity all get factored into the price equation. Some rail customers have argued to change this approach to pricing, but the changes they suggest would severely and immediately constrain our ability to make capital investments. Railroads should not be denied the same pricing mechanism as other service companies, especially since our industry is already subject to STB regulatory oversight concerning potential railroad market power abuse.

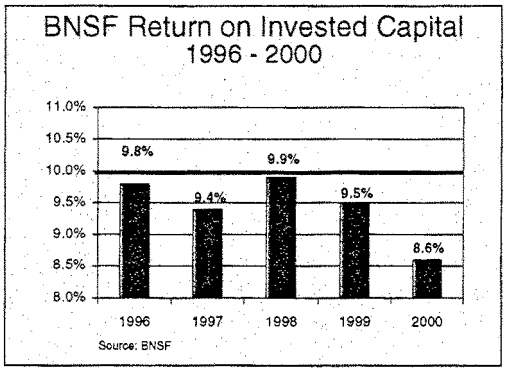
Unfortunately, the financial picture for railroads has not improved enough, and now we are seeing signs that it is slipping. Our industry's "Achilles heel" is its inability to boost returns on invested capital above the cost of capital. This has troubled railroads for years, and it may well have more affect on our industry's long-term future than any other financial measure. If railroads are unable to achieve returns exceeding their cost of capital, capital will flow out of the industry, railroads will constrict, and the economic, safety and environmental contributions of our industry to the nation will decline—at the very time they are most needed.



Progress has stalled since the mid-1990s, after making significant headway reducing the cost of capital "gap" during the 1980s. Although Western railroads seem to be faring better than Eastern roads in closing the gap between return on investment and cost of capital, BNSF's slippage in this measure over the last three years is troubling.

[4] Average length of haul for railroads increased from 615 miles in 1980 to 834 miles in 1999.

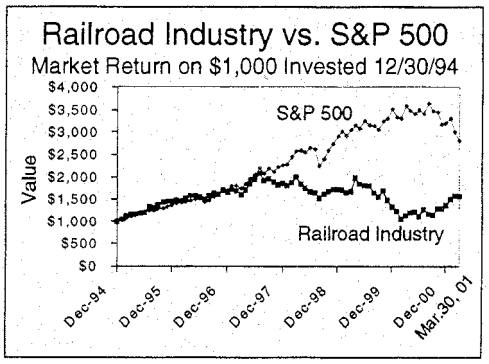




The key to managing our company to achieve returns greater than our cost of capital is to generate increased operating income from our assets. Because we own our infrastructure, our asset base is disproportionately large compared with competing transportation companies in other modes, and with other industries in general.

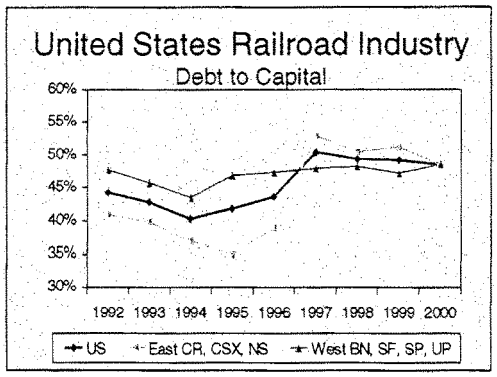
There are two levers available to manage our returns on invested capital. One is operating income, which is a factor of revenues, traffic volumes and expenses. The other lever is assets—our right-of-way, locomotives and facilities. It is my responsibility to achieve returns on capital in excess of capital costs by adjusting these two levers.

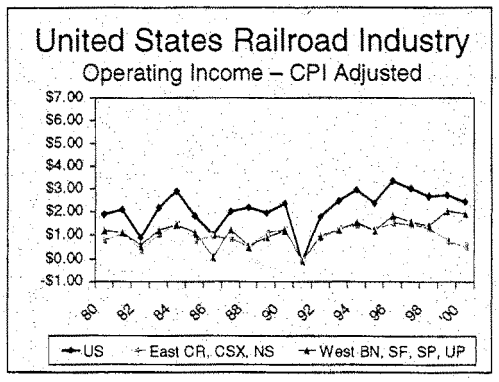
If BNSF does not make enough on the operating earnings side, we must pullback on assets associated with our lowest profit traffic, which has the effect of shrinking the company. Eventually, we will be "right sized" as the profitability of remaining traffic yields returns that exceed our cost of capital. That is simply the way free enterprise must work.



The equity markets assess our progress toward improving returns on invested capital constantly, and their evaluations are reflected in the day-to-day performance of our stock. Over the past several years, the market's judgments have been harsh. Railroads in general, including BNSF, have lagged severely behind overall returns. The message from investors has been loud and clear: reduce capital investments, and generate increased cash flow.

At BNSF, we have been essentially forced by the markets to use much of the cash we generate to repurchase our stock. We have repurchased 93.9 million shares since our stock buy-back program began in July 1997, using $2.4 billion in cash, and the program is continuing. Instead of plowing this capital back into the railroad, we have transferred it out of the company, to our shareholders. The disappointing thing is that despite this aggressive program, our stock performance remains substandard.





The Class I railroads are not in immediate financial danger. Current levels of net operating income are disappointing, but debt levels are manageable by generally accepted business standards. In fact, baring a serious public policy mis-step such as re-regulation, it is highly unlikely we will ever see a repeat of rail industry crisis of the 1970s, with widespread bankruptcies, deferred maintenance, and declining safety. The Staggers Act gives management flexibility to avoid such outcomes.

The Class I railroads, however, could be on the threshold of a subtle, but nonetheless substantial erosion of rail freight capacity. Many short lines and regional carriers are struggling to attract maintenance capital, or simply to keep the doors open. Class I railroads must consider reducing the scope of their networks, if returns do not improve. We need to keep in mind that as the rail industry shrinks, potential public benefits from the railroads shrink correspondingly and our ability to facilitate the nation's economic growth is reduced.

RECOMMENDATIONS

I am confident this Subcommittee understands the potential benefits to our nation from a healthy freight rail system. The challenge ahead is to put the correct public policies in place to achieve these benefits.

In the midst of the debate, the Subcommittee will hear dramatically different—even contradictory—recommendations for policy changes from various stakeholders. Too often, railroads, certain rail shippers, and some shipper associations will appear to be headed in opposite directions. There will be demands for Draconian policy changes that are not focused on improving services, but only on still lower prices for a select group of shippers. As I have pointed out, the railroads—because of financial pressures—are already being forced to cut operating expenses, employees, and capital investments. Cutting our revenues further will only make the challenges faced by the railroads more formidable.

I do not pretend to have all the answers to the railroad policy issues you will be addressing during this Congress, but I have several recommendations. They fall into three categories—short-term changes, public financing issues, and resisting pressures to turn back the clock.

Short-Term Policy Recommendations

Two policy issues stand out for the short-term: Elimination of the 4.3 cent per gallon "deficit reduction" diesel fuel tax paid by railroads, and reform of the Railroad Retirement system.

The deficit reduction fuel tax is a remnant of a past era, and it is discriminatory because proceeds from a similar tax paid by motor carriers are diverted to maintain their infrastructure. This tax costs BNSF about $50 million annually, and railroad industry in total about $170 million per year. Eliminating this tax would be an essential step forward.

Reform of Railroad Retirement is an even more important step toward modal equity. Last year, BNSF paid about $350 million more into the Railroad Retirement system than we would have paid into social security, which is the pension system that covers our competitors in other modes. Our employees at BNSF contributed another $100 million above and beyond what they would have paid into social security. Most of that amount, of course, was made-up indirectly by BNSF because we must stay competitive in labor markets to retain employees.

The deficit reduction fuel tax and the Railroad Retirement system combined cost BNSF about $61 per freight shipment handled last year. That is a substantial burden, given that our net income per shipment was just $120. Eliminating the fuel tax and reforming Railroad Retirement would be significant steps toward achieving competitive equity between modes and providing additional funds for expanding rail infrastructure.

Public Financing Recommendations

Access to capital for infrastructure investments is emerging as one of the biggest challenges for the railroad industry. The problem is that approximately 75% of the $101 billion invested in America's rail industry is in rights-of-way, an investment category competitive modes simply do not have.[5] While I am 100% committed to private sector ownership of rail infrastructure, I would like to see more aggressive public financing support for railroad projects that have clear, demonstrable public benefits, such as public safety enhancements, traffic congestion mitigation, or air quality improvements.

Across the nation, we are starting to see excellent examples of public/private financing partnerships that benefit both communities and railroads. Examples include the Alameda and *FAST* Corridors, capacity expansion projects to accommodate growing commuter and freight rail demands, and initiatives to relocate tracks away from congested downtown locations. While these examples are encouraging, we need to see many more such projects, with more community, state and federal funding support, and we need to see them completed faster.

Many major railroad infrastructure projects have associated public benefits. Whether it is constructing a new side track to move passenger or freight trains more efficiently through an urban area, expanding or building intermodal hubs, implementing a Positive Train Control system, or building more grade-crossing separations, all of these projects have real public benefits. Unfortunately, not enough projects like these will be undertaken without more funding.

The amount of public money that is spent on such projects is miniscule. Especially concerning to me is the small amount of funding available for grade-crossing projects, including crossing closures, constructing separations, and installing or upgrading signals. Last year, BNSF worked with communities to arrange closure of over 600 grade crossings across our system, and we have an equally ambitious plan this year. Inadequate financing is the biggest barrier to closing even more crossings, to improve public safety and community livability.

I have been encouraged by the emerging dialog concerning increased public financing assistance for rail freight projects. I urge you to find ways to increase the amount of funding available for rail projects that have associated public benefits, including funding for short-line railroad infrastructure improvements (H.R. 1020), and to ensure that rail freight considerations are a high priority in the upcoming transportation reauthorization legislation.

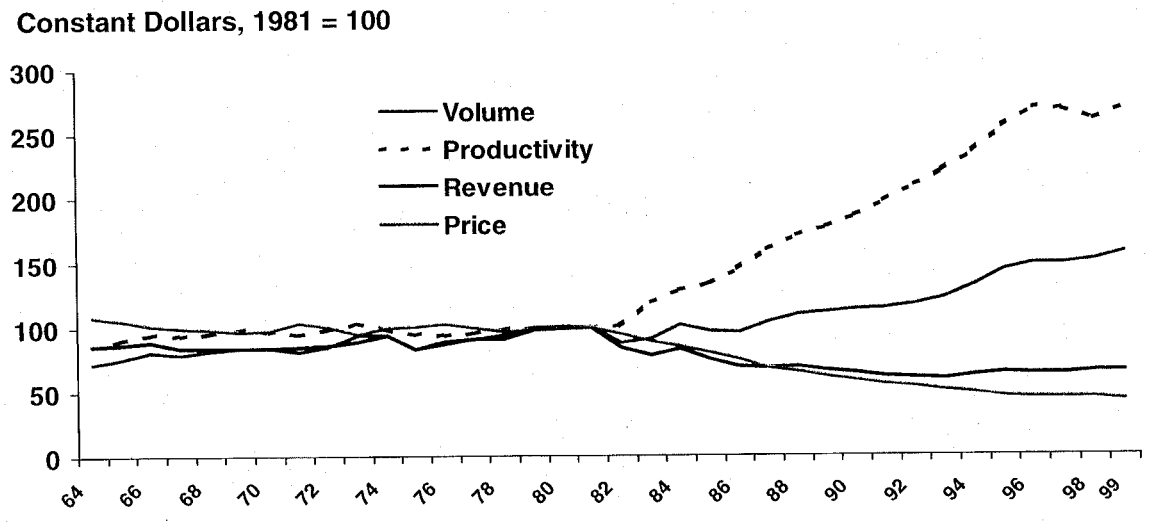
Resist Pressures to "Turn Back the Clock" on the Staggers Act

My final recommendation is akin to the Hippocratic Oath: First, do no harm. It is impossible for me to overstate the harm to our industry that would result from reversing the differential pricing provisions of the Staggers Act, or imposing open access. Rail stocks would plummet, railroads would be forced to respond by sharply reducing capital investment levels, and the future of a rail industry with privately owned and maintained infrastructure would be jeopardized.

The railroad industry has come a long way in the last 20 years. Although there are challenges ahead, none are insurmountable. As was pointed out in this testimony, our industry needs your help to establish a level playing field with competitive modes. I look forward to assisting you any way I can.

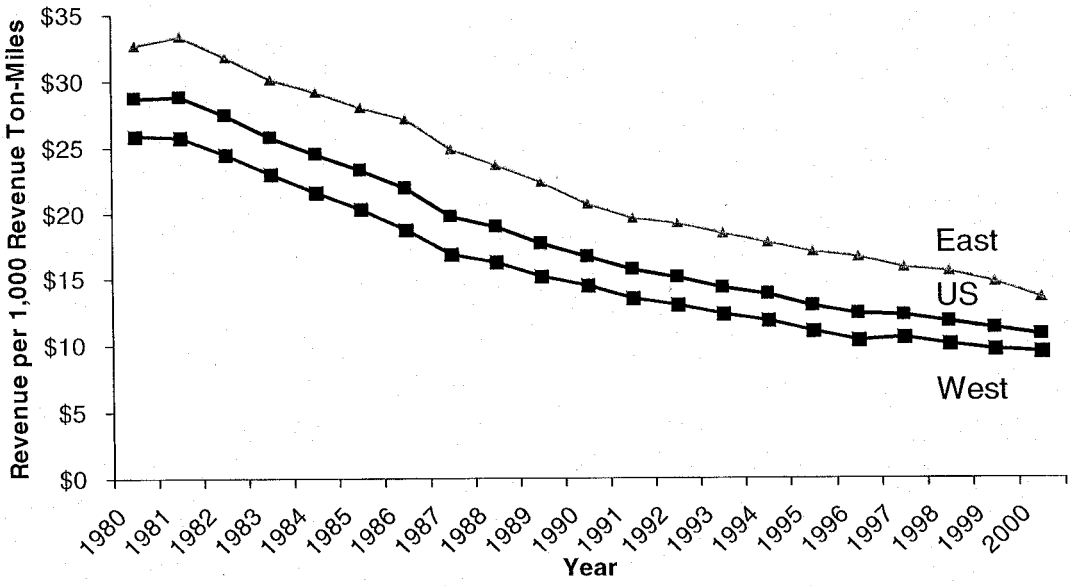
[5] Based on an analysis of rail industry "R-1" reports.

Performance of Major Railroads
1964 through 1999

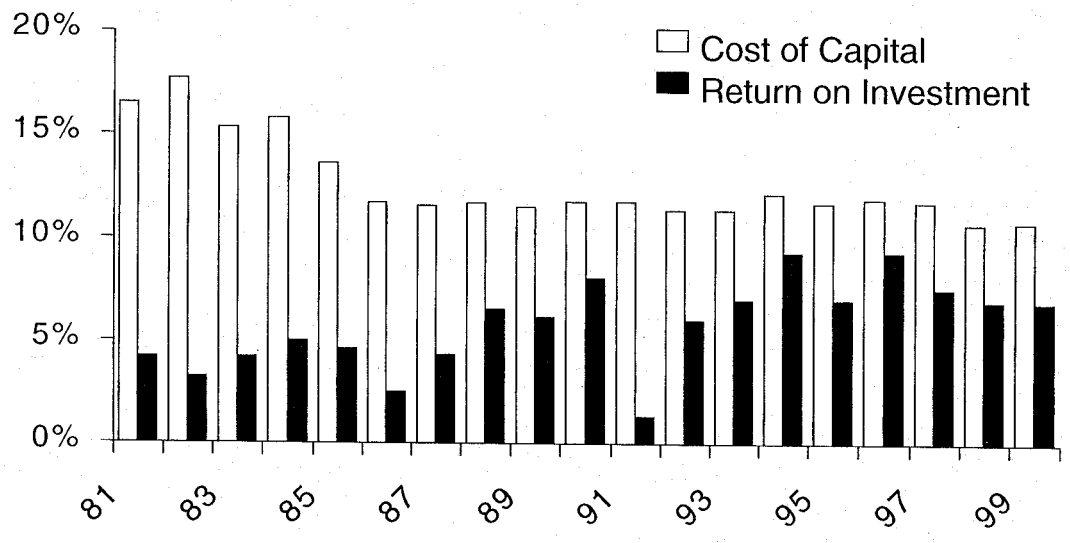


United States Railroad Industry

Revenue per 1,000 Revenue Ton-Miles
CPI Adjusted (1980 Dollars)

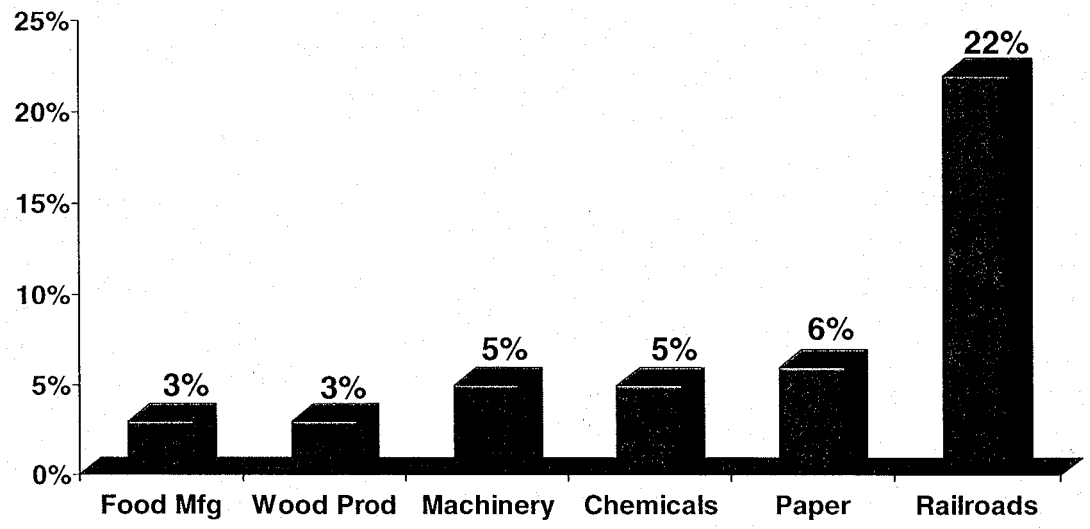


Railroad Cost of Capital vs. Return on Investment



Railroading is America's Most Capital-Intensive Industry

Capital Expenditures as a % of Revenue



Senator SMITH. Thank you very much, Mr. Rose. We appreciate your testimony.

We are also very glad to be joined by Senator Jay Rockefeller, who is a long-time Member of this Subcommittee and has a great interest in these issues, I know, in fact, has a bill that you might be referencing. I may want to ask a question about that if he does not.

Senator, do you have an opening statement or anything you would like to——

Senator ROCKEFELLER. Just put it in the record.

[The prepared statement of Senator Rockefeller follows:]

PREPARED STATEMENT OF HON. JOHN D. ROCKEFELLER IV,
U.S. SENATOR FROM WEST VIRGINIA

Thank you, Mr. Chairman. Those of us who have been watching the freight rail market for some time appreciate the active interest you have shown in the state of the railroad industry since assuming the chairmanship of this Subcommittee. I look forward to working with you on these issues in the months to come.

I want to welcome the witnesses. For many years, I have been engaged in an effort to see the rail industry work in a competitive manner. For some reason, through this effort I have acquired a reputation as someone who is hard on the railroads. I truly hope to dispel that notion a little today, but my overall message will not change: Protectionism does not work. It is in the long-term best interests of both shippers and railroads alike to operate in a competitive market.

It is true that my interest in rail competition may have originated in trying to work with companies in West Virginia dissatisfied with their rail service. However, as I learned more about the industry, I became certain that a truly competitive rail market would benefit not only the shippers, but the railroads as well. Perhaps the benefits would not show up in immediate ways that would encourage the financial markets, but I am more convinced than ever before that competition will improve the health of the industry, and help to prevent the job losses and service consolidation that too often result from the current unworkable system.

Once again, thank you, Mr. Chairman, for making the effort to hold these hearings. I hope the dialog we engage in here today can result in a stronger, more competitive railroad industry.

Senator SMITH. All right, without objection.

Mr. Brickwedel, welcome. It is nice to have a constituent here so knowledgeable about this important industry.

STATEMENT OF WALTER J. BRICKWEDEL, PRESIDENT, OREGON SHORT LINE RAILROAD ASSOCIATION, AND ASSISTANT TO THE GENERAL MANAGER, CENTRAL OREGON AND PACIFIC RAILROAD

Mr. BRICKWEDEL. Thank you, Chairman Smith, Senator. I am Walt Brickwedel, President of the Oregon Short Line Railroad Association. I am also Assistant to the General Manager for Central Oregon and Pacific Railroad, the largest of Oregon's 19 short lines.

Mr. Chairman, let me first say that I am honored by your invitation to appear before this Subcommittee today. It is my privilege to speak to you about the short line railroad industry in Oregon and its infrastructure needs, topics very different than what Mr. Davidson and Mr. Rose just addressed. But first let me say that nationwide since the 1980s, over 500 short line railroads are in operation, having saved tens of thousands of miles of light density rail lines from abandonment.

Today short line railroads employ approximately 25,000 people. They serve thousands of local shippers and are often the only connection that these shippers have to the national rail network. Short

line and regional railroads own, maintain, and operate almost 50,000 miles of track, or 29 percent of the national rail network.

To survive, Mr. Chairman, these lines need to be upgraded and the freight revenues to small railroads are simply not sufficient to get the job done. In Oregon, as it is in any other State, there is no question that short line railroads are a vital link to the State's transportation network. Nineteen short lines move 135,000 rail cars annually, for more than 60 percent of the State's rail-served customers in 200 communities, most of them rural. They offer the only rail transportation to three of Oregon's ports, two of them on the Columbia River and one on the coast, the International Port of Coos Bay.

In a separate folder before you, I hope before you, is a short story about Oregon's short line railroads, along with a map showing each railroad's service area in that State. As part of the short line story, you will find a number of testimonials that attest to the importance of these railroads to Oregon's economy, both for themselves and for a wide range of industries. Short lines act as capillaries for economic development, especially in rural areas, by providing existing and potential businesses with a cost-effective mode of transportation to a widespread number of markets, locally and nationally, through the vast network of our Class I railroad partners.

Many of Oregon's short lines are unique in that their dependency is on the forest products industry and it on us. Our principal commodities are lumber, wood products, pulp, and paper, all of which make up more than half of the short lines' annual traffic and revenue base. The importance of these commodities to consumers and to the nation's housing industry obviously cannot be denied.

The short line railroad system in Oregon covers over 1,100 miles, nearly 50 percent of the total track in the State. Preserving rail service to rural communities and maintaining these 1,100 miles, however, does not come without a hefty price tag. Oregon's short lines were created when the State's large railroads chose to lease or sell off unprofitable branch lines and concentrate mainly on their line haul business. These unprofitable lines understandably had received only the barest of maintenance and were in deplorable condition when spun off. Now it costs an average of $4,000 to $5,000 per mile to maintain this track.

Altogether, Oregon's short lines spend about $8 million annually on the upkeep of their lines, and this does not include any capital improvements. The Oregon Department of Transportation recently estimated that the State's short lines have rehabilitation needs of about $66.3 million. These infrastructure needs are necessary to bring track standards up to 25 miles per hour and to handle the heavier rail cars with a gross weight of 286,000 pounds, cars promoted by the Class I roads, but which some of our short line carriers cannot handle on these former branch lines.

These infrastructure needs are summarized on the attached statement prepared by ODOT for inclusion in the State's 2001 Rail Plan. You will see that these capital expenditure projects are weighted more towards new ties, new rail and bridge repairs. One railroad, for example, has 21 of its total 32 miles that cannot handle 286,000-pound cars. Another 15-mile short line needs $250,000 just to bring its track up to 10 miles per hour. A third short line,

one of our largest, has four individual branch lines that cannot handle the 286,000-pound cars, and each line serves a lumber shipper who is feeling the pinch of competition by not being able to load heavier cars. These are just a few examples, Mr. Chairman.

From time to time, the Federal Government has sponsored rail assistance programs that benefit the nation's small railroads. In the past, funds were made available for railroad projects on an 80/20 match under the Local Rail Freight Assistance Program. A few years ago, the Central Oregon and Pacific Railroad was fortunate to obtain a grant of $5.5 million under TEA-21 to rehabilitate the 87-year-old swing bridge across Coos Bay. Without this rehabilitation, the communities south of this bridge are in jeopardy of being cut off from their only rail connection to the rest of the country.

A Federal program currently in effect is a loan program which you are familiar with, the Railroad Rehabilitation and Improvement Financing Program, or RRIF, as it is known. But instead of a required match, the railroads must first come up with a hefty credit risk premium just to secure the loan. Only one Oregon short line has applied for a RRIF loan to date, but because of the high premium it has not yet accepted that loan. As a whole, many Oregon short lines cannot afford to pay a loan premium, not to mention taking on a long-term debt. A targeted grant program is essential.

One bright sign for short lines this year is H.R. 1020, the Railroad Track Modernization Act. Introduced in March, it authorizes general fund appropriations of $350 million for each of the fiscal years 2002 through 2004 in capital grants to rehabilitate, preserve, and improve track on small railroads. The driving factor behind this proposed legislation is to ensure that the nation's small railroads continue to operate efficiently, particularly when handling the heavier 286,000-pound cars common in the rail industry today.

H.R. 1020 has broad bipartisan support in the House and was endorsed by the American Short Line Railroad Association, the Association of American Railroads, rail labor groups, and all of the Class I roads. I would like to personally thank Mr. Davidson and Mr. Rose for their support of this important legislation and for their ongoing support of the short line industry in general.

Mr. Chairman, I am asking you today if you also will consider supporting our industry by sponsoring a similar bill in the Senate.

Senator SMITH. The answer is yes. We will introduce it right away.

Mr. BRICKWEDEL. Thank you, sir.

I would like to speak personally about the needs of the railroad where I am employed, if I may, the Central Oregon and Pacific Railroad. We operate 387 miles of main line track in Southwestern Oregon and another 63 miles in Northern California. The maximum speed on our railroad is 25 miles per hour, but our average systemwide speed is a mere 14 miles per hour. Our entire Coos Bay line of 135 miles to and beyond the Coos Bay rail bridge must be brought up to FRA Class II standards of operation at 25 miles per hour. Currently 60 percent of that track does not meet those standards.

We estimate the project to cost $6 million and will involve replacing well over 100,000 ties and the resurfacing of that entire line.

An engineering study also estimated that we will need upward of $20 million to enlarge three tunnels over the summit connecting Oregon with California in order to handle high-capacity rail cars and intermodal and stack-pack equipment.

As Southern Oregon's cities close to California continue the grow, it is critical that our rail system be able to handle the increasing demand for rail services, especially intermodal rail.

As you can see, Mr. Chairman, the need to preserve and improve light density rail lines is great, especially those in rural areas that often have taken an economic back seat to other areas of the country for years, resulting in their neglect. Infrastructure improvements not only benefit small railroads and their shippers, but help promote economic development and enhance public safety and the environment.

I hope I have shown through Oregon's experience that a strong national short line railroad industry is paramount to a healthy economy and a well-balanced transportation system. Your sponsorship and support of legislation towards this goal is most welcome. Thank you again for the privilege to testify before you today.

[The prepared statement of Mr. Brickwedel follows:]

PREPARED STATEMENT OF WALTER J. BRICKWEDEL, PRESIDENT, OREGON SHORT LINE RAILROAD ASSOCIATION, AND ASSISTANT TO THE GENERAL MANAGER, CENTRAL OREGON AND PACIFIC RAILROAD

INFRASTRUCTURE NEEDS

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But first, let me say, that nationwide, since the 1980s over 500 short line railroads are in operation, having saved tens of thousands of miles of light density rail lines from abandonment. Today, short line railroads employ approximately 25,000 people, serve thousands of local shippers, and are often the only connection these shippers have to the national rail network. Short line and regional railroads today own, maintain and operate almost 50,000 miles of track, which is 29% of the national rail network. To survive, these lines need to be upgraded, and the freight revenues to small railroads are simply not sufficient to get the job done.

In Oregon, as it is in any other state, there is no question that its short line railroads are a vital link in the state's transportation network. Nineteen short line railroads move 135,000 rail carloads annually for more than 60% of the state's rail-served customers in approximately 200 communities, most of them rural. The short lines also offer the only rail transportation to three of Oregon's ports—two on the Columbia River, and one on the coast, the International Port of Coos Bay. In a separate folder before you is a short story about Oregon's short line railroads, along with a map showing each railroad's service area in the state.

As part of the short line story you will find a number of testimonials that attest to the importance of these railroads to Oregon's economy both for themselves and for a wide range of industries. Short lines act as capillaries for economic development, especially in rural areas, by providing existing and potential businesses with a cost-effective mode of transportation to a widespread number of markets, locally, and nationally through the vast network of our Class I railroad partners.

Many of Oregon's short lines are unique in that their dependency is on the forest products industry, and it on us. Our principal commodities are lumber, wood products, pulp and paper, all of which make up more than half of the short liness annual traffic and revenue base. And the importance of these commodities to consumers and to the nation's housing industry cannot be denied.

The short line rail system in Oregon covers over 1,100 miles, nearly 50% of the total track in the state. Preserving rail service to rural communities, and maintaining these 1,100 miles of track, however, does not come without a hefty price tag.

Oregon's short lines were created when the state's large railroads chose to lease or sell off unprofitable branch lines and concentrate mainly on their line haul business. These unprofitable branch lines understandably had received only the barest of maintenance, and were in deplorable condition when spun off. Now it costs an average of $4-$5,000 per mile for the state's short lines to maintain their track. All together, Oregon's short lines spend about $8 million each year on safety and upkeep of their lines. And this does not include any capital improvements.

The Oregon Department of Transportation (ODOT) recently estimated that the state's short lines have immediate rehabilitation needs of about $66.3 million. These infrastructure needs are necessary to bring track standards up to 25 mph. They also take into account the increased use of heavier rail cars with a gross weight of 286,000 lbs., cars promoted by the Class I railroads, but which some of our short lines cannot handle on these former branch lines. These infrastructure needs are summarized on the attached statement prepared by ODOT for inclusion in the state's 2001 Rail Plan. As you will see, these capital expenditure projects are weighted more toward new ties, new rail and bridge repairs.

One railroad, the Willamette Valley RY, has 21 of its total 32 miles that cannot handle 286,000 lb. cars.In fact it still has some 62# rail that it operates over that was rolled in 1891. The minimum weight of rail that can safely handle these heavy cars is generally 90#. Another 15 mile short line needs $250,000 just to bring its track up to 10 mph. And a third short line, one of our largest, has 4 individual branch lines that cannot handle 286,000 cars, and each line serves a lumber shipper who is feeling the pinch of competition by not being able to load heavier cars. These are just a few examples.

From time to time the federal government has sponsored rail assistance programs that benefit the nation's small railroads. In the past, funds were made available for railroad projects on an 80:20 match under the Local Rail Freight Assistance Program, and some are available under TEA–21. A few years ago, the Central Oregon & Pacific Railroad was fortunate to obtain a grant of $5.5 million to rehabilitate the 87 year old swing bridge across Coos Bay. The funding, however, is still in an account waiting for the required $1.3 million match, which the owner of the bridge, the Port of Coos Bay, is still attempting to obtain. Meanwhile, the communities south of this bridge are in jeopardy of being cut off from their only rail connection to the rest of the country.

A federal program currently in effect is a loan program, the Railroad Rehabilitation and Improvement Financing Program (RRIF) but, instead of a required match, the railroads must come up with a hefty Credit Risk Premium prior to the issuance of the loan. Only one Oregon Short Line has applied for a RRIF loan to date, with half of the amount to pay down debt and the other half to make track improvements. But because of the high premium, it has not yet accepted the loan. As a whole, Oregon's short lines cannot afford to pay a loan premium, not to mention taking on a long term debt. A targeted grant program is essential.

One bright sign for short lines in Congress this year is H.R. 1020—The Railroad Track Modernization Act of 2001. Introduced in March, the bill authorizes General Fund appropriations of $350 million for each of the fiscal years 2002 through 2004 in capital grants to rehabilitate, preserve, or improve the track on small railroads. The driving factor behind this proposed legislation is to ensure that the nation's small railroads continue to operate safely and efficiently, particularly when handling the heavier, 286,000 lb. rail cars now common in the railroad industry.

H.R. 1020 has broad bipartisan support in the House, and was endorsed by the American Short Line and Regional Railroad Association, the Association of American Railroads, rail labor groups and all of the Class I railroads. I'd like to personally thank Mr. Davidson and Mr. Rose for their support of this important piece of legislation, and for their unwavering, ongoing support of the short line railroad industry in general. Mr. Chairman, I am asking you today, if you also will consider supporting our industry's efforts to upgrade its infrastructure by sponsoring a similar bill in the Senate.

I can speak personally about the needs of the railroad where I am employed—The Central Oregon & Pacific Railroad. We operate 387 miles in Southwestern Oregon, and another 63 miles in Northern California. The maximum speed on our railroad is 25 mph, but our average, system-wide, is a mere 14 mph. Our entire Coos Bay Line of 135 miles to and beyond the Coos Bay rail bridge must be brought up to FRA Class II safety standards of operation at 25 mph. Currently 60% of that track does not meet those standards. We estimate the project cost to be $6 million, which will involve replacing well over 100,000 ties and the resurfacing of the entire line.

An engineering study also estimated that we will need upward of $20 million to enlarge three tunnels over the summit connecting Oregon with California in order

to handle high capacity rail cars, and intermodal and stack pack equipment. As Southern Oregon cities close to California continue to grow, it is critical that our rail system be able to handle the increasing demand for rail services, especially intermodal rail.

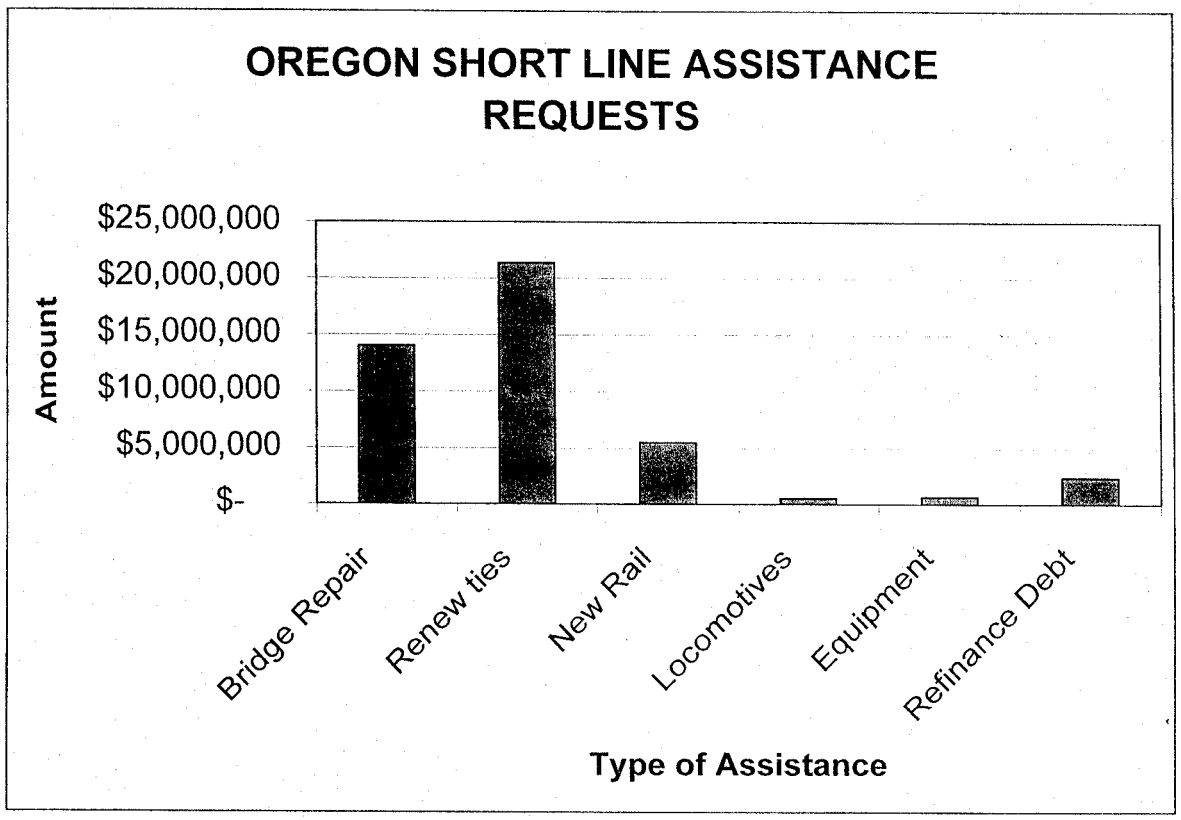
As you can see, the need to preserve and improve light density rail lines is great, especially those in rural areas that often have taken an economic back seat to other areas of the country for years, resulting in their neglect. Infrastructure improvements not only benefit small railroads and their shippers, but help promote economic development and enhance public safety and the environment. I hope I have shown, through the Oregon experience, that a strong, healthy, national short line railroad industry is paramount to a well balanced transportation system in this country. Your sponsorship and support of legislation toward this goal would be most welcomed.

Thank you for the privilege to testify before you today. I will be happy to entertain any questions you may have.

OREGON SHORT LINE ASSISTANCE REQUESTS

Railroad	Project Description	Estimated Cost	Railroad Total Request
Albany & Eastern	Cross tie renewall	$ 1,215,000	
	Rail renewal	$ 550,000	
	Bridge repair	$ 150,000	$ 1,915,000
Central Oregon & Pacific	Cross tie renewall, surface and line	$ 6,043,725	$ 6,043,725
City of Prineville	Cross tie renewall, surface and line	$ 2,773,835	$ 2,773,835
Lake County Railroad	Cross tie renewall, surface and line	$ 446,416	
	Rail renewal	$ 1,660,881	$ 2,107,297
Mount Hood Railroad	Cross tie renewal	$ 500,000	
	Bridge repair	$ 155,000	
	Retaining wall construction	$ 100,000	
	Locomotive acquistion	$ 100,000	
	Access pavement	$ 75,000	
	Debt refinance	$ 1,100,000	$ 2,030,000
Port of Tillamook Bay	Tunnel repair	$ 1,000,000	
	Bridge repair	$ 1,500,000	
	Rail renewal	$ 450,000	
	Cross tie renewal	$ 1,530,000	
	Locomotive acquisition	$ 450,000	
	Debt refinance	$ 1,300,000	
	Maintenance equipment acquisition	$ 690,000	$ 6,920,000
Portland & Western	Rail renewal	$ 23,800,000	
	Bridge repair	$ 12,205,000	
	Cross tie renewal	$ 8,861,000	
	Turnout renewal	$ 1,620,000	$ 46,486,000
Willamette Valley Ry.	Rail, cross ties and turnout renewal	$ 470,000	$ 470,000
		Total	$ 68,745,857

March 7, 2001
SOURCE: Responses to ODOT Questionaire


OREGON SHORT LINE ASSISTANCE REQUESTS
Amount
$25,000,000
$20,000,000
$15,000,000
$10,000,000
$5,000,000
$-
Bridge Repair
Renew ties
New Rail
Locomotives
Equipment
Refinance Debt
Type of Assistance

Senator SMITH. Thank you very much.

Mr. Brickwedel, I wonder if other States have an association of short line railroads similar to what our State is fortunate enough to have?

Mr. BRICKWEDEL. I cannot answer that, Mr. Chairman. But I would be happy to find out and get you that answer.

Senator SMITH. Well, clearly you are keeping rural Oregon connected to the big commerce picture of our country, and I thank you for that and congratulate you on that.

You testified that Oregon's short lines are spending $8 million annually on safety and upkeep, but that figure does not include any capital improvements. Can you tell us how much is being spent on capital improvements?

Mr. BRICKWEDEL. I cannot speak for the other roads, Mr. Chairman but I know that Central Oregon and Pacific Railroad, one of the two largest, averages $2 million a year on capital improvements alone. This is aside from routine maintenance, and that represents generally 10 percent of our annual gross revenue.

Senator SMITH. Are you keeping up with the need for capital improvements?

Mr. BRICKWEDEL. We are making improvements on one line and that we call the Siskiu Line between Eugene and the California border. But we have not met the needs of the Coos Bay line to which I referred, that 135 miles. That is why we really need the infusion of $6 million.

Senator SMITH. If these lines did not exist, what would be the truck availability to move the wood chips and agricultural products I assume you are moving?

Mr. BRICKWEDEL. Mr. Chairman, I am sure we would not have enough trucks available to handle it. On the Central Oregon and Pacific Railroad, for example, we handle 45,500 carloads a year. If you multiply that by 3 to 3.6 truckloads, that is an immense strain on our State highway system and our bridges.

Incidentally, that is up. Our traffic is up 46 percent from when we started 6 years ago. So we continue to grow.

Senator SMITH. Can you talk about the paper barriers that you referenced? Tell us about that?

Mr. BRICKWEDEL. The paper barrier or the agreement, the railroad industry agreement that deals with the paper barrier, is a very, very significant step towards relations with Class I railroads and the short lines. On the Central Oregon and Pacific Railroad, I am not aware of any paper barriers that we have or breakdowns in the paper barriers that we have. I know there are some examples throughout the country, but I believe that none exist in the State of Oregon.

Senator SMITH. Mr. Rose and Mr. Davidson, I am not sure I know of an industry where the capital requirements are so great and the return on capital is so small, frankly. I think if America knew the state of our railroads there would be some alarm about how we are falling behind the demand. Now, if commerce keeps falling off the way it has the last few months, there is not a problem. But we do not want that. We want it to pick up.

I guess as I have listened to both of your testimonies, you are saying three things: Do not re-regulate, repeal the 4.3 budget def-

icit tax that is still in place, and help with the railroad retirement. I suspect a lot of the Members of Congress would want to know, frankly, if we did all of those things would the savings go into these capital improvements that are apparently so intensive and so necessary?

Mr. DAVIDSON. Well, I will just speak for the Union Pacific here. Clearly a portion of it would, Senator. As I have mentioned today, we have cut back from what has been roughly a $2 billion capital level to where this year we are going to be somewhere in the $1.6 billion to $1.9 billion range depending on what happens with the economy. If it gets worse, it will be less than that.

But that would be a big help. I think Mr. Rose said just the fuel tax alone would save his company $50 million. It would save us well north of that, because we burn 1.3 billion gallons of diesel fuel a year. So it is just a huge number for us. Likewise, the Railroad Retirement Reform Act, basically what that does is gives us a chance to invest in the equity market and hopefully enhance our return so we could reduce the amount of capital that we fund the program with. I think between employee funding and employer funding it is something like 36 percent of our payroll goes into railroad retirement. So it is just a huge number, and the potential savings there are substantial as well.

Clearly, today we do have the opportunity to invest more money in infrastructure and some of that money could certainly be directed there.

Mr. ROSE. I would just add that when we get together several times a year and plan out the capital requirements for our railroad and add it all up, the list is long, about $4 billion if we funded every project that we thought was a good project. This year we are going to spend $1.5 billion. So the list is just enormous of where we could spend money to enhance the quality of our railroad, as well as provide more opportunities to partner with the trucking companies to take trucks off the highway.

I agree with Dick's point that at the end of the day we have an industry that is falling well short of the return on invested capital and any moneys that can come back into the operating income line will only benefit that and get this business to where long-term it will have a normal investment over the size of the franchise that we have right now, instead of this continuum of what I would call a creep of fewer rail miles every year in this nation.

It is really going to come down to a very thoughtful public policy debate of whether or not the United States believes that money should be spent in terms of making sure that rail infrastructure is kept up or continue to invest in the highway infrastructure.

I would just add a fourth point to your three points, and that is that I do believe that there needs to be a very specific item around public policy, around private-public partnerships, to invest in rail infrastructure.

Senator SMITH. My time is up.

Senator Rockefeller.

STATEMENT OF HON. JOHN D. ROCKEFELLER IV, U.S. SENATOR FROM WEST VIRGINIA

Senator ROCKEFELLER. Thank you, Mr. Chairman.

The capital requirements of railroads are minuscule in comparison to the needs of our nation's airlines, minuscule. Your statement is pretty good here, 13.9 percent, 9.54 percent. I will have some more questions about that.

You know my general orientation. Neither of you are from the East. None of you are from the East. I have a feeling that the railroads are contributing to the decline of West Virginia. I know that. I have felt that for 17 years.

But I would like to ask you a question, Mr. Rose. Let us go with the railroads for a moment—I mean, airlines. They are deregulated, right?

Mr. ROSE. Correct.

Senator ROCKEFELLER. Now, let us suppose I wanted to take a trip from Washington, DC., to Eugene, Oregon. How do you get to Oregon from Washington, DC.?

Senator SMITH. It is United to Portland and then commuter down to Eugene.

Senator ROCKEFELLER. Okay. Well, let me add another step in the middle to make my case better. Let us say you had to stop in Chicago.

Senator SMITH. You often do.

Senator ROCKEFELLER. You often do.

Senator SMITH. And you often are delayed there, too.

Senator ROCKEFELLER. Now, let us supposing that the airline told me what it would cost to get to Chicago, but they declined to tell me what it would cost me to get to Portland, but they would tell me what it would cost to get to Eugene from Portland. Would you consider that acceptable behavior?

Mr. ROSE. I understand your point. You are going to correlate this to the classical bottleneck. But again, I do not think that the scenario fits the same story.

Senator ROCKEFELLER. Well, if you could answer my question.

Mr. ROSE. Well, I would probably choose a different route.

Senator ROCKEFELLER. You fly, right? You fly?

Mr. ROSE. Right. So I would probably look at both networks and decide which network I wanted to travel on.

Senator ROCKEFELLER. Well, that was not really my question, though. My question was, let us suppose in the case—and I do not know Oregon except through its fine Senators. But you are taking a trip and the airline declines to tell you how much it would cost to get you from this point to that point in a three-point trip. You would find that unacceptable as a traveler?

Mr. ROSE. Well, actually we see that all the time. I will use my great home State of Texas, where it is cheaper to fly from Texas to Kansas City than it is from Texas to Oklahoma City when you fly right over Oklahoma City. That is because somebody has decided to make the investments in Kansas City and they have found that their economics work to build——

Senator ROCKEFELLER. Mr. Rose, I appreciate these diversions, but you are not answering my question. I have a right to have my question answered. You have a right to give testimony and I have a right to ask questions. You can say, I refuse to answer your question, but do not talk to me about other routes.

Would you consider it acceptable if, let us say, Delta or American or United say, well, we will tell you what it costs to get from here to here, but we will not tell you what it costs to get from here to here, which in effect means that you really would not know what the lowest price would be?

But forget the competition factor. Just take the one instant. Let's say only United flies to Eugene, Oregon. I am going to make that up. They said they would not tell you the price from Chicago to Portland. You would find that unacceptable?

Mr. ROSE. Again, it depends on the level of service.

Senator ROCKEFELLER. If there is a level of service, what does that have to do with it if they will not tell you what it costs?

Mr. ROSE. Well, again it depends on what service I am buying.

Senator ROCKEFELLER. No, it does not, Mr. Rose. Your answer is yes, I would find it unacceptable. Your answer is yes and you know that. You know that. You are doing your——

Mr. ROSE. No, I do believe that the traveling public would find that unacceptable, but I do understand how an airline would make a better investment and make sense out of a network to be able to run that all the way to Portland without being able to give a division over Chicago. I do understand that.

Senator ROCKEFELLER. Well, I am glad you do, but I prefer to go with your earlier statement that the public would find that unacceptable. You might not, but the public would.

Mr. ROSE. Fair enough.

Senator ROCKEFELLER. Okay.

Mr. Davidson, how do you define "competition"? What does "competition" mean to Union Pacific? What does the word mean?

Mr. DAVIDSON. Well, competition means that there are people out there willing to haul business, more than one person.

Senator ROCKEFELLER. Where there is not more than one person, there is no competition?

Mr. DAVIDSON. Well, there is source competition, but I cannot think of an occasion where there is not some form of competition.

Senator ROCKEFELLER. I see. Would I be correct that UP does not voluntarily quote a rate to its rail customers for moving freight from a point on the UP system to an interchange point where that traffic can be transferred to a competing railroad?

Mr. DAVIDSON. Do you mean a point where only we serve the point of origin, the only railroad that would serve the point of origin? Is that your question?

Senator ROCKEFELLER. Your answer should be no.

Mr. DAVIDSON. Well, I am not sure I understand your question. That is what I am trying to clarify.

Senator ROCKEFELLER. Okay. Would I be correct that UP does not voluntarily quote a rate to its rail customers for moving freight from a point on the UP system to an interchange point where that traffic can be transferred to a competing railroad? This is the same conversation as with Mr. Rose.

Mr. DAVIDSON. Well, there are cases where we do and cases where we do not.

Senator ROCKEFELLER. Well, that is not really very helpful.

Mr. DAVIDSON. I am trying to answer your question fully. If you are getting at the bottleneck question—that is the popular term

that people use today, "bottleneck"—there are situations certainly where we serve either the point of origin or destination and the competitor does not, but at some point along the route the competitor could either receive or deliver that traffic.

In many of those cases, we do not offer a rate to that point, the reason being that if we invest in infrastructure to move that traffic all the way from point A to Z and we were forced to give up that traffic after a short movement and then the government imposed a maximum rate level above that, obviously the rest of the route would wither and die. It is just not the way that you do business, and it has not been for decades.

Senator ROCKEFELLER. Would wither and die.

Mr. DAVIDSON. Would wither and die.

Senator ROCKEFELLER. But your answer is no and that is what I expected. If I am correct also that the effect of this is to make the shipper captive to the UP for the entire distance the product needs to travel and not just over the bottleneck section, how does that square with an objective definition of competition?

Mr. DAVIDSON. Well, you missed the early part of the testimony, but one of the examples concerned my competitor here, Mr. Rose, as an example. Where the free market provides the inducement, there will be competition. As an example, in south Texas at a place called North Seadrift, Burlington just worked out a deal with a company called Union Carbide, which is now part of Dow, to build an eight-mile extension of railroad to access that facility to provide competition for us. It was a situation worked out at arm's length between the carrier and the customer.

Probably the biggest example in the last quarter of a century is our building a piece of track into the Powder River Basin, where Burlington Northern had that piece of traffic, it looked like a good market to us, and we spent a half-a-billion dollars to access that coal field. Now we are so competitive that we are hauling coal over 2,000 miles.

So the free marketplace does work. If the government mandates that we give up our private assets, it will not work. That is what we had prior to 1980, was government-mandated price levels, and our railroad network was $20 billion in arrears on capital investment. That is what we do not want to go through again.

Senator ROCKEFELLER. It is interesting because I have been here for 17 years on this Subcommittee listening to railroads plead poverty, and it has never been what I would call an overwhelmingly compelling case, the revenue inadequacy aspect and all the rest of it. The infrastructure requirements that you have are so much less than what the airlines have, so much less.

Oh, yes, they are. If you take Newark—do you know, there are more planes that fly into Teterboro than fly into LaGuardia Airport? There are reasons for all of this.

Mr. DAVIDSON. I must tell you, I know little about the airline industry.

Senator ROCKEFELLER. I know, but I know quite a lot about it and I am trying to make a point here. That is that they have enormous capital needs, much greater than the $4 or $5—or whatever it was—billion that you quoted. They are talking tens and tens of

billions of dollars and that does not include air traffic control and all the rest of it.

Now, they do not quote. They tell you what it costs at every step, and they are in brutal competition. They fight over every nickel. They hate each other. They do.

Mr. DAVIDSON. Mr. Rose and I are being nice to each other because we are here testifying, but we do not normally pal around together.

[Laughter.]

Senator ROCKEFELLER. But you are in a common philosophical league, which is called the American Railroad Association, which has a way of being together when it counts, and I admire you for that.

But it strikes me as interesting that their capital needs are much greater, their poverty is absolute in that they are in and out of Chapter 11. You all started out with 50 when I was here Class A. Now you are down to four or five, whatever it is. Your bound statements are pretty good. But you withhold the right to quote where there is a captive shipper.

Now, the Staggers Act—you always use the word "re-regulation" because you think it scares us or it scares the American public. It probably does scare the American public, but it does not us, because it does say that where captive shippers are involved that the STB, formerly ICC—of course, nobody knows what the STB is—that they have a voice in this and that if you do not do the right thing there can be a right to petition.

We all know that is a farce, because the right to petition, it takes so long that nobody can afford to petition, so it is kind of an empty thing. That is our fault. We made a mistake, and we need to change the legislation to correct that mistake, and one of these days we will. Like my great-grandfather, I am going to live to be 98 and that will be my legacy, when this thing is changed and put right.

Mr. ROSE. Senator Rockefeller, if I could make one comment about your illustration of the airline industry.

Senator ROCKEFELLER. Yes. Is that getting to you a little bit?

Mr. ROSE. Not at all.

Senator ROCKEFELLER. Okay.

Mr. ROSE. Because there is a huge difference between the two industries. The rail industry pays for almost all of the infrastructure that we run over and the airline industry does not. If you think about what pays for the air traffic control system, who pays for the airports, it is the American taxpayer. If we want to shift this debate to where the Federal Government wants to own all the railroads, all the infrastructure, this debate can change totally.

Senator ROCKEFELLER. Did I not just year you talking about pension relief and all kinds of—in other words, you want some money from the government, right?

Mr. ROSE. No, we do not want money from the government.

Mr. DAVIDSON. We are asking for our money back. The railroad retirement system is funded by the railroad and by its employees.

Mr. ROSE. One-hundred percent.

Senator ROCKEFELLER. Okay. Mr. Rose, let me go back to you. Do you know any other deregulated industries in America that are

granted the right by Congress to deny their customers access to competition? Whether or not you feel you do or do not, do you know of any others?

Mr. ROSE. No, I do not.

Senator ROCKEFELLER. In your BNSF earnings, it is true that they were lower than expected.

Mr. ROSE. That is true.

Senator ROCKEFELLER. That has been happening some these days. In part, is that not because you paid about $230 million in unusually high fuel prices?

Mr. ROSE. Yes, that is correct.

Senator ROCKEFELLER. I am going to assume, because BNSF is a sophisticated corporation, that your railroad tried to mitigate these unforeseen expenses by trying to find the lowest priced fuel available. Am I right?

Mr. ROSE. Correct. We hedge a portion of our fuel.

Senator ROCKEFELLER. Would I be correct to assume that BNSF would object to a government-supported monopoly that would limit your diesel purchases to one supplier?

Mr. ROSE. As long as our competition had that same thing, rail and truck, I would not care.

Senator ROCKEFELLER. No, I am not talking about rail and truck. I am talking about railroads.

Mr. ROSE. Well, just BNSF and everybody else could buy on the market?

Senator ROCKEFELLER. No, railroads.

Mr. ROSE. Yes, I would be opposed to that, because of our competitors in the trucking industry.

Senator ROCKEFELLER. Now, let me say with my fuel monopoly hypothet for a moment. In your opinion, if railroad sought to allow BNSF to seek the best possible price for fuel would that be regulatory?

Mr. ROSE. No. I guess I do not understand your question.

Senator ROCKEFELLER. Pretty clear. In other words, if we specifically gave you the right to find the best possible price for fuel. You do your shopping anyway, so you can argue that it is a moot question. But if we specifically in law gave you that right, would that be regulatory in your mind?

Mr. ROSE. I guess it could be. I mean, if you took it away from us and then gave it back to us would it be regulatory? Yes, I guess it would be. I am not following your question and I apologize for that.

Senator ROCKEFELLER. Okay. Mr. Brickwedel—well, actually I am over my time, Mr. Chairman. I apologize.

Senator SMITH. We will do a second round.

Neither of you really talked about what Senator Rockefeller referenced about the fact that rail rates are challengeable via the STB, but air rates are not challengeable by any such committee. Is this a sham, as the Senator seems to be suggesting? Are they challenged?

Mr. ROSE. They are indeed.

Senator SMITH. Is the STB working?

Mr. DAVIDSON. Senator, we just went through a challenge with a large chemical customer that we do business with and there were

some adjustments made as a result of that. In fact, today we have four rate cases pending before the STB. So it does indeed happen, and it works. I wish I could tell you that we had more rates that were challengeable, but we have very few because our average returns are quite modest.

Senator SMITH. I am interested in it because passenger rail seems to be coming back and particularly as it relates to commuter rail. In my State in particular, Dick, we are trying to get a connection to our light rail system in Portland, which is I think a great success. There is the issue of how we utilize trackage in common for, obviously, purposes of commerce and commuting.

I wonder if you can speak to the whole commuter rail question, if that works at all, or is this a nonstarter?

Mr. DAVIDSON. I can indeed, sir. We have many commuter operations on our railroad, places like Chicago, Los Angeles, the Sacramento to Oakland area. Many times the public looks at a railroad track and thinks you have unlimited capacity and we would like to use that capacity to move commuters, which is a totally logical way to look at things.

However, if commuter rail forces themselves on a freight railroad track and you do not have adequate capacity and you displace freight, you end up with more people, more trucks on the highway, than you had previously with automobiles. So the way we have tried to address this issue is by working cooperatively with the commuter authorities and understand what the track limitations are, the capacity limitations of a particular piece of railroad, and work with them to provide enough additional capacity so that you can accommodate both freight and commuter.

We have many, many successes there that we can point to, in Chicago and Southern California and even in the State of Oregon. We recently have worked with Amtrak coming south out of Portland to add additional capacity so that we could accommodate more Amtrak trains.

Sometimes the negotiations are not quite as simple as one would like, and people are always shocked when they find out how much it costs to add infrastructure to a railroad. But having said that, I think it is far cheaper than building additional highways, and we normally are able to find common ground.

Senator SMITH. I know it is not easy, but it is important that somehow we make these connections because, frankly, some of the utilization of these rails, if we had to duplicate all of them for passenger or commuter rail, it just would be prohibitive, just as building more highways is prohibitive, if not impossible, in some places.

Mr. DAVIDSON. We will do our best wherever those situations exist to try to work them out in a fair and equitable manner.

Senator SMITH. I am intrigued by Senator Rockefeller's questions and I want to understand better the relationship between you and the STB. We had them in our hearing last time. Is this an agency that is working to help foster competition, to keep rail rates understandable and fair? Is this a step between the re-regulation you fear, or is this an agency that in your view is an irritation, but it is just not working? What is your characterization?

Mr. DAVIDSON. Well, I might address that first if you do not mind, since we went through a merger in 1996 that we had a little

bit of difficulty with in 1997 and 1998. I got to be a frequent customer of the STB. First off, addressing the issue of competition, I would tell you that the first thing they did was make absolutely certain that no customer that had been previously served by two different railroads lost two-railroad service. They did that resoundingly and went beyond that even and said that any new customer that developed along the route that the BN was given trackage rights on could have access to that railroad. So they did more than just ensure that existing competition was preserved.

They also permitted another competitor to use our rail lines to gain access to Mexico. So not only was competition preserved, it was enhanced in that case.

As far as maximum rate regulation, as I just testified, we just went through a hearing on that with one of our major chemical customers where there were some adjustments made and there are now four cases pending concerning us. So they clearly do manage that responsibility carefully.

Senator SMITH. Is the rate challenge that is imposed on you, not on the airlines, but are those—how regular an event is that?

Mr. DAVIDSON. When a customer feels that his rates are unreasonable, the customer has the right to challenge them before the STB.

Senator SMITH. Just on their own basis? This is unreasonable.

Mr. DAVIDSON. It has to pass certain screens, that the revenue-cost variable has to exceed a certain level to be heard by the STB. But if it does—well, if it does not, obviously it is not an unreasonable rate. But if it does, they will accept that and make a decision on it.

Senator SMITH. The hypothetical that Senator Rockefeller gives, that they want to get from Chicago to Eugene and you do not quote them what it costs to go through Portland, is that per se unreasonable?

Mr. DAVIDSON. Well, let me say this, Senator. The analogy is not a good analogy of comparing airlines and railroads, because airlines do not maintain their own infrastructure, their own track structure, like we do. So I think it fails the test of being a reasonable comparison.

But if what the Senator was trying to get at, that you had to quote a rate between point A and B even though you could haul the traffic all the way from A to Z, and then you had a maximum rate imposed on you from A to B, the railroad industry would clearly fail. Now, in my submission, which I did not bore you with in my verbal testimony, in my submission there is a very detailed study that was funded by the Federal Railroad Administration last year that points out that if the railroad company is to survive they would have to be able to charge their profit for that entire move from A to Z on the bottleneck portion, A to B, where we would be required to quote that rate.

So I know you probably will not have time to read that study, but if one of your staff would look through it I am certain that they would see the compelling reason why it is set up like it is.

Senator SMITH. If I have trouble getting to sleep tonight, I will begin reading it.

Mr. DAVIDSON. It works for me.

Senator SMITH. But thank you, I am glad to know that that is there, because this is a question I would like to have some answers on.

Mr. DAVIDSON. In fact, there is an executive summary, if I remember right, in the front—it is about three pages—that tells the story pretty well.

Senator SMITH. Very good.

Mr. ROSE. I would just like to add, Mr. Chairman, that the number of rates that get challenged is minuscule compared to the number of shippers we have. That is because, again, the vast majority of the rates do not get anywhere close to the revenue-cost ratio that is set forth in the STB.

Senator SMITH. Very good.

Senator Rockefeller.

Senator ROCKEFELLER. Thank you, Mr. Chairman.

I want just to clarify one point on the so-called right to challenge. One of the things I think that has been pretty indisputably established here over the years is that, yes, there is a right to challenge, but nothing ever comes out. I mean, we have had 17-year challenges. That is a famous case which you are all familiar with. But people do not have the money to challenge, you know, the granary, the coal mine, the whatever. They do not have the money. These folks have the money to delay and stall.

So the right to challenge is there, but in effect it is not there. I do not say that ideologically. It really does work out that way.

Senator SMITH. Cost of entry is high.

Senator ROCKEFELLER. It is just, there are so many barriers, it is so expensive, things are extended for so long, that there is not a right to challenge. That is really a basic point in all of this.

Mr. Davidson, I just wanted to clarify one thing. When you were talking about Powder River Basin, you said you thought it would be good for the company to build out there. Was it not the STB that told you to do that?

Mr. DAVIDSON. Absolutely not. We did that on our own volition. The STB did not exist then.

Senator ROCKEFELLER. Well, the ICC, whatever.

Mr. DAVIDSON. No, they did not instruct us to do that. We had to get their permission to do it, but it was a free market effort.

Senator ROCKEFELLER. Well, I am questioning that and we will be in further touch about it.

Mr. DAVIDSON. I would be glad to provide you with evidence supporting what I just said.

Senator ROCKEFELLER. Okay. Mr. Davidson, this is a little bit what I was saying to the good Senator. A March, 1999, GAO report—and we pay a lot of attention to those things around here—says that the rate reasonableness process, which is what we are talking about, is too expensive, too complex, too consuming to work. In fact, the report also says that shippers do not want to complain to the STB because they fear retribution from the railroads. I have seen that in my own State.

Mr. DAVIDSON. I doubt you have seen it West of the Mississippi.

Senator ROCKEFELLER. I am sure I never could find it West of the Mississippi. But I do find it East of the Mississippi and I have seen it at work in my own State directly.

And that railroads have a very good system. If the complaint level, Mr. Chairman, gets too high, they will go and work out an arrangement with a high profile complainer and they will settle the problem and they will reduce rates. But all of this—and then of course, that particular granary or steel company, whatever it is, coal company, is happy, they stop complaining. But the problem persists elsewhere.

I think about 20 percent of the nation's users of railroads are captive shippers. That may have gone up or down in the last few years, but it is about 20 percent. That is a lot of people, and they are all over the country and they are in all different forms.

In fact, the report also said that the shippers do not want to complain because of the retribution. In addition, coal shippers at least have to pay a $57,000 filing fee just to enter the process. Well, that is a lot of money if you have got a little granary somewhere.

The situation is bad enough that last year 250 CEOs and other top officers of companies, trade associations, the chemical manufacturers, made it their top issue last year. They are all over the country. Captive shipping was their top issue last year, the number one thing they wanted to get changed, and they are all over the place asking us to address this problem.

On top of that, the chairperson of the STB testified earlier this year to this Subcommittee that there is nothing that the STB can do to address the situation. So what are we in Congress to do about the situation, Mr. Davidson?

Mr. DAVIDSON. My suggestion is let the free market work. I just gave an example of Mr. Rose and Union Carbide working together to provide a second rail line into North Seadrift, Texas. I do not believe you were here, Senator, when I was testifying, but if you look at that chart in front of you, there were 554 new industries that located on the Union Pacific system in the last 3 years. Of those 554 industries, 465 chose sites that only had one railroad serving them, over 80 percent. And some of those were billion dollar chemical companies. I could take you down and show a brand new location where they have built along our railroad track, where they had other choices.

In fact, we did a survey of State industrial development departments and our own industrial development group about what the top 25 choices are when a customer locates his industry, and two-railroad competition came out 24th on the list of 25 criteria they used.

Senator ROCKEFELLER. That is great. I would be anxious to look at those figures and try and find what I can underneath them.

Mr. DAVIDSON. It is all outlined in my written testimony.

Senator ROCKEFELLER. I say that respectfully, but 17 years of experience here has taught me that when you get figures from the railroad folks that you have got to look underneath the figures to find out.

Mr. DAVIDSON. I would be delighted to go through it with you ad infinitum, sir.

Senator ROCKEFELLER. I am sure you would, sir. I am sure you would.

Mr. Rose, did you not say that you would welcome infrastructure help from the government?

Mr. ROSE. Yes, I think that there are a lot of areas where public-private development can be made, specifically, the bill that is before you, before the House right now, on Amtrak funding, we have been actively supporting.

We also are active in a number of different communities around commuter type service: the Alameda Corridor out in Southern California, Project North Star up in Minneapolis-St. Paul is currently being worked, locations in Denver, the RTA project in Seattle going down to Tacoma. I think that there are a lot of opportunities to work commuter and Class I railroads together for public-private funding.

Senator ROCKEFELLER. So when you indicated—and Mr. Chairman I know my time is up. When you indicated that the airlines are different because they get Federal subsidies, but you would welcome infrastructure help, would you not?

Mr. ROSE. Well again, at the risk of repeating myself, where there is public-private partnership—

Senator ROCKEFELLER. I understood what you said. I was just sort of capping it off.

Mr. ROSE. Yes.

Senator ROCKEFELLER. All right.

Mr. Chairman, just in closing I would say that I think that only in the railroad context does the victim, so to speak, of what I would call monopoly power have to prove the reasonableness of a monopoly rate. That is the point I wanted to make to you, that when the right to challenge is there, but it is unprecedented anywhere else, it is hard to do.

I thank you.

Senator SMITH. Thank you, Senator.

I would like to probe just a little bit more on where Senator Rockefeller is going because I think we are really at the nub of the problem in where we are trying to find some answers. If the ability to challenge a rail rate were repealed, would the rail carriers be more inclined to quote a rate?

Mr. DAVIDSON. If there was not maximum rate regulation?

Senator SMITH. Yes, if the STB was not—if there was no right of appeal here, would you be more inclined the be quoting a rate?

Mr. DAVIDSON. We would certainly take a strong look at that. You cannot have it both ways, though.

Senator SMITH. Currently, when asked to quote a rate is it along a segment where interchange is easily accommodated or would additional dollars be needed to establish interchange points?

Mr. ROSE. That is a good point. A lot of quotes that we are asked to make are on interchange points that are low volume and literally there is no throughout through that interchange, and additional capital would have to be invested.

Senator SMITH. A question comes to my mind as to—and I think you and I talked about this, Mr. Rose—what Europe is doing. Is there anything to be learned from what Europe is doing on rail, or is their example something we learn—and I am asking this because I want to get it on the record—is what we learn what not to do, or are there some things that they are doing that we should do?

Mr. ROSE. I think it is a great lesson, and you are going to hear some testimony a little bit later in the day about the calamity that

Europe is in because what they have done, they have separated the infrastructure out from the operations, and then within that infrastructure they have subcontracted out the maintenance of that infrastructure. At the end of the day, when you hear people talking about open access and running trains over people's railroad, at the root of it comes where somebody has to pay for that capital investment. Somebody has to be incented to make that capital investment. Somebody has to be incented to make that railroad safe and strong.

When you separate out the two parts, I think you are going to find exactly what happened in Europe is happening in other locations as well.

Senator SMITH. Are European countries trying to change those things now?

Mr. ROSE. I think right now they are in the middle of trying to understand what has happened. In fact, with the number of critical accidents that they have had, they have literally hired a team of experts from the United States. That is the thing that people continue to forget. We are the envy of the world in rail freight transportation, not high-speed passenger, but rail freight transportation. Everybody looks to our model to be the only model that has worked.

So there is literally a group of experts that Europe has contracted with from the United States to go over and show them the mistakes that were made.

Senator SMITH. Because you keep the incentive to improve and maintain with the railroad.

Mr. ROSE. The underlying owner.

Mr. DAVIDSON. Mr. Rose is exactly right. In fact, the people that operate the infrastructure over there are making inquiries today about seeing if there is an American railroad executive they could find to go over there and help them straighten out the mess.

Sort of the model I think of railroad privatization in recent years would be the country of Mexico. They started their privatization process in 1996 and they have used the American model to set it up, and it appears to be working quite well, where England has done just the opposite. In fact, they have announced they are going to have to put huge subsidies into the English system to bring it back to life.

Senator SMITH. Mr. Brickwedel, as a constituent I do not mean to leave you out of this fight. Do you have any observations or closing comments you want to make on any of the questions Senator Rockefeller and I have been asking?

Mr. BRICKWEDEL. I do want to say, Chairman Smith, that our relationship as the Oregon short lines, we have a strong relationship with both BNSF and the Union Pacific. We work, I would say, fairly well with them. I would not say that they satisfy every one of our needs, but to date we see no barriers. We are able to receive the cars on a timely basis that our customers need and provide the service to the Class I railroads, to satisfy our customers in getting their product to market.

In fact, the Central Oregon and Pacific Railroad has a service agreement with Union Pacific that allows us to swap crews. That is part of the railroad industrial agreement that was referred to

earlier. We entered that agreement probably a little over a year ago and that is working very, very well and has reduced transit time for our customers.

Senator SMITH. Mr. Davidson, Mr. Rose, any closing thoughts or comments?

Mr. ROSE. I just want to end with, capital is the heartbeat of this industry. You are going to hear testimony later about what we think as an industry, what outside people think it needs, using scientific management tools, what really is the ongoing capital requirement of this industry.

You will also see that right now, that the industry is being underinvested. Whatever comes from all of these discussions, whether we call it re-regulation, rail reform—everybody has a little bit different name for it—there had better be a lot of thoughtful consideration given to how you solve the return on investment capital issue. If it is not, we will set this industry back in the poor condition that existed before Staggers.

Mr. DAVIDSON. I would certainly second that. I would just say once again, while the American railroad industry is far from perfect—we strive for perfection, but seldom attain it—it is still the envy of the world as far as a privately owned, privately operated rail system. If you looked at Europe and the other countries where it is operated by the government, you would see just how inefficient something can be.

Prior to Staggers, you saw what happened when we were overregulated. Companies were going bankrupt. The government took over the predecessor companies of Conrail, as one example, and put more money in it. So you can imagine. I can assure you, if you try to wind the clock back and take away our private property and force others into using our facilities at regulated rates, that is the inevitable outcome that we will have again.

Senator SMITH. Gentlemen, thank you very much. Your testimony has been very helpful in understanding this issue, and I think we have had a good exchange. So we again thank you, and invite now our second panel.

Mr. DAVIDSON. Thank you, sir.

Senator SMITH. Mr. James Valentine, Managing Director, Morgan Stanley; Mr. William J. Rennicke, Vice President, Mercer Management Consulting; Dr. Allan M. Zarembski, President of Zeta-Tech Associates; Mr. Kevin D. Kaufman, Senior Vice President, Louis Dreyfus Corporation; and Dr. Harvey A. Levine, independent transportation economist.

We welcome you all and we will begin with Mr. Valentine when everyone takes their seat.

[Pause.]

Senator SMITH. Mr. Valentine, the microphone is yours.

STATEMENT OF JAMES J. VALENTINE, MANAGING DIRECTOR, MORGAN STANLEY

Mr. VALENTINE. Great. Thank you. In the brief time I have here before you today, I would like to paint a picture of the freight railroad industry from the institutional equity investor perspective. These are large institutions managing money in this country. I think it is going to be somewhat unique among all these presen-

tations you are going to hear today because my clients do not rely on the freight railroad industry's success to run their businesses. That is, they can invest in other industries, avoiding railroads altogether, and in fact many of them do just that.

I think the point here is that my testimony is from a somewhat impartial group of individuals who are not reliant on the industry. Obviously, if we had a collapse of the railroads immediately, the shareholders and the bondholders would be upset. But I guess what I am trying to get at is that a slow deterioration, as we have seen over the years, is not going to warrant Wall Street coming down here and lobbying for reforms. They will in effect, vote with their shares and get into other industries.

In fact, the value of the U.S. freight railroads right now as a percentage of the 500 largest companies traded on the U.S. stock market is right now one-fifth the size it was in 1980. I think that demonstrating that capital has exited the freight railroads at a time when it has flowed into other sectors of corporate America.

Despite all the improvements that we have had since the 1980 Staggers Act, Wall Street still remains less than impressed because the railroads have given too much of the savings back to customers instead of the shareholders. That is evidenced by the fact—two key points here: that the industry still does not earn its cost of capital. I do not care how anybody wants to compute it. I have been told that there are different ways to compute it. You can do it five different ways if you want. You are going to come up that the industry does not earn its cost of capital, at a time when the customer rates continue to decline.

In fact, if we look at the period since 1980, during Staggers, we see that railroads have lost market share to trucks every year. Furthermore, on an inflation-adjusted basis, railroad freight revenues last year were 28 percent below where they were in 1980.

Investors bought the railroad stocks throughout the 1980s with the idea that once the benefits of Staggers were realized the companies would start to earn their cost of capital. Then about 10 years later, by the early 1990s, investors were becoming frustrated by the lack of progress, although they became pacified for a few years because we had PEB-219 that took us from five-man crews to two-man crews. There were some savings there.

But a few years later, after it was clear that, even with two-man crews, the industry would still not earn its cost of capital, investors began again to lose faith in the industry, at which time the leaders started to initiate the most recent round of mergers, with the prospects of reducing costs and their capital needs through industry consolidation.

But now here we sit, 6 years after this merger round began, and we still have an industry with inadequate returns. I guess making matters worse—and I think this is a really key point—is that we are witnessing a long-term trend in freight patterns towards faster, smaller, lighter, and more frequent movements of freight, which puts railroads at an inherent disadvantage to trucks and air freight. I am also a trucking analyst and air freight analyst, and I can just see the market shifting just because of the way we are moving freight in this country.

Investors again became aggravated, or I should say are still aggravated, for that matter, by poor returns and they are now pressuring railroad management to cut back on capital expenditures. You heard Dick and Matt up here talking about this. I sit through these meetings. I watch when they mention—when Dick says, we are going to spend $1.6 to $1.9 billion this year, you can hear the people in the audience gasp, the shareholders, these large institutional shareholders, thinking, why are we spending so much capital with such bad returns?

The railroads spent in excess of $50 billion on capital expenditures over the past 10 years and they have generated less than $30 billion of net operating income. For now, these spending cuts in capex we have seen starting to come down more recently due to pressure from shareholders are mostly in areas of growth. I think you heard that from the short line speaker today, that we are seeing that there is definitely cutbacks in growth, in capital for growth.

I am quite concerned that without some structural change we are going to see Wall Street continue to lose interest in the industry and run the risk of a government bailout of the freight railroads, similar to what we saw with Amtrak for passenger service back in the early 1970s. Keep in mind, what brought about Amtrak did not happen overnight. It was a slow, steady problem with passenger service over multiple years.

I should also mention, do not let the recent rally in railroad stocks suggest that railroad investors have a new-found hope for the industry, because most of them are up so far year-to-date, because I think most of this rally can be explained simply by short-term momentum investors returning to industrial stocks in advance of what they expect will be a recovery in the economy later this year.

I should also mention that it is probably worth noting that even after the recent rally in these stocks three of the four major railroad stocks right now are below where they were four years ago.

So here are some of the issues from my perspective, being an analyst here for about 10 years watching the industry I think Congress might want to consider to help the railroads achieve their cost of capital and grow revenue at a rate at or equal to the rate of inflation, better than the rate of inflation:

First, put the railroads on an even playing field with the long haul trucks and barges in terms of Federal subsidies. By any account, long haul trucking—and I'm just talking about long haul now, that competes with the rails—and the barge industries receive substantial Federal dollars to help maintain their right-of-way, whereas the freight railroads get none.

Second, remove rate caps and other onerous restrictions that prevent the industry from pricing its product in a manner to obtain proper returns. As is discussed in my written testimony, the biggest misconception about freight railroads is that they abuse their market power with excessive rates. We saw that today, this discussion. If this were truly the case, we would see hundreds of upstart railroads attempting to extract monopoly rents similar to those upstarts in the telecommunications industry that have flourished by extracting ATT monopoly rents prior to the 1984 or after the 1984

splitup. I challenge anyone to demonstrate where large sums of entrepreneurial capital are entering the railroad industry on the prospects of extracting these alleged monopoly rents from the incumbent carriers.

Third, remove the disincentives for conducting mergers. We need to get the savings from further consolidation.

Fourth, create incentives for the railroads to conduct expansion in places where highways have too much congestion. You heard the Alameda Corridor is a perfect example. We need more examples like that.

Fifth, reform FELA. FELA creates too much of a cost for the railroads, too much of a gamble for employees who become injured.

Sixth, reform railroad retirement. You have heard that already today. Obviously, we could save some money for the industry.

Finally, eliminate the 4.3 cent gallon deficit reduction fuel tax.

I guess some of my suggested reforms may seem controversial, but if we keep conducting business the way we have in the past we are destined to get the same poor financial results and eventually put the entire industry into jeopardy of collapse. On Wall Street we have a saying that investors vote with their shares and that when they get frustrated with a company they usually just sell the stock, as opposed to becoming involved in a lengthy battle with management or external forces such as regulators or unions. Do not wait for a coalition of investors to come marching down here to Washington for reform. The investors have been voting with their shares, which explains why the industry stock value is one-fifth the size it was back in 1980 relative to the overall market.

Unfortunately, the railroad industry and its shareholders have not had enough influence in getting these aforementioned reforms accomplished, and unless someone steps in to help we may eventually need to turn to the government, as we did with the Penn Central when it filed for bankruptcy, which we all know was a very costly and painful process for the customers, employees, management, and the communities involved.

Thank you.

[The prepared statement of Mr. Valentine follows:]

PREPARED STATEMENT OF JAMES J. VALENTINE,
MANAGING DIRECTOR, MORGAN STANLEY

My name is James J. Valentine and I am a Managing Director at Morgan Stanley, a New York-based investment banking firm, responsible for the firm's equity research effort pertaining to railroads, trucking and air freight. I have been researching the freight transportation sector on Wall Street for approximately 10 years. We take freight transportation very seriously at Morgan Stanley which may explain why our firm has been ranked by third-party constituents as number one or two each year for its equity research and investment banking in this area. My time is evenly split between interviewing industry sources, including company management, and discussing my conclusions with institutional investors. The work conducted by my team on freight transportation is regularly quoted by the major business news sources such as the Dow Jones' and Bloomberg's news wires, *The Wall Street Journal* as well as freight transportation periodicals such as *Traffic World* and *Transport Topics*. I received a masters degree in finance from the University of Iowa and hold the Chartered Financial Analyst (CFA) designation.

TESTIMONY

The stock market value of U.S. railroads as a percentage of the 500 largest companies traded in U.S. equity markets (S&P 500 index) is one fifth the size it was

in 1980,[1] demonstrating that capital has exited the railroads at a time when it has flowed into other sectors of corporate America (see Exhibit 1). In my testimony, I will attempt to explain why there has been such a decline in interest for railroad stocks by the public equity markets. We believe that any student of the railroad industry understands that passage of the Staggers Rail Act of 1980 was a watershed event, as it removed archaic regulations that had burdened the railroads for decades. Since passage of the Act, the industry has witnessed improvements to profitability brought about in part by the industry's newfound ability to exit unprofitable markets. Furthermore, major labor reform in the early 1990s allowed railroads to reduce 5-man crews to 2-man crews, thus accelerating the trend of an already declining workforce (see Exhibit 2) and resulting in substantial improvements to overall railroad productivity. The problem from the perspective of Wall Street investors with all of this success is that the railroads have given much of the savings back to customers instead of the shareholders, as evidenced by the fact that the industry still does not earn its cost of capital (see Exhibit 3) at a time when customer rates continue to decline (see Exhibit 4).[2] In my opinion, the equity markets are slowly losing patience with railroads as an investment as they continue to wait for the promised land of adequate returns, and may eventually turn their backs on the industry, leaving the government to bail it out similar to what we saw with the creation of Amtrak for passenger service in 1970.

I do not mean to imply that the industry is on its last leg because it clearly is not, but I believe if we do not make structural changes to the business model, the slow downward trend is unlikely to reverse itself. Since this is an industry that has taken over a century to build, any analysis about its well-being or future prospects should be done over an extended period of time. If we look at the period since 1980, we see that railroads have lost market share to the trucks in every year (see Exhibit 5).[3] Furthermore, on an inflation-adjusted basis, railroad industry freight revenues in 2000 were 28% below those of 1980 (see Exhibit 6). For any industry, declining revenues is not a sign of health and in fact, usually leads to bleak consequences. Investors bought railroad stocks throughout the 1980s on the idea that once the benefits of Staggers could be realized, these companies would earn their cost of capital. By the early 1990s, investors were becoming frustrated by the lack of progress although they became pacified when PEB 219 reduced crew sizes from 5-man to 2-man, resulting in better margins and thus better returns for the industry, but still not enough to earn the cost of capital. A few years later, after it was clear that even with 2-man crews the industry would not earn its cost of capital, investors began to lose faith at which point the industry leaders initiated a major round of mergers, with the prospects of reducing costs and capital needs through consolidation. But now, six years after this round of mergers began, we still have an industry with inadequate returns. Furthermore, it appears that the industry's largest area of savings in the past, namely labor productivity, is slowing as headcount reductions have decelerated (see Exhibit 2) and unlikely to result in additional savings unless there is a major change in work rules by the unions. Making matters worse, we are witnessing a long-term trend in freight patterns towards faster, smaller, lighter and more frequent movements of freight which puts railroads at an inherent disadvantage to trucks and air freight.[4]

Investors, again becoming aggravated by poor returns, are now pressuring railroad management to cut back on capital expenditures. And for good reason, we think, when we see that the railroads have spent in excess of $50 billion on capital expenditures over the past 10 years and generated only $30 billion of net operating income (see Exhibit 7).[5] For now, these cutbacks are in areas marked for growth, but if this trend continues we could see deeper cuts by the railroads which would very likely hurt service levels. Unfortunately, here we sit in 2001 with the railroads having no more cards to play to win back the shareholders. I'm quite concerned that without some structural change we are going to see Wall Street continue to lose interest in the industry, and thus run the risk of a government bail-out of the freight railroads sometime in our lifetime. And don't let the recent rally in railroad stocks suggest that the long-term investors have a newfound hope for the industry, as we believe much of the rally can be explained as simply short-term momentum inves-

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[1] In 1980 the S&P Railroad index was 2.2% of the S&P 500 index and has dropped to 0.29% at the end of 2000.

[2] *Railroad Ten Year Trends* Rate of Return on Net Investment and Cost of Capital, Association of American Railroads.

[3] *Transportation in America*, Eno Foundation.

[4] *Internet Strategies: Surveying the Freight Carriers*, Morgan Stanley Dean Witter, August 15, 2000.

[5] *Railroad Ten Year Trends* Rate of Return on Net Investment and Cost of Capital, Association of American Railroads

tors returning to industrial stocks in advance of an expected upturn in the economy. If history repeats itself, after this economic recovery is underway, the railroads will once again be valued by the long-term investors, who traditionally look for adequate returns as a prerequisite before investing.

I'd like to dispel the misperception that railroads are taking advantage of their market position by charging excessive rates. Let's start with the fact that the U.S. has not witnessed a major new rail line built in at least 20 years. And yet, during the past 20 years, we've seen billions of dollars poured into new industries (including the dot-coms) because the prospects of good returns have been there, even if the actual returns haven't materialized. If the railroads were "gouging" their customers to the benefit of the shareholders it would seem that some of this entrepreneurial capital would have been deployed into the railroad sector similar to the manner in which AT&T has been under attack by new competition since its 1984 split-up. To illustrate this point, in 1999 there were over 700 long-distance companies in the U.S. up from just a handful prior to 1984, driven by the prospects of extracting the former AT&T monopoly rents and generating returns that exceed each of their respective costs of capital. With investors having deployed enough capital to add 120,000 route miles of telecommunication fiber to non-AT&T networks over the past 10 years, why can't we get enough capital to build just one new 100-mile rail line in the U.S.? The answer, in our view, is that railroads don't have the prospects of earning a good return on their investments and so they can't attract new capital. When customers complain that they are being unduly charged by the carriers I think it's completely missed that there is no law in the U.S. that says a new rail line can't be built. If the railroads were charging rates that were truly excessive, we would see entrepreneurs pouring capital into new build-outs to get these customers competitive access to another carrier, similar to what we see in the long-distance telephone market—and yet, we can find less than 20 such rail build-outs in the past decade. Customers need to be careful about what they wish for, as their efforts to drive rates lower will likely only cause more capital to leave the industry and service to deteriorate, continuing this downward cycle that has occurred for the past 50 years.

Here are some of the issues that we think Washington might consider addressing to help the railroads achieve the basic principles of any healthy industry, namely revenue growth equal to or better than the rate of inflation and a return on capital better than the cost of capital.

- Put the railroads on an even playing field with long-haul trucks and barges in terms of Federal subsidies.[6] By any account, the long-haul trucking and barge industries receive substantial Federal dollars to help maintain their rights-of-way, whereas the railroad industry gets none.
- Remove rate caps and other onerous restrictions that prevent the industry from pricing its product in a manner to obtain a proper return. As we discussed earlier, in this day and age of free-flowing capital for good investments, customers can force competition onto the incumbent rail carrier in almost every instance where they would claim excessive pricing.
- Remove disincentives for conducting mergers. The existing and pending railroad merger rules require too much of the economic benefits of a merger be returned to customers and labor. This is evident in the fact that despite all of the industry consolidation over the past six years, the industry's returns are no better (see Exhibit 3).
- Create incentives for railroads to conduct expansion in places where the highways have too much congestion. The $2.4 billion Alameda Corridor in Southern California would never have been built without public funding. When completed in 2002, it will allow for more trade to move through Southern California while taking trucks off of the local roads, thus allowing for economic growth in an environmentally-friendly manner. We need more creative solutions such as this in order to help the railroads and the nation's transportation system support economic growth in congested places.
- Reform FELA, as it creates too much of a cost for the railroads and too much of a gamble for employees who become injured. The other modes of freight transportation are not burdened by FELA, which puts the railroads at a competitive disadvantage.
- Reform Railroad Retirement by allowing the unions or railroads to manage their retirement programs and presumably lower the associated costs. Similar to

[6] *1997 Federal Highway Cost Allocation Study,* U.S. Department of Transportation, Federal Highway Administration. ". . . combinations (trucks) registered over 80,000 pounds will pay on average only about 60 percent of their highway cost responsibility."

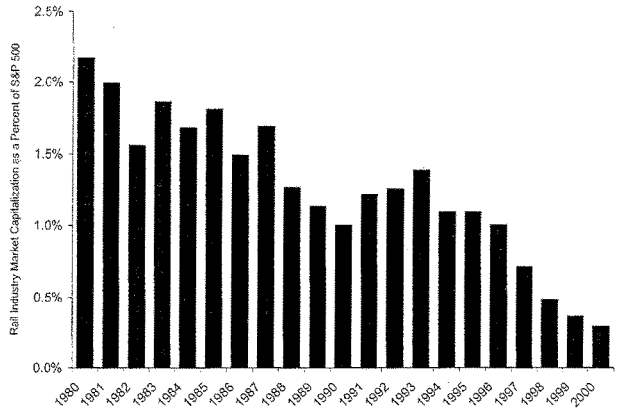
FELA, the other modes of freight transportation are not burdened with this regulation, and thus the railroads are at a competitive disadvantage.

• Eliminate the 4.3-cent per gallon deficit reduction tax as it is no longer needed.

Some of my suggested reforms may seem controversial, but if we keep conducting business the way we have in the past, we believe we are destined to get the same poor financial results and eventually put the entire industry into jeopardy of collapse. I've been researching the railroad industry for ten years and have come to the conclusion that I will not be researching this industry ten years hence, unless there is major change, because it is unlikely to be an industry that investors will want to own. If we assume that the trends that have taken place over the past 50 years continue into the future, we see that this industry is headed for trouble. Unfortunately, the railroad industry has not had enough influence in getting the aforementioned reforms accomplished and unless someone steps in to help save the hand that feeds many of us, we expect that all of us in the rail industry will have to find new industries in which to work.

Exhibit 1

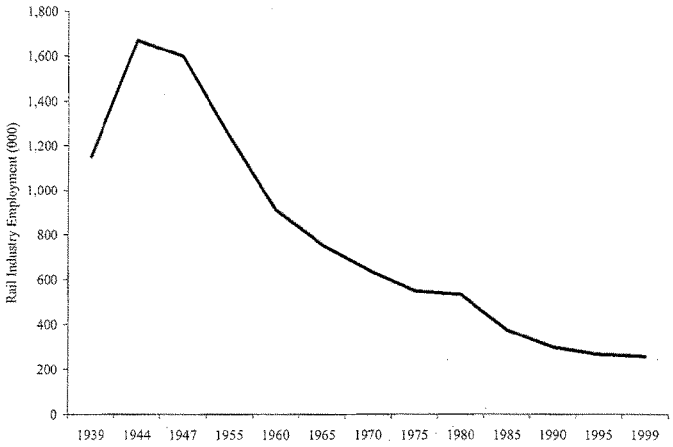
U.S. Railroad Market Capitalization as a Percentage of S&P 500 Capitalization



Source: Standard & Poors

Exhibit 2

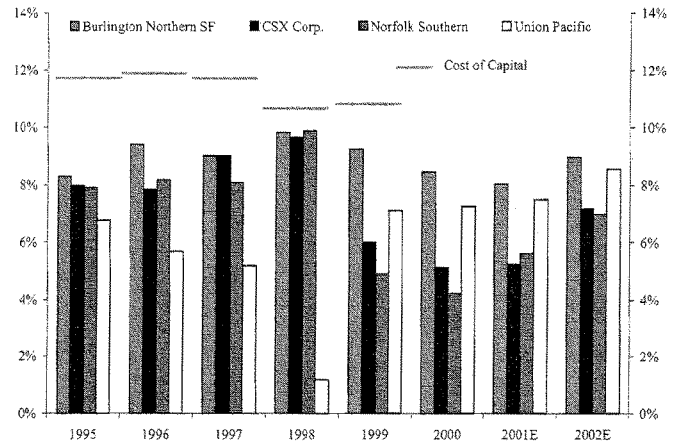
U.S. Railroad Industry Employment, 1939-1999



Source: Association of American Railroads

Exhibit 3

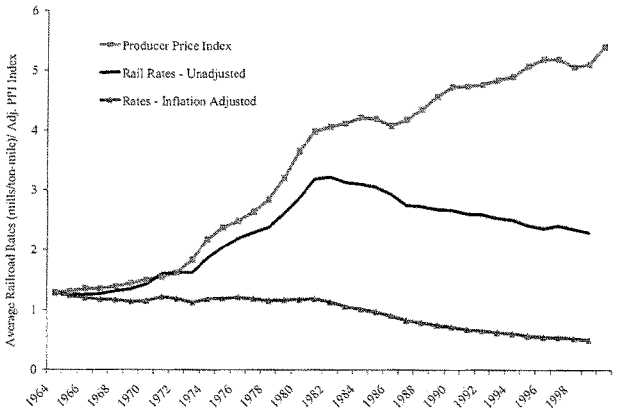
Return on Capital and Cost of Capital, for Major U.S. Railroads 1995 - 2002E



Source: Association of American Railroads (cost of capital), Morgan Stanley Research (return on capital calculations)

Exhibit 4

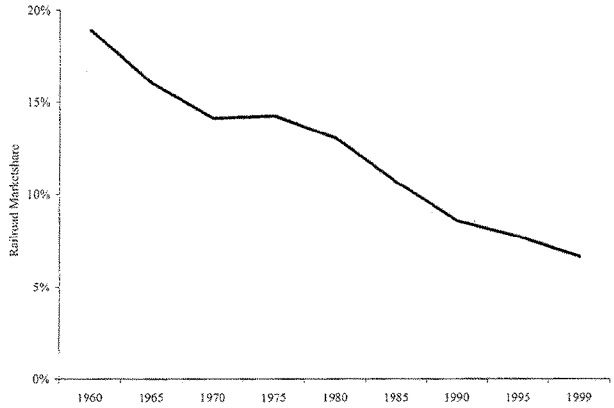
Average Annual Railroad Customer Rates and Producer Price Index, 1964-1999



Producer Price Index: indexed to 1964 = 1.284. Source: Association of American Railroads, FactSet

Exhibit 5

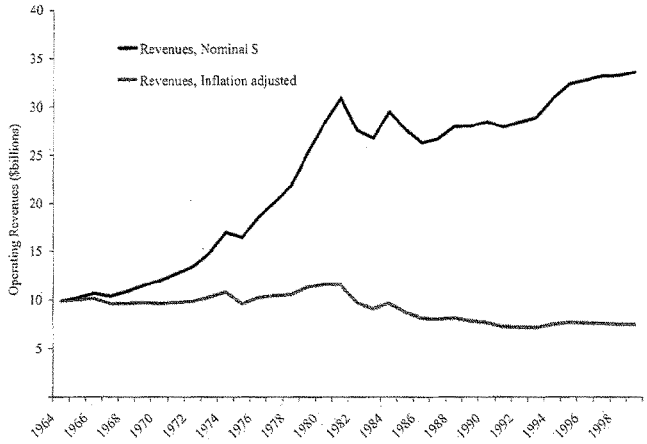
Railroad Market Share of Total Nation's Freight Bill, 1960-1999



Source: Transportation in America report, Eno Foundation

Exhibit 6

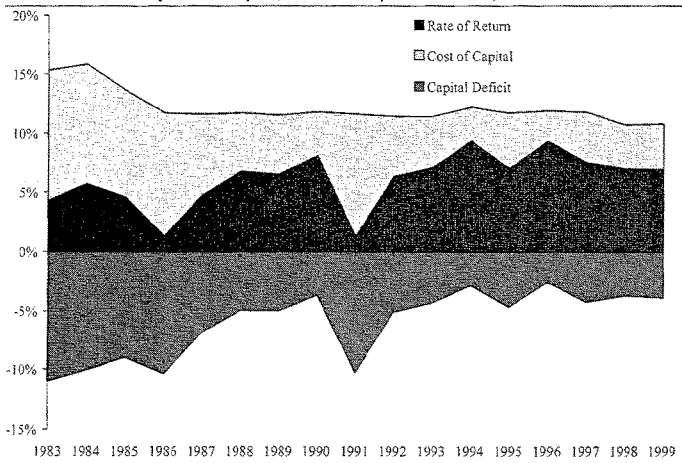
U.S. Railroad Industry Freight Revenues, 1964-1999



Source: Association of American Railroads, Morgan Stanley Research

Exhibit 7

U.S. Railroad Industry Cost of Capital, Return on Capital and Deficit, 1983-1999



Source: Association of American Railroads

[1] In 1980 the S&P Railroad index was 2.2% of the S&P 500 index and has dropped to 0.29% at the end of 2000.
[2] *Railroad Ten Year Trends* Rate of Return on Net Investment and Cost of Capital, Association of American Railroads.
[3] *Transportation in America*, Eno Foundation.
[4] *Internet Strategies: Surveying the Freight Carriers*, Morgan Stanley Dean Witter, August 15, 2000.
[5] *Railroad Ten Year Trends* Rate of Return on Net Investment and Cost of Capital, Association of American Railroads
[6] *1997 Federal Highway Cost Allocation Study*, U.S. Department of Transportation, Federal Highway Administration. "...combinations (trucks) registered over 80,000 pounds will pay on average only about 60 percent of their highway cost responsibility."

Senator SMITH. Thank you very much; very helpful.
Mr. Rennicke.

STATEMENT OF WILLIAM J. RENNICKE, VICE PRESIDENT, MERCER MANAGEMENT CONSULTING, INC.

Mr. RENNICKE. Thank you. My name is Bill Rennicke and I am a Vice President of Mercer Management Consulting. For the last 20 years I have been working in the consulting industry and had 10 years of transportation experience prior to that.

One of the interesting perspectives I would like to just quickly go over today is that we have worked on probably 80 to 85 percent of all of the railroad restructurings and privatizations around the world. It has been kind of a line of business as Mr. Davidson and Mr. Rose alluded to, and we have exported some of the U.S. railroad freight know-how. We very seldom get asked to help with passenger issues around the world.

In doing that, we spend a great deal of time benchmarking and looking at the U.S. railroads. Quite frankly, they are really the standard, not only the standard for productivity but for rate per ton-mile efficiency and overall contribution to the economy as well.

Some of the material that I prepared for you has been covered by some of the earlier witnesses, so I will skip over it. But I think there are a couple of very important issues. Since Staggers, the input cost that the railroads must pay for fuel and labor, et cetera, has virtually doubled. They are paying twice as much today. Whether you argue that the rate decrease has been 20 percent, 40 percent, or zero percent, there is still about a 100 percentage point gap between where inflation went had there been no productivity or efficiency changes and where the freight rates have gone.

So a great part of that has been a transfer back to the shippers. In fact, we went back and looked at the rates since 1987 and about 80 percent of all of the productivity improvements that were generated by the railroads during the period went either to shippers or to car leasing companies and other suppliers who basically provided some resources.

The comments today about the capital requirements are very important. Some of the biggest failures in railroads around the world are due to the lack of capitalization. We are, along with Canada and Mexico, the only economy in the world where the predominant investment in railroads comes from the private sector. We are the envy of the world. Others have tried it and in a few moments I will cover where I think some of the issues have been, for example, in some of the European railroads, to get at one of the questions that you brought up.

We believe that the railroads need to spend about $6 to $8 billion a year every year on capital investments. This year, at $5 billion, they are about 20 percent short of the mark. We think the short lines, including your constituents, probably need to spend something in the range of $500 million to a billion dollars to get their infrastructure and right-of-way up to a condition that is useful.

I would like to spend a few moments going over the experience in the U.K. Unfortunately, on the day I submitted all the documents to you I received a news article and some information on

some recent events there, but I think it is very telling and something that we should perhaps think about.

In 1992, I was fortunate to participate in a session arranged by an entity called the Ditchley Group, that talked about how privatization of the freight rail system in the U.K. should work. I met at the time with Malcolm Rifkin, the Secretary of Transportation there. Their vision and the vision to this day is that they wanted no bottlenecks, they wanted perfect competition, they wanted every customer to have the ability to have the right to either use the railroad that was the incumbent or any other.

So their initial view was to have 100 or 200 individual origin-destination pairs with big traffic concentrations go to the private sector. One of the things we pointed out to them, that while that level of competition was probably good in some industries and might work in some areas, that once you interjected that level of competition and you have asset lives in the 15 to 25 to 30 year range, we felt very few parties would bid for the concessions or the privatizations to start with; or, two, once the bids came in, it was unlikely that a lot of private companies would invest.

In 1993, we were able, I would say as a minority, to convince them to create only three freight companies, although those three freight companies would face unlimited competition from every shipper, at every point in the system. In 1994 they hired one of the largest investment bankers in the world, not Mr. Valentine's firm, to sell the freight franchises. In an entire year scouring the world, they got no takers, zero, because when a private sector party or investor would look at that situation they could see great opportunities to come in and make maybe short-term profits, but the amount of money you would have to pay to take those lines was excessive.

A year later, a new investment banker who replaced the first one came to us and said: We have still yet to find one party who would invest or even bid on these; would you help us? We were able to find two U.S. companies, Wisconsin Central and Omnitrax, to bid on the British freight franchises. In the end, Wisconsin Central won. It formed a company called EWS. But the only way that it would take those freight railroads was if it could buy all three. So it bought all three for a very low price. To show you, it paid 44 cents for every revenue dollar for those concessions or those freight businesses in that privatization. Mercer managed the privatization of the Mexican railroads. We received between $3.50 and $4.50 for every dollar of revenue in a much less stable and more difficult economy. But the difference was that in Mexico there was a certain degree of exclusivity, but still competition, like the North American system, so the market valued it more.

I think time went on and, just to close here, one of the most telling things was that the vision of having a basically unsubsidized business, competition everywhere, really seems to have failed. Last, on the 3rd of this month the British government, through the Strategic Rail Authority, announced that is is going to put about 4.5 billion U.S. dollars—and this we believe is the first installment—to build freight infrastructure and, oddly enough, to provide direct subsidies to shippers, who should be advantaged by having 2, 3, 4, 5, 10 or 20 carrier opportunities knocking at the door in every case, to try to shift some of the freight back to rail. They have lost sev-

eral points of market share and the system is in relatively poor condition.

This is riding on an infrastructure that, while it is a private corporation, is indirectly subsidized through the subsidies that get paid to the 22 passenger operations, and thus ultimately trickles back to rail traffic.

So I would say just in closing that the whole issue of attracting capital, holding capital, having the private sector provide the capital and the know-how and the infrastructure to run these businesses is a very delicate issue and the regulatory structure dictates very strongly how you do it and how successful you are. We happen to think—and in 20-some instances around the world have suggested—that the North American, not just the United States but the Canadian, model is the preferable way to do that.

Thank you.

[The prepared statement of Mr. Rennicke follows:]

PREPARED STATEMENT OF WILLIAM J. RENNICKE, VICE PRESIDENT, MERCER MANAGEMENT CONSULTING, INC.

I have 30 years of experience consulting to the transportation industry on a wide range of regulatory, economic, litigation, and asset management issues. I specialize in transportation strategic planning, management, marketing, economics, and operations, and have particular expertise in restructuring, organizational redesign, and transactions to improve financial and operating performance of transport operators around the world. I have previously provided expert testimony on the state of the North American rail industry on several occasions before the U.S. and Canadian legislatures. I have also directed the analysis of the competitive effects of transactions before the FTC and DOJ. My individual qualifications and experience in the railroad industry are set forth in Section III. Selected qualifications and experience of Mercer are set forth in Annex B.

My purpose in preparing this statement is to provide the Committee with Mercer's perspective on the state of the railroad industry, including its current financial conditions and transformation since enactment of the Staggers Rail Act of 1980, infrastructure capacity and its impact on rail service, and long-term capital funding needs. My testimony is based on experience working with many of the largest North American railroads as well as their suppliers and customers.

I would like to make four points before the Committee today. Several of these points are updates of testimony Mercer provided the Senate and the House in 1999. In making these points, I will refer to the supporting visual materials in Section II of the document before you.

1. Deregulation has created an efficient and competitive rail industry and has benefited shippers, consumers, and the economy as a whole.

• Since the implementation of the Staggers Act in 1980, U.S. railways have become more competitive, innovative, and efficient.

• Operating ratios for the "Big Four" Class I railroads remain positive; volume has been growing strongly; and rail productivity has improved substantially in the two decades following deregulation.

• However, average revenues per ton-mile for major commodities in which railroads have a high market share were essentially flat or declining in the 1990s.

• Most of the cost savings from deregulation have been shared with customers, suppliers, and other transport companies in the form of rate reductions.

• By increasing the efficiency and reliability of railroads, deregulation has driven down the cost to the economy of moving and managing goods.

2. Despite significant productivity and service improvements made over the past two decades, the industry faces many challenges to continued success.

• Rate declines coupled with unit cost inflation have continued to expand a large "rate-cost" gap for the railroads. Productivity improvements have been key to continued rail viability.

• Rates of productivity improvement now appear to be slowing. Railroads are running out of traditional sources of productivity improvement.

• While facing rate pressure on major bulk commodities, railroads are also being challenged by customers to improve on-time performance for merchandise traffic. Continued service improvements will require higher levels of capital investment.

• For example, most of the Class I railroads are investing in assets and facilities to meet the growing demand for intermodal service, particularly stacktrain (doublestacked rail) service.

• Total Class I rail capital expenditures have risen from $4.5 billion in 1990 to $6.6 billion in 1999—an increase of 49 percent in real (inflation-adjusted) terms. Even larger capital expenditures will be required, however, for capacity expansion and new efficiencies that will enable railroads to cope with the continuing fall in revenue per ton-mile.

• The current economic environment is increasing investor scrutiny of railroad investment. Wall Street suggests that railroads may start looking to the government to assist with infrastructure funding as they get more pressure from shareholders to increase free cash flow.

• Traditional productivity improvement is not rising fast enough to maintain railroad values in financial markets.

3. A stable regulatory environment is required to ensure the health of the industry and the continued flow of private capital.

• The regulatory environment is examining issues surrounding merger policy and access regulation which could have both negative and positive impacts on railroads.

• Wall Street and rail executives emphasize the paramount importance of predictable and growing cash flows. The introduction of regulatory uncertainty can disrupt the stability and growth of rail industry cash flows and correlate directly to stock prices.

• Experience in other countries has shown that so-called "competitive access" regimes can often leave the rail infrastructure owner inequitably at risk for the layers of cost involved in providing competitor access to its network, with consequent impacts on the owner's ability to recover value from its assets.

• The U.S. and Canada are the only countries in which the private sector is primarily responsible for providing infrastructure and equipment. Elsewhere, experiments in regulatory change that move to greater levels of competition have disrupted normal investment cycles and led to increased government intervention and subsidy.

• In the United Kingdom, the government just announced that it would provide an additional 3.4 billion pounds in funding for the rail freight network and would cut access charges in half over the next decade to try to reverse a loss of freight from rail to road (rail's share of the freight transport market has dropped to a new low of 6–7 percent).

• The tragic mistakes made in utility deregulation in California have led to increased financial involvement by the public and investor uncertainty in the sector.

• Uncertainty surrounding the possibility of open access and the impact of new STB merger rules will make it even more difficult for Wall Street to reward additional investment through higher stock prices.

4. Commercial alliances between railroads and third parties will be needed to fuel additional substantive productivity gains for the railroads.

• With historical drivers of productivity improvement becoming tapped out, railroads are likely to turn to extended business partnerships and strategic alliances (short of merger) in order to create new value.

• By "unbundling" the rail value chain, railroads can identify partner companies that may be more efficient providers of distinct services or more appropriate owners of distinct assets.

• Alliances can be formed between a railroad and another railroad; directly between a railroad and a third party (such as a supplier); or between a railroad and an intermediary (such as a financial investor).

• Because direct railroad-to-railroad collaboration can be difficult to execute, indirect collaboration through intermediaries (either traditional or new Internet-based intermediaries) is often easier.

• The largest potential to create value for railroads will likely come from alliances with third parties, including equipment, infrastructure, and facility providers; financial institutions; and technology and e-commerce providers. Other asset intensive industries (e.g., airlines) have already demonstrated the potential for alliances between buyers and suppliers.

• Railroads are now looking to suppliers for innovative ways to ease capital investment levels and increase productivity. To capture these opportunities, suppliers will have to take larger stakes in the rail value chain and develop closer working relationships with railroads.

• Value-creating business alliances will become more critical for railroads and suppliers if the economic slowdown continues.

• Railroads will likely follow the example of successful multi-party alliances in other industries such as aviation, ocean shipping, and technology where traditional functions of the vertically integrated companies are now shared with vendors.

• After their successful turnaround in the 1980s, railroads are once again at a crossroads between a "railway renaissance" and renewed decline.

Senator SMITH. Thank you.

Dr. Zarembski.

STATEMENT OF ALLAN M. ZAREMBSKI, Ph.D., PRESIDENT, ZETA-TECH ASSOCIATES, INC.

Dr. ZAREMBSKI. Thank you, Mr. Chairman. I am pleased to have the opportunity to speak with you today on the subject of infrastructure investment needs for the U.S. railroads. My name is Dr. Allan M. Zarembski and I am President of Zeta-Tech Associates, Inc., a technical consulting and applied technology company specializing in the railway industry. I have over 25 years of professional experience in the area of railroad track engineering.

One of my specific areas of expertise is the degradation and failure of the railroad track structure and its key components. I have been an industry leader in the analysis of track component life and in the development of infrastructure maintenance management tools. I am also one of the team of experts being brought over to the U.K. and elsewhere to solve some of the current problems. Since 1984, Zeta-Tech has developed and implemented maintenance planning models for numerous railroads in the United States, Canada, and overseas.

My purpose today is to discuss two separate studies which we performed which examined the investment needs of the U.S. railroad industry for maintenance of its track infrastructure. Last year, Zeta-Tech undertook a study for the American Short Line and Regional Railroad Association to determine the capital requirements of the approximately 550 short line and regional railroads. These are the railroads represented by the Oregon group which testified earlier.

This study was partially funded by the Federal Railroad Administration. Its focus was to determine the level of capital investment needed by short lines and regional railroads to safely handle the new generation of heavier freight cars. While their current track structure is generally adequate for traditional 263,000-pound railroad cars, it is often inadequate and potentially unsafe of the new generation 286,000-pound cars.

Zeta-Tech performed an analysis that determined where major component renewals might be required on the 50,000 track miles operated by short lines and regional railroads. Our conclusion, which was recently presented in testimony before the House Ground Transportation Subcommittee, was that an investment of $6.9 billion would be required in track and bridges for all short lines to be able to safely handle this new generation 286,000-pound cars.

In a separate study currently being conducted for the Association of American Railroads, Zeta-Tech is determining the infrastructure investment needs for the Class I railroads. This analysis looks at capital investments in track, bridges, and signals, as well as ongoing infrastructure maintenance requirements. Its purpose is to identify the steady state level of spending. This is defined as the

constant level of investment required to maintain the existing fixed plant in its present condition.

For Class I railroads, this represents a track condition that has already been upgraded to handle the new generation 286,000-pound cars on most main and secondary lines. Furthermore, this upgraded level of track condition is significantly better than it had been in the 1970s and the 1980s.

Zeta-Tech utilized its engineering-based analysis models to calculate the Class I railroads' required annual level of capital investment. It also calculated the level of infrastructure maintenance required. Preliminary results indicate that the annual level of spending required by Class I railroads exclusive of short lines and regional railroads is of the order of $8 billion a year for track, bridges, and structures.

Of this, Zeta-Tech calculates the required steady state capital investment portion to be $3.2 billion a year. In addition, the non-capital maintenance expenses was determined to be $4.5 billion, for a total approaching $8 billion a year. Zeta-Tech believes this level of investment is necessary over the long term to maintain the Class I network at its current condition for safe and efficient operations. Any reduction in this level of investment over time will result in a corresponding reduction in the quality of the infrastructure. In the case, both safety and service would suffer.

Furthermore, any investment for expansion of capacity to accommodate additional inter-urban or commuter rail service or more and heavier freight trains are above and beyond this level of spending.

To summarize, the results of recent Zeta-Tech studies showed that the major U.S. Class I railroads must spend on the order of $8 billion annually to maintain their track, bridges, and signals in their current condition. This is independent of any expansion of capacity or introduction of new service. In addition, the short lines and regional railroads need approximately $6.9 billion as a one-time capital upgrade cost to upgrade their physical plant to allow for safe, efficient, and long-term operations with this new generation of railroad equipment now in use on the Class I railroads.

Thank you for the opportunity to testify before the Subcommittee.

[The prepared statement of Dr. Zarembski follows:]

PREPARED STATEMENT OF DR. ALLAN M. ZAREMBSKI, PRESIDENT, ZETA-TECH ASSOCIATES, INC.

Mr. Chairman and Members of the Committee: I am pleased to have the opportunity to speak to you today on the subject of infrastructure investment need for U.S. railroads.

My name is Dr. Allan M. Zarembski and I am president of Zeta-Tech Associates, Inc., a technical consulting and applied technology company specializing in the railway industry. I have over 25 years of professional experience in the railway industry and have expertise in the areas of track and track component behavior and failure, degradation analysis, railway operations, maintenance, and the dynamic interaction between railway vehicles and the track structure. I am the former Manager of Track Research of the Association of American Railroads where I directed the railroad industry's research program in the area of track and structures, as well as former Director Research & Development for several major railroad industry suppliers. I have been president of Zeta-Tech Associates, Inc. since 1984 when I founded the company. I have a Ph.D. and MS in Civil Engineering from Princeton University and a Masters and Bachelor degree in engineering from New York University.

I am registered as a Professional Engineer in five states. I am the author of over 90 technical publications and an additional 130 published articles, all in the area of railroad engineering. I am author of the book *Tracking R&D; Research & Development* and was the recipient of the 1992 Rail Transportation Award of the American Society of Mechanical Engineers. I am a Fellow of the American Society of Mechanical Engineers. My complete CV and list of publications is attached to this testimony.

One of my specific areas of expertise is the degradation and failure of the railroad track structure and its key components. I have been a leader in the analysis of the life of the key railroad track components and in the development of maintenance management and planning tools for the prediction of railroad capital and maintenance needs. Zeta-Tech has developed and implemented maintenance planning models for railroads since the late 1980s and our models have been applied on virtually all of the major U.S. and Canadian railways as well as numerous railways overseas. Our methodology for assigning the costs of maintaining a shared right-of-way to the various users (accepted by the Interstate Commerce Commission in 1995) has been applied extensively in North America and Europe.

My purpose today is to discuss two separate studies which examine the investment needs of the U.S. railroad industry for maintenance of their infrastructure.

I. EXECUTIVE SUMMARY

Last year, Zeta-Tech undertook a study for the American Short Line and Regional Railroad Association (ASLRRA) to determine what was the capital requirements needed by the approximately 550 short line and regional railroads to allow them to operate the new generation heavy axle load railways cars safely and cost-effectively on an ongoing, long term basis. This study was partially funded by the Federal Railroad Administration through a cooperative agreement with the American Short Line and Regional Railroad Association. While the current level of track and structures is generally adequate for traditional railroad cars that weigh up to 263,000 pounds (and have 33 ton axle loads), is it often inadequate and potentially even unsafe for the new generation 286,000 pound cars with 36 ton axle loads. This 9% increase in load can translate into damage to the track structure that is as much as 20% higher than that caused by the "standard" 263,000 pound car. This has led to concerns by the short line and regional railroads about the ability of their current infrastructure to effectively handle this new traffic. These railroads are also concerned about the potential cost of upgrading their fixed plant (track and bridges) to handle cars of this weight on a long term business basis.

Zeta-Tech developed a model that took account of traffic volume and operating speed in determining where major component renewals might be required on the 50,000 track miles operated by short line and regional railroads. Our conclusion, which I presented in testimony before the House Ground Transportation Subcommittee of the Transportation Committee earlier this year, was that an investment of $6.86 billion would be required in track and bridges if all short lines were to be able to safely handle 286,000 lb. cars.

In a separate study that we are currently conducting for the Association of American Railroads, Zeta-Tech is determining the capital investment needs of Class I railroads in the United States.[1] This analysis looks at capital investment in track, bridges, and signals, and also quantifies maintenance of way expenses (the non-capitalized portion of track maintenance). The purpose of the analysis is to identify a "steady state" level of spending. This is defined as the constant level of investment required to maintain the existing fixed plant in its present condition.

For Class I railroads, this represents a track condition that has already been upgraded to handle the new generation 286,000 lb. heavy cars on most main and secondary lines. Furthermore, this upgraded level of track condition is significantly better than it had been in the 1970s and 1980s.

Looking at the distribution of traffic, track condition, and topography, Zeta-Tech utilized its engineering based analysis models to calculate the Class I railroads' required annual level of capital investment. It also calculated the corresponding level of infrastructure maintenance required. Preliminary results indicate that the steady state level of spending required by Class I railroads, exclusive of short lines and regional railroads, is of the order of $8 billion per year for track, bridges and signals. This includes both capital and maintenance expenditures.

[1] This is a regulatory classification, for railroads having more than $258.5 million in revenues in 1999.

II. DETERMINING INVESTMENT NEEDS USING ENGINEERING BASED MODELS

The U.S. Class I railroads operate and maintain more than 168,000 miles of track (this figure includes main and branch lines as well as yard and industry trackage). Short line and regional railroads (regulatory Class II and Class III companies) own and maintain about 50,000 track miles. Total network size is thus about 218,000 miles. All of this track must be maintained in safe operating condition.

The major components of the railroad's infrastructure consist of the track structure itself, which includes the rails, ties, ballast, and special trackwork. Also included are the bridges, signals, and structures. Many of these major components of the infrastructure are subject to wear and tear under railroad operations, specifically the passage of the railway cars over the track. This includes all of the major track components.

On the higher density main and secondary lines, these track components will "wear out" after the passage of millions of tons of train traffic and require replacement. This replacement is performed independently for these track components at the end of each component's useful life.

The lives of the major track components are determined primarily by the volume of traffic, secondarily by factors such as axle loads, operating speed, curvature and grade, and environment. To remain in business, railroads must replace these components at least as fast as they wear out. There is a good indication that railroads are doing this in the safety statistics published by the Federal Railroad Administration. Track related railroad accident rates have been declining for more than ten years. This is due in part to the generally good condition of the fixed plant on the Class I railroads. The fixed plant today is certainly in better condition than it was in the 1970s and 1980s.

The relationship between traffic volume and the mechanisms that determine the life of track components (wear and fatigue for rail, mechanical deterioration and environmental decay for ties, and the same for ballast/surfacing) can be quantified. It is possible to construct models that will calculate the life of track components if information can be provided on traffic volume and other track and traffic characteristics such as speed and axle load, curvature, and the type, age, and condition of track components.

Zeta-Tech has constructed such models, and has successfully applied them for railroads both in the United States and abroad. Since these models calculate the life of track components, they can also be used to determine the quantities of components that must be replaced each year. By application of appropriate unit costs, the size of the annual investment required to maintain a railroad in its present condition may be calculated.

III. CLASS I "STEADY STATE" INFRASTRUCTURE NEEDS

Railroad investments in track components (especially rail and ties) are long-term investments. Surfacing may be required every one to ten years (depending on such factors as climate, volume of traffic, and ballast and subgrade conditions), ties last 10 to 40 years (or more, in dry climates on tracks with low traffic), and rail can last as long as a century on light-density lines.

The long lives of track components make determination of steady state requirements difficult. External factors in the past, such as periods of boom traffic, have produced periods of heavy investment in track assets. Amounts spent in any given year will depend upon: Past investments; Current traffic volumes; Business conditions; Traffic expectation.

Fortunately, when the entire Class I industry is considered as a single network, these cycles tend to even out. Selection of a long enough time series of data enables an analyst to at least approach an estimate of steady state spending. In addition, engineering based component life models allow for a more accurate assessment of specific component lives and corresponding maintenance cycles. Applying these component life models to a large network allows for an accurate analysis of long term capital needs.

As an example of the use of engineering models for determining capital needs, Zeta-Tech developed a Capital Allocation Model. As its name indicates, it is intended to tell a railroad what quantities of components must be replaced each year, on a steady state basis, and the associated capital budget required by the railroad to maintain its infrastructure investment. Such a model makes use of known component life relationships between such key factors as traffic density, track structure, and topography (e.g. curvature). These component life relationships were developed using Zeta-Tech engineering equations and railroad performance data, and they address the key track components of rails, ties, ballast, and special trackwork (turnouts, switches, crossings).

The Capital Allocation Model was originally developed to provide a railroad with a neutral and scientific method of programming track capital renewals for rail, ties, and ballast/surfacing. To do this, the model had to properly account for the physical and environmental characteristics that determined track component degradation. For each of the major component categories (rail, ties, ballast, special trackwork) the model incorporates a relationship between traffic density and environment, that allows the model to predict component life in years and the required date of replacement. In addition to the density/environment relationship, the model also addresses other key track and geographic parameters such as curvature, a very important determinant of rail life.

The model's mechanism for prediction is to take the component lives (in MGT), developed within the model, to obtain an expected life on each segment for each combination of traffic density and curvature. The relationship between rail life and tonnage is linear, since general practice in the rail industry is to express rail life interchangeably in either cumulative tonnage or years. However, annual tonnage on many segments is low enough to produce improbably long lives for rail. At some point, rail must be replaced due to technological obsolescence or environmental decay (rust and corrosion) even if no traffic uses a rail line. The Capital Allocation Model uses an 80-year maximum life for rail, based on Zeta-Tech and industry experience.

For turnouts, a similar relationship is used. However, maximum life of turnouts in main track is set at only 10 years, due to the rapid accumulation of damage from the passage of heavy axle load traffic. For ties and ballast, relationships can be nonlinear, particularly at lower traffic densities. This is due to the substitution of traffic damage for environmental decay as traffic increases. Again, however, a maximum life in years is established, due to the effects of environment on low-tonnage lines.

The model then uses the above component life relationships and costs to predict, for each segment in the database, a life for each of the component categories (rail, ties, ballast/surfacing, and turnouts). Using these lives, and standard unit costs the model produces the following:

- Steady state renewal requirements for each component (in units);
- Steady state capital budget requirements (in $), by component, category; and
- A total capital cost for steady state track component renewal.

For the Association of American Railroads, Zeta-Tech applied its Capital Allocation Model to a database of all Class I railroad track in the United States to determine the capital investment required to maintain the fixed plant in its present condition. The network database used was that of the U.S. Class I railroad industry prepared by the Volpe National Transportation Center at Cambridge, MA. This model consists of more than 8,000 line segments.

Zeta-Tech used engineering model based track component lives for new rail, secondhand or "relay" rail, ties, and ballast/surfacing in modeling required capital investment. Engineering models such as Zeta-Tech's capital expenditure model predict component renewals that *should* be needed, taking into account annual tonnage and track geometry. Actual trackwork performed will vary from year to year, due to factors previously mentioned: traffic volume, the financial health of the industry, and the age distribution of rail and turnouts already in track.

Therefore, statistics on historical renewal rates have been used to calibrate the Zeta-Tech model's predictions.

The product of Zeta-Tech's model application to the database of track segments making up the Class I railroad industry is an estimate of the component replacement requirements necessary to maintain the network in its present condition.

In addition, supplemental analyses were performed to determine the maintenance of way expenses, i.e. the non-capitalized portion of track maintenance, as well as the capital costs associated with bridges, signal systems, and other related infrastructure components. In the case of the maintenance of way operating expenses, these analyses examined the relationship between these expenses and such key parameters as miles of track and ton-miles of traffic carried. As with the capital investment analysis, the focus was on defining the level of outlays necessary to maintain the railroad's infrastructure in the condition it is in today.

This analysis, which is not yet complete, will provide an estimate of the "steady state" infrastructure investment requirements of the Class I railroad network. Preliminary results indicate the following:

- Replacements of rail, ties, ballast, and turnouts, and performance of miscellaneous related activities such as rail grinding and welding, were estimated to require $2.7 billion annually.
- Estimated expenditures on bridges and signals add another $500 million.
- Maintenance of way operating expenses represent an annual cost of approximately $4.5 billion.

• Zeta-Tech estimates that a total approaching $8 billion annually, or about $46,000 per track mile, must be spent annually to maintain Class I railroads in their current condition.

The total does not include funds spent on additional passing sidings, double track, or other measures to increase capacity.

IV. UPGRADING SHORT LINE INFRASTRUCTURE FOR HEAVY AXLE LOADS

In order to take advantage of the economic benefits offered by a new generation of heavy axle load freight cars, the Class I railroads began to upgrade their track structure to handle these cars in the late 1980s and early 1990s. As such, their current track structure, particularly their main lines and major secondary and branch lines which are constructed with heavy rail sections and adequate ties and ballast, are capable of handling these heavy cars.

Unfortunately, the track on Class II and Class III railroads is not in the same condition as Class I track. Many small railroads were organized to operate branch lines no longer needed or wanted by Class I railroads. Often, these lines were in relatively poor condition when the short line began operations.

With about 50,000 miles out of the total US railroad network's 218,000 miles, these short line and regional railroads represent just under one quarter of the US network. Yet their revenues represent less than 10% of the railroad industries gross revenues. As such, they have significantly less revenue per mile to maintain their track, resulting in a track structure that is often well below the standards of the main lines of the major freight railroads. Nevertheless, their physical plant must be capable of handling the heaviest freight cars allowed in interchange on North American railroads.

While the current level of track and structures is generally adequate for traditional railroad cars with 33 ton axle loads, is it often inadequate and potentially even unsafe for the new generation 286,000 pound cars with 36 ton axle loads. The result is a significant potential cost to short lines for upgrading their fixed plant (track and bridges) to handle cars of this weight.

Last year, Zeta-Tech Associates performed an assessment of the capital needs of the short line and regional railways to operate the new generation heavy axle load railways cars. This analysis was sponsored by the American Short Line and Regional Railroad Association and partially funded by the Federal Railroad Administration. The analysis quantified the total investment required of short line and regional railroad industry to ensure *the safe, long-term operation of heavier freight cars*. Many short lines now operate over marginal track, and while it is possible to maintain operations under such conditions, it is neither safe nor economical to operate in this manner over the long term. Therefore, the objective of this analysis was to make an engineering-based estimation of how much trackage meets a defined set of *minimum* criteria for operation of 286K cars and how much does not. Based on that analysis, the amount of component replacements required to bring the whole short line and regional railroad industry to an level of track condition adequate for safe, long term operations of the heavier cars was determined. This, in turn, was then used as the basis for the determination of the capital needs of the short line and regional railroad industry.

Analysis Methodology

The analysis approach used in this study was structured so as to allow for the evaluation of the capabilities of the track and bridge structures to handle the increased car weights for a large data set of short line and regional railroad information. The approach therefore combined engineering analysis and heavy axle load experience to create a series of evaluation steps to determine the adequacy of the track and bridges based on key component size and condition information.

In order to avoid the need to collect data from all 550 railroads, a sampling approach was used to collect in depth information from a representative group of short lines. This data, and the analysis results, was then generalized to the entire short line and regional rail industry. The target sample size for this analysis was 55 railroads and 5,000 route miles, or about 10% of the railroads and 10% of the track mileage in the industry.

In all, complete data was received from a total of 46 railroads, with 4,742 track miles. The 46 railroads in the sample ranged from small switching roads to medium-sized regional railroads distributed throughout the United States. The data collected was representative of the short line industry.

Following assembly of the database of track characteristics and condition, Zeta-Tech engineering models were used to determine the minimum track standards required to handle 286K cars. Using its proprietary engineering models, Zeta-Tech constructed a series of logic matrices in which each category of track component

(rail, ties, ballast, turnouts) was evaluated as to its suitability to carry 286K loads in service. Using these individual component analyses, and their interactions, the combinations of components that were adequate, marginal, or required replacement in order to safely handle the heavier cars was determined as a function of speed and traffic density.

Logic matrices were developed for rails, ties, ballast, and turnouts, at different speed and density ranges. These were then applied to the data base of short line and regional railroad conditions.

Output of the Zeta-Tech analysis was a total amount of component replacement required, in terms of:

- Rail (track miles of rail required)
- Ties (number of required to achieve adequate condition and total mileage of track requiring tie renewals)
- Ballast (total track miles of ballasting required)
- Surfacing (performed whenever ballast is required)
- Turnouts (installed with rail), total number replaced

The quantities of rail, ties, ballast/surfacing, and turnouts required to handle 286K cars were then translated into dollars by use of standard costs for component replacements and other maintenance activities.

A separate analysis was also performed for bridges. Bridges had been identified as a potential problem in several previous heavy axle load studies by Zeta-Tech for Class I railroads. Therefore, they represented an area of potential concern that needed to be addressed. Since bridges are individual and unique, there is really no substitute for a detailed inspection of each. Nevertheless, an attempt was made to estimate the cost of needed bridge upgrading and replacement.

Based on information received from the sampling of short lines and regional railroads, a percentage distribution of bridge condition was developed. Multi-year budgets for bridge maintenance and rehabilitation prepared by a number of short lines were used in developing a cost of bridge repair for bridges in marginal condition. These represent expenditures needed to render bridges capable of handling 286K loads. Bridges in "poor" condition were assumed to require complete replacement, and standard industry costs were used in developing replacement costs. Calculations were made on the basis of the track feet of each type of bridge (wood, steel) on each railroad.

Results

Applying this analysis approach resulted in a summary of the amount of rail, ties, ballast, and turnouts, that have to be replaced to accommodate 286,000 lb. cars. In percentage terms, components needing replacement in the Zeta-Tech sample (and, by extension, the entire short line and regional industry) break down as follows:

- Rail: 22% of track miles must be replaced
- Ties: 43% of track miles require at least some ties
- Ballast/surfacing: 23% of track miles require ballasting/surfacing
- Bridges: 22% require replacement; 27% require upgrading

Using the unit costs for track and bridge upgrades/replacements, a total replacement cost for each category of expenditure was calculated. Table 1 shows the calculated total cost for the sample and its extension to the entire short line and regional rail industry.

Table 1.—Calculated Cost of Upgrading Short Line and Regional Railroads to Handle 286,000-Lb. Cars

Component	Required Investment per Mile	Total Cost (Sample)	Total Cost (Industry)
Rail	$75,106	$356,150,175	$3,754,182,002
Ties	$16,372	$77,636,048	$818,362,236
Ballast/Surfacing	$2,657	$12,597,440	$132,789,720
Turnouts	$7,882	$37,377,454	$393,996,056
Bridges	$35,236	$167,085,889	$1,761,253,773
Total	$137,253	$650,847,006	$6,860,583,787
Track Mileage		4,742	49,985

A comparison of the per mile costs develop in the Zeta-Tech analysis with two recent studies performed by the Kansas and Iowa Departments of Transportation provided additional support for the Zeta-Tech estimates. The Zeta-Tech estimate for track upgrading lies between the Kansas and Iowa estimates.

The Zeta-Tech analysis uses new material costs, since there are simply not enough secondhand track materials to support a track upgrade program of this size (involving railroads with almost 50,000 track miles, and a total expenditure of close to $7 billion).

Thus, Zeta-Tech found a need for $6.8 billion in capital investment to upgrade short line track for the heavier cars now in operation on Class I railroads.

IV. SUMMARY

Analysis of the infrastructure condition of the U.S. railroad industry shows that while the Class I railroads track and structures are adequate for current operations, the smaller short line and regional railroads require significant capital outlays to enable them to operate the new generation of heavy axle load freight cars. Furthermore, the Class I railroads still require major capital outlays simply to maintain their infrastructure in its present condition.

Using its engineering based analysis models, Zeta-Tech calculated the Class I railroads' required annual level of capital investment needed to maintain its infrastructure. It also calculated the corresponding level of infrastructure maintenance (non-capitalized) required.

Preliminary results indicate that the steady state level of spending required by Class I railroads, exclusive of short lines and regional railroads, is of the order of $8 billion per year for track and structures. This is based on a level of track condition that has already been upgraded to handle the new generation heavy cars. and which is significantly better than it had been in the 1970s and 1980s.

Zeta-Tech believes this level of investment is necessary over the long term to maintain the Class I network in its current condition. However, any reduction in this level of investment over time will result in a corresponding reduction in the quality of the infrastructure. In that case both safety and service would suffer.

Furthermore, any investments for expansion of capacity, to accommodate additional interurban or commuter rail service, or just more and heavier freight trains are above and beyond this level of spending. Thus, introduction of even heavier freight cars, such as the 315,000 lb. cars currently used on the mining railroads of Western Australia, will likewise increase the required level of capital outlays for track and structure.

In the case of the short lines and regional railroads, the current level of capital spending is not adequate to maintain their fixed plant. The Zeta-Tech study that established the capital needs for operation of 286,000 lb. cars also revealed that much of the rail on these railroads was old, many of the bridges were of marginal capacity or in poor condition. In general it determined that significant investment would be required even to return the network to a state of good repair capable of handling the current generation of heavy freight equipment now being operated by the Class I railroads.

The results of the Zeta-Tech study showed that short line and regional railroads need a one time investment of approximately $6.86 billion to upgrade their physical plant to allow for safe, effective, and long term operations under the new generation of railroad equipment that has been introduced into the industry.

Of this, more than 50% is for the replacement of rail. This is in line with Class I experience, where rail is always the largest track maintenance cost area. Smaller railroads, with lighter tonnage and more limited resources, have continued to use rail that would be removed from track by larger railroads. Thus, 22% of the rail on these smaller railroads need to be upgraded. Likewise, tie condition on these short lines and regionals is only fair, and the heavier 286,000 lb. cars demand better tie condition, in order to spread the 36 ton axle loads from rail to subgrade. Thus 43% of short line track miles need at least some ties. Likewise 23% of track miles require addition of ballast and surfacing to improve them for heavy axle loads.

There are also many miles of timber trestles on these rail lines. A large percentage will require increased maintenance, and many in poor condition will require replacement, in order to handle heavier cars. Steel bridges will also require significant investment to allow them to carry 286,000 lb. cars on an ongoing basis.

Finally, as freight car weights increase toward 315,000 lbs., as governments implement additional passenger train service, and as short lines are forced to handle heavier cars, railroad infrastructure requirements may be expected to increase even more in the future.

Senator SMITH. Did you say it requires $8 billion a year of investment?

Dr. ZAREMBSKI. That is correct, that is $8 billion a year investment.

Senator SMITH. That is nationwide?

Dr. ZAREMBSKI. That is nationwide for Class I railroads.

Senator SMITH. What is the investment?

Dr. ZAREMBSKI. What does that consist of?

Senator SMITH. No, I would be interested in that also, but what are they currently investing?

Dr. ZAREMBSKI. They are currently investing—last year, the last several years, which have been good years financially from a revenue point of view for the railroads, actually have been investing in that level.

Senator SMITH. At that level.

Dr. ZAREMBSKI. At that level. However, they are starting to look at reducing that level of expenditure now, given the downturn in the economy.

Senator SMITH. The reason for the reduction is to attract the investors that Mr. Valentine says they are losing?

Dr. ZAREMBSKI. Yes. There is a natural tendency to cut infrastructure investment if the marketplace, particularly the capital marketplace, demands a better return and the returns are limited.

Senator SMITH. For the record, the $8 billion, what is it spent on?

Dr. ZAREMBSKI. That $8 billion is spent on the railroad track itself, rails, ties, ballast, turnouts, also the bridges, all of the bridges, the large overhead bridges as well as bridges crossing highways, and also the signal system necessary to operate the trains on a high capacity line.

Senator SMITH. What are the most likely problems to develop on a railroad line if that money is not invested in that infrastructure?

Dr. ZAREMBSKI. The major track components simply wear out or fatigue out. Take rail would be a good example. Rail is one of the really big dollar items on a railroad. It costs approximately $350,000 to $400,000 per mile to put in new rail. Remember, we are talking about 216,000-218,000 miles of railroad track in the United States.

Senator SMITH. Just for the steel?

Dr. ZAREMBSKI. Just for the steel. We are not even talking about the ties or the ballast or anything else.

Senator SMITH. Four-hundred-thousand dollars per mile?

Dr. ZAREMBSKI. Per mile, to replace that one mile of rail. Now, that rail on a high density main line, if it is placed in a sharp curve, may need to be replaced in anywhere from 5 to 10 years. On a straight piece of track, it may last 20 years. On a very light density line, it may last 40, 50, 60 years. But certainly in the high usage locations it can last as few as 3 to 5 years.

Senator SMITH. Is the steel used of a particular grade or quality or it will deteriorate or be inadequate to carry the load?

Dr. ZAREMBSKI. The railroad steel is actually a very high quality steel from a steel practices point of view. In fact, there are two different grades of steel that are used right now by the railroads. There is a very high grade of steel that is used in the very high density lines. Those lines that I indicated that wear out very quickly are actually a very hard steel that are manufactured specifically for the railroads.

Then there is a slightly lower grade, which is still considered from a metallurgical point of view to be a very good quality steel,

but it is a little bit less expensive, it is a little bit lower quality, where you put into those lines where it was going to last 40, 50 years.

Senator SMITH. What makes some steel better than others?

Dr. ZAREMBSKI. Usually the manufacturing process. Usually there is a hardening process that goes along with it. There is an alloy processing. So in addition to the normal manufacturing process, there is usually a second step where you would induction harden the head of the rail, for example, is one process, where you actually physically take the second step and harden the top of the rail.

Senator SMITH. You do that through heat? How do you do the hardening?

Dr. ZAREMBSKI. You will do it by electric induction, introducing heat of some form into the top of the railhead, is one technique.

Senator SMITH. So having a lot of hydroelectric dams is sort of important, too?

Dr. ZAREMBSKI. Yes, it is power intensive.

Senator SMITH. We are going from rails to steel to hydroelectric power.

Dr. ZAREMBSKI. That is correct.

Senator SMITH. I thought I would take you there as an Oregonian.

Thank you very much. Obviously, you know the subject in every detail. Thank you.

Mr. Kaufman.

STATEMENT OF KEVIN D. KAUFMAN, SENIOR VICE PRESIDENT, LOUIS DREYFUS CORPORATION

Mr. KAUFMAN. Thank you, Senator. My name is Kevin Kaufman. I am a Senior Vice President for Louis Dreyfus Corporation, which is a diversified privately held multinational company that is engaged in bulk commodity handling, including grain, oilseeds, frozen concentrated orange juice, OSB, rice, sugar processing, shipping, and petroleum refining and natural gas exploration.

The purpose of me being here I suppose is that the nature of our business makes us totally transportation-dependent and we consider transportation to be a tradeable commodity. Transportation information is a value driver for our business. Rail transportation is extremely important to the goods that we handle. Obviously, the movement of grains, oilseeds, cotton, sugar, and rice, depend on a very healthy railroad industry.

Also, I am a member of the Rail Shipper Transportation Advisory Council, which has the responsibility to advise Congress on the needs of small railroads and small shippers. So there is a natural interest from that responsibility.

I also think we have a responsibility as citizens to support a strong and viable railroad industry simply because it is the backbone of future growth of our economy.

I think, as Professor Higgins said, there is "trouble right here in River City," and the evidence abounds. Jim Valentine, I think very well described the problem in specific economic terms. The industry has problems. Contrary to what the other Senator said, I think if you read railroad financials and consider what has happened to

them in the last 10 years you would as an investor, not be attracted, and their stock price reflects that.

Nearly all parties in this debate agree that if nothing is done under the current circumstances there probably will be a continual erosion of railroad economic health, which will be to the detriment of our economy and probably our future quality of life. Now, at the same time, as a student of management and involved with management, I would also argue that there is some evidence that there are some mistakes made by the railroads in certain decisions and choices that they made. However, I do not believe that the railroad management wakes up every morning and asks itself, what can I do in order to lose 50 percent of my company's value today, or also I do not think they wake up and say, what can I do today to make my customer miserable?

I would argue always that our economic behavior is rational and based upon the environment in which it operates. So I point that the problem here is not the "P" of "pool" like in River City, but it is actually government's inconsistent policies with regard to transportation, especially the failure by government to focus on having a holistic intermodal transportation policy.

I think there has been too much focus on changing regulation and attacking the STB. I consider it to be counterproductive because it is missing the point. You know, the STB is the administrator of policy and frequently the message deliverer. They tend to be excoriated for delivering the message and the fact that they have to administer policy that has been directed to them by Congress.

I think Chairman Morgan and the STB have been very effective and tireless in trying to be focused public servants and trying to make a silk purse out of a underfunded and underappreciated sow's ear, because they are basically charged with administering a kind of a kachi-bachi transportation policy. Frankly, the policy they administer frequently is inconsistent legislatively and is inconsistent with politics.

You know, if we look at this, the system right now is organized to treat each mode separately. Appropriations are separate. Everything is focused separately on each mode of transportation. Because there is no intermodal national transportation policy, there are frequently economic signals that are sent through that are not really what the public probably wants to have accomplished.

The example of this is modal subsidies that create economic distortions. You know, at least 21 percent of current railroad returns are derived directly from intermodal moves that compete directly with trucks. Trucks do not pay the full cost of their use of government-funded infrastructure. That is clear. Railroads, on the other hand, must cover all their capital costs.

When a truck is parked, it pays zero infrastructure costs. To compete, railroads must by definition compete on a price basis with those subsidized trucks. Therefore, trucks have a cost per unit advantage. The result may be congestion, increasing congestion on the highways by ever-larger trucks, especially around our major metropolitan centers, which then leads of course to a natural call for more funding to solve the problem of why we have highway congestion around our cities.

But the fact is that rail transportation is more efficient and environmentally friendly. So why do we make public policy that incentivizes congestion and pollution at the expense of efficiency? Why is there a fuel surcharge that goes into the highway trust fund that the railroads pay?

The result is that railroads are denied the ability to access a large piece of the economic pie. So how do they find economic viability? They find it through consolidation and also through cutting back service and capitalization. I frankly think mergers are a bad idea, but it is a natural effect of what they need to do in order to survive economically.

Prescription? I think we should have an intermodal transportation policy that includes focused, across-the-board infrastructure investment. I think we need to increase truck user fees. I think we need to rescind the fuel surcharge.

Railroads should also—and this is something that may not be within the jurisdiction of your Subcommittee—do themselves a favor if they would diversify their boards, which would lead to more accountability of their management. Many times I ask myself why railroad boards do not have shipper representatives on the boards that might perhaps help them to hear another message that is being delivered to them.

I would like to thank you for the opportunity to testify.

[The prepared statement of Mr. Kaufman follows:]

PREPARED STATEMENT OF KEVIN D. KAUFMAN, SENIOR VICE PRESIDENT, LOUIS DREYFUS CORPORATION

Chairman Smith and distinguished Members of the Committee: My name is Kevin Kaufman. I am a Senior Vice President of Louis Dreyfus Corporation ("LDC"), a domestic and international marketer of grain, grain products, and other commodities that move by rail, barge, truck and ocean carriers. Since 1996, I have served as a member of the Railroad-Shipper Transportation Advisory Council ("RSTAC"), which was created by the ICC Termination Act ("ICCTA") to focus on concerns of small railroads and small shippers.

I very much appreciate the opportunity to appear and testify today and to present my views on the importance of a financially secure rail industry, capable of future growth to meet the needs of an expanding U.S. economy.

LDC is totally transportation-dependent. We treat transportation as a valuable commodity whose understanding is one of the key value-drivers for our company. Not only do we incorporate transportation into all of our major trading decisions, but the value of our physical assets are also transportation-dependent. We presently operate major export grain terminals at Portland, OR, Seattle, WA, the Texas Gulf, Port Cartier, Quebec, and throughout Western Canada, as well as a large rice milling operation in Southeastern Missouri. In addition, to enhance our shipping flexibility, our company operates a substantial fleet of our own rail cars.

As you know, the merger-related rail service breakdowns that began in 1997 induced a critical review of railroad performance from a number of interested parties, including Congress, the Surface Transportation Board ("STB"), and Wall Street. Few have been more critical than I of the failure of railroad management to properly value their acquisitions and to anticipate the real costs of operationally consolidating the merging properties.

However, having said that, I think that current dialogue must focus on the more important strategic question of whether the industry is capable of providing the transportation capacity and management required to sustain a growing economy. My purpose here today is to argue that in spite of the general search for regulatory scapegoats, the real issue is a failure to enact consistent, intermodal public policy that provides an economic environment in which the rail industry can compete.

Recession is a mask for service performance. And, therefore, it would be a mistake to view the apparent lessening of current service problems or even the attainment of some service improvements as evidence of fundamental, improved structural changes within the railroad industry. While management continues to squeeze im-

provements out of their organizations, I do not see any of the major changes to their economic operating environment as sufficient to sustain long-term industry financial health. Yet the U.S. economy will again begin to grow and the demand for commercial transportation of goods and services will outstrip railroad industry infrastructure carrying capacity. In fact, in my discussions with the various interested parties in the issue at hand, while their prescriptions vary widely, most agree that failure to address policy issues will result in a deterioration of the financial health of the rail industry and have a destructive impact upon the U.S. economy. In my opinion, the more important point is that, to a large extent, past railroad management behavior was at least in part a reaction to the economic signals that government policy was communicating.

The Staggers Act relieved the railroads of much of the down-side of regulatory burden that made it difficult for them to maximize the opportunities inherent in their franchises. The ability to price differentially and to dispose of under-performing infrastructure allowed them to significantly reduce their costs per unit. At the same time, double-stacking technology and the ability to increase corridor density made it possible for railroads to convert under-utilized capacity to become effective intermodal competitors. The expectation was that not only would intermodal provide the volume necessary to consume under-utilized capacity, but it would actually increase the railroad market "pie," thereby increasing earnings. Unfortunately, while intermodal did provide the additional volume allowing overall railroad cost per unit to decline (cross-subsidization), their need to price their services competitively with trucks arguably has resulted in earnings that failed to fully cover the costs of operation plus the significant required investment.

The railroad industry regards itself as hampered in attempting to achieve its goals by the remaining vestiges of regulation and by long-standing public concepts of the role of common carriers. This debate has partially manifested itself through the introduction of several pieces of legislation over the past few years. Clearly, it is economically inefficient and counter-productive if, on the one hand, an industry sometimes behaves as if it has the obligation to supply equal service for all consumers, no matter their relative economic cost, and, on the other, is required to fully pay for the investment and incremental operational cost. There is a significant cost when the politics of public policy fail to take into account the economic impact of those policies. The point is that the political environment often influences uneconomic behavior.

Therefore, I am here to try to persuade you to consider solutions that address the inequities of current public policy. I believe that it is long-term counterproductive for public policy to appropriate subsidies that essentially disincent the investment in the railroad industry. Railroads cannot price their services at levels that provide a sufficient return to attract the necessary capital to sustain their business where government subsidizes a competing mode.

Although rail service has inherent advantages that have been developed partially and await yet greater development, the rail industry, as you know, labors under one big disadvantage; its principal competitor, the trucking industry, is the beneficiary of various types of government subsidies. In 2000, federal highway spending alone came to $27.7 billion, even though the interstate highway system ostensibly is complete. To that, add billions more spent by states. The inland waterways also are maintained at taxpayer expense. Railroads, on the other hand, currently must meet their capital requirements from privately-generated funds, notwithstanding the one recent infrastructure loan program that still awaits implementation. In addition, railroads must continue to pay a "budget reduction" fuel surcharge that is paid into the highway trust fund, thus further benefiting their competition.

The fact is that modal subsidies provide a significant pricing advantage. The simple illustration is that "a parked truck costs nothing" while the cost of rail infrastructure maintenance and depreciation never sleeps. And if 21% of railroad revenues are derived from intermodal traffic which directly competes with trucks, then how does one argue that modal subsidies do not impact pricing? (And, at the same time, how can you argue that there is no competition?) Modal subsidies do affect railroad revenues thereby affecting their competitive ability to attract capital. Just ask Wall Street what would happen to railroad stock prices if trucker user fees were increased.

In addition, what are the resulting externalities of these subsidies? Is not rail a relatively economically and environmentally more efficient mover of goods and services over long distances? What would happen if these subsidies were changed allowing railroads to be more competitive? Would not there be less trucks on the roads around our major metropolitan centers? Would there not be additional private capital to spend on the antiquated infrastructures surrounding our cities, thus pro-

viding the means to get goods more effectively from and too these major consuming and delivery points?

The fact is that we cannot have it both ways. We cannot expect to have a viable rail transportation system if public policy hampers its ability to increase its revenue base while, simultaneously, requiring it to be solely responsible for the investment in its infrastructure. Therefore, I view our country and our government as approaching a transportation policy cross-roads: we need to choose between continuing the present policy of private generation of funds for necessary railroad infrastructure improvements with myopic modal subsidization, and inconsistent, semi-regulatory transportation policy, or develop a broad approach that changes the current regulatory and modal-specific environment to a broad, inter-modal policy that may include greater public participation in focused, infrastructure funding. The choice is significant because the consequences are enormous.

For example, increasingly, in order to compete, the railroads continue to consolidate their respective operations so they only operate a route structure that fits into their highest-yield operating model. Railroads are best at operating single-commodity "super-highway" corridors at high capacity with minimum origins and destinations. As soon as multiple origins, multiple commodities and multiple routes are added, there is an exponential increase in the operating complexity and iterations necessary to provide such service. Infinitely worse is the addition of low volume services that increase the costs of operation. Therefore, by necessity, they are becoming selective, taking steps—big steps—in the direction of abandoning the old common carrier concept that the franchise holder must take the good with the bad, serve the profitable and unprofitable, and respond to a superior public interest.

The fact is that the railroad industry is simply reacting to the economic reality of the status quo. In order for them to generate privately the funds that they need to enhance their infrastructure and satisfy their investors, they will have to continue taking steps that may be unpleasant for many of their customers and, perhaps, for the political representatives of those customers.

In the area of bulk grain transportation, we are in the midst of a trend toward large, high volume shuttle trains that operate with continuous power between contractually designated destinations and origins where the loaders and unloaders have agreed to expedite origin and destination handling of the train in return for rate concessions. These shuttle trains enable the railroads to offer lower rates where the loaders and unloaders are able to make these high speed loading and unloading commitments, commitments that require substantial equipment and track investments that not all rail customers are willing or able to make.

In this type of a structure, the railroad achieves its goal of handling what it perceives to be its market needs over a minimal route network making the most efficient use of locomotives, cars, and crews. Another benefit realized by the railroad is the concentration on infrastructure funding where traffic densities are likely to be highest. The result is increasing investment into those lines consistently carrying the volume and a reduction in the investment in those peripheral tracks that no longer sustain a sufficient return to justify the investment. The obvious result is consolidation. And this consolidation occurs not only in the track infrastructure but also for the customers.

The company that formerly loaded the grain on the lighter density lines may, and probably will, lose business to the high-speed elevator that participates in the shuttle program. That high speed elevator, in order to attract the large volumes of grain necessary to meet the shuttle train volumes, must offer a better price to farmers to induce them to sell there, rather than someplace else. In return for that better price, the farmers are buying or hiring trucks, bypassing smaller country elevators and short line railroads and going directly to the new, high-speed terminals.

This is but one example of the rational decisions that are made because of current public policy. There are, as I see it, enough segments of society that are impacted by these events in the rail industry to suggest that there is a legitimate reason for across-the-board transportation policy to be considered, rather than just a rail industry focus. There is no question that there are serious infrastructure issues facing all transportation modes. We read almost everyday about infrastructure inadequacies in our airports, air traffic control, river systems, highways, ports, and railroads. In the past, these issues have been addressed separately and competitively without regard to having a national, intermodal transportation policy. The situation today is but one example of the unintended consequences of addressing the issue en micro.

To me, the exercise of focusing on one without including all of the others results in the huge risk of "fixing" one while making the whole system worse. In spite of arguments to the contrary, there is modal competition and there is huge intermodal impact in the use and investment in transportation infrastructure. And the inarguable fact is that transportation infrastructure is so costly as to be almost outside

the reach of the private sector to fully properly maintain and sustain adequate investment. Therefore, as part of your look at transportation policy, the role of government's long-term investment should also be considered.

Senator SMITH. Thank you very much.

Dr. Levine.

STATEMENT OF HARVEY A. LEVINE, Ph.D., INDEPENDENT TRANSPORTATION ECONOMIST

Dr. LEVINE. Good morning, Mr. Chairman. In that my views are somewhat contrary to some of the other members of the panel, I appreciate the opportunity to have the last word.

Over the past 4 years, I have been an independent transportation economist and consultant. Today my observations are strictly my own, based on what I believe to be in the public interest. These observations are detailed in the written report I provided to the Subcommittee.

In a nutshell, I find the current state of freight railroading to be troublesome and full of unfulfilled promises. This is not to say that there are not positive aspects to the system. The U.S. railroad infrastructure is a mature national resource which has been rationalized since the early 1900s, has achieved commendable levels of productivity in recent years, and has passed some of this productivity on to its customers in its competitive markets in the form of constrained pricing.

But this is only part of the story. The industry continues to lose market share to motor carriers, has consolidated into four dominant carriers, has used an ineffective regulatory system to exercise its market power, and has created an ever-widening chasm between itself and its rail-dependent customers.

Over the past 6 years, four financially viable railroads—and I am talking about four railroads that were financially viable in the mid-1990s—spent over $18 billion to purchase other Class I railroads on the theory that projected added revenues and earnings of about $2 billion annually would make them more than revenue adequate. Obviously, something is amiss. It seems to me that the concerns raised by railroads and some Wall Street analysts would be mitigated if railroads performed more to the satisfaction of customers. They have not done an adequate job of this, to some extent because existing public policy prevents them having to do so.

I offer three suggestions for change. First, eliminate the annual STB determination of revenue adequacy. Stripped of its trappings, revenue need is synonymous with capital attractiveness. Railroads compete for capital in open markets where financial reports to shareholders are the basis for investor decisions. The record abounds with examples of railroads informing their shareholders that they have made record profits while earning their cost of capital and expect even rosier futures—and you have to go back to the mid-1990s for this—when at the same time the regulatory agency has declared them to be revenue inadequate.

The STB's calculation is extremely limited, often misunderstood, and serves no useful purpose. When regulatory and national transportation policy decisions are based on improper assessments of railroads' capital needs, the public in general and railroad-dependent customers in particular are not well served.

Second, strong consideration should be given to adopting a final offer arbitration process as employed in Canada. The Staggers Rail Act requires fair and expeditious regulatory decisions, but implementation of a fair standard is doubtful and there is nothing expeditious about regulatory decisions. Some proceedings have taken more than 10 years to resolve, are extremely costly, and are intimidating to shippers. Adopting a final offer arbitration process would allow for a quick resolution of disputes at a reasonable cost for the parties, ensure that arbitrated decisions occur within a practical zone of analysis, and encourage a negotiated railroad-customer agreement.

Third, public policy should not preclude the enactment of provisions which provide for increased competition to the railroad infrastructure. While prudent railroad cost control is admirable, public policy can best be served if railroads increase their traffic volume. Such growth benefits society in regard to the environment, fuel conservation, highway congestion, and low-cost transportation. Adequate railroad competition could provide the needed responsiveness to rail-dependent shippers and help to grow the traffic.

The very same public that provided railroads with exclusive rights-of-way and limited competition has the right to adjust the level of competition when conditions demand it. In fact, the encouragement of railroad competition is consistent with the goals of the Staggers Rail Act of 1980: to ensure effective competition among rail carriers, to reduce regulatory barriers to entry into and exit from the industry, and to avoid undue concentrations of market power.

In conclusion, staying the present course will not promote a financially viable railroad industry that meets the needs of its customers. Open capital markets and competition are the engines that drive our free enterprise system. Change is in order for our nation's railroads, and I hope I have given you some ideas for that change.

Thank you for your time and I will answer any questions gladly.

[The prepared statement of Dr. Levine follows:]

PREPARED STATEMENT OF DR. HARVEY A. LEVINE, PH.D., INDEPENDENT TRANSPORTATION ECONOMIST

Mr. Chairman and Members of the Subcommittee, I appreciate this opportunity to present my perspective on issues concerning the freight railroad industry relative to the industry's financial performance, current posture, and future needs. My experience spans over 35 years in the field of transportation in general and railroad economics in particular, including employment with: railroad customers (shippers), the New York Central Railroad, the U.S. Department of Transportation (DOT), several transportation consulting companies, the Interstate Commerce Commission (ICC), and the railroad industry's major trade association, where for 18 years, I was the Vice President of the Economics & Finance Department. I also have taught transportation economics and other business subjects at several universities, written a book on national transportation policy, and co-authored a book on local and regional railroads. Over the past four years, I have provided consultation to a multitude of railroad, shipper, and other organizations involved in, or affected by, freight railroads. As an independent transportation economist and consultant, the views that I present in this testimony are strictly my own, based on what I believe to be the public interest.

No matter what my past professional position, I have always believed that a financially viable, freight-railroad industry is in the public interest. After all, railroads are conduits that serve the function of providing time and place (location) utility to our nation's consumers. Adequately staffed and capitalized railroads are needed for such an important role, but at the same time, it is through the satisfaction of customer needs that railroads have the opportunity to become financially viable.

Thus, the achievement of railroad financial adequacy and the satisfaction of rail customer needs are two sides of the same coin. And it is with this concept in mind, that I offer this testimony.

The current state of affairs in freight railroading is controversial, highly contentious, and somewhat beyond the comprehension of many people, but it retains the one constant that has characterized freight railroads since before World War II—a perceived financial need, commonly referenced as a capital shortfall. Railroads, in their presentations to the ICC, Surface Transportation Board (STB), and public policy makers, describe themselves as being burdened with "woefully inadequate earnings," even if individual carriers were financially stable, and no matter what the railroads earned. The industry gained support for this view from the ICC beginning in 1978, when the first annual revenue-adequacy determination was made. This determination has been continued by the STB since 1996. During more recent years, the railroads' mantra of "woefully inadequate earnings" has been replaced by "revenue inadequacy." In fact, of the four dominant railroads that currently control the overwhelming portion of railroad traffic, only the Norfolk Southern (NS) has been declared by the regulatory agency to be revenue adequate in more than a single year. The Burlington Northern (BN) was deemed to be revenue adequate in 1989 and the Union Pacific (UP) in 1995. CSX Transportation has never been found to be revenue adequate. However, what CSX's president, as well as other railroad executives, has stated in his company's annual report to shareholders is another matter.

Incredibly, the alleged state of railroad revenue inadequacy prevailed during the early and mid-1990s, even when railroads enjoyed record earnings and the president of the industry's major trade association—the Association of American Railroads (AAR)—touted the "Second Golden Age of Railroading." Magazine articles abounded with such positive headlines as "Back on the Right Track," and "Back at Full Throttle." Consider the financial strength at the time of the current four dominant railroads. In 1994, the BN earned an impressive 16.9% rate of return on equity (ROE)—that is, net profit after fixed charges and incomes taxes are paid as a percent of the value of the owners' investment. Furthermore, the BN had the financial capacity to outbid the UP and acquire the Atchison Topeka & Santa Railroad (ATSF) in 1995 for $4.1 billion. Similarly, in 1995, the UP earned a 16.7% ROE and completed its purchase of the Southern Pacific Railroad (SP) in the following year for about $4.0 billion. In 1997, the CSX and NS railroads realized ROEs of 12.4% and 12.6% respectively, and consummated their joint purchase of Conrail for over $10 billion in 1999. And yet, with the exception of the NS in 1997, these railroads were declared by the STB to be revenue inadequate during those years. At the same time, the four railroads expended billions of dollars in employee buyouts, distributed expected dividends to their shareholders, and paid sizeable bonuses to their executives.

What is especially troublesome about the current state of alleged railroad revenue inadequacy is that it comes when the industry has been merged into four dominant carriers based largely on the theory that such consolidation was necessary to achieve revenue adequacy. As shown below, the number of Class I railroads has shrunk from 109 in 1960, to 36 in 1980 and to seven in 1999—with two of these carriers being owned by the Canadian National and Canadian Pacific railroads. Furthermore, the concentration of power has greatly increased among the four largest railroads, rising from 25% of Class I railroad traffic in 1960, to 43% in 1980, and an astonishingly 95% in 1999.[1] These four dominant railroads—two each in the East and West—control more than the traffic they handle. They also have significant control over traffic on both local (short line) and regional railroads and either control or heavily influence: industry-wide procedures in regard to operating—including, interline—rules; accounting practices; car-repair billing; technological research and development; and, policy development and strategy.

Year	No. of Class I Railroads	Percent of Traffic Carried By Four Largest Railroads
1960	109	25
1980	36	43
1999	7	95

[1] Association of American Railroads, *Analysis of Class I Railroads* (annual). Interstate Commerce Commission, *Statistics of Railways in the United States For the Year 1960*.

What is additionally astonishing about the four "mega-railroads" is that they were created based on projections of huge financial benefits. For example, the BN's purchase of the ATSF came when the former was already making record profits, and when the BN projected that the purchase would save the railroad $450 million annually in operating expenses and add another $110 million in operating income. Similarly, the UP was earning record profits in 1996 when it purchased the SP based on an operating income benefit of $820 million by the year 2001. And the CSX and NS purchase of Conrail in 1999 came at a time when those railroads were earning moderate profits, and when they projected significant benefits mainly in the form of cost reduction and traffic diversion from motor carriage.

No matter what it is called—that is, "woefully inadequate earnings," "revenue inadequacy," or even "sub-par financial performance," where railroads can demonstrate a capital need, they have support, if not an outright propensity, for acceptance of their industry-wide, policy positions. The answer to the question of "How can we help the poor railroads?" may come in the form of: tax relief; low-interest loans; outright grants; approval of mergers and acquisitions; rate increases to rail-dependent customers; changes in demurrage provisions; and, the warding off of otherwise desirable market competition. Consequently, with railroads still being cast as revenue inadequate by the STB, the environment exists for more of the same—that is, for more railroad behavior based on alleged capital need; more explanations for inadequate service and increased freight rates; and an even greater concentration of power. This is not to say that in some years, railroads don't have a capital need, and it is not to say that the two railroads in the East are not currently earning sub-par profits. However, the permanent state of alleged railroad financial depravity is a frightening prospect for rail-dependent shippers and should be to the public at large.

The latest rationale of the railroads' alleged revenue inadequacy is that competition forced them to pass on their massive productivity gains to their customers, proving that railroad competition is more than adequate. The productivity gains have been attributed to deregulation as enacted by the Staggers Rail Act of 1980, as is seemingly all good things that have happened to railroads since that time. In turn, the combination of continued capital need and competitive markets means that the railroads cannot afford any more competition. After all, proffer the railroads, new competitors would "skim the cream" off the top and leave the incumbents with little more than the lower-margin, more competitive traffic. This is a picture which on the surface appears to be plausible, for to refute it requires an unusually deep understanding of railroad financial data, statistical methodologies, cause-and-effect relationships, rail-customer service levels, and railroad behavior in general. In essence, railroad issues relating to national transportation policy are often embodied in a mass of statistical information and economic theory.

My perspective of the state of the freight railroad industry is different from that being portrayed by the industry itself. As a reflection of my views, I present three observations below, including summary statements of support and recommendations, followed by a more detailed discussion leading to each of the three observations.

1. Railroad data presented in annual reports to shareholders, and supplemental data to the Securities & Exchange Commission (SEC), is often in conflict with industry-wide data distributed to and by the STB and especially that agency's annual determination of railroad revenue adequacy.

- Railroad revenue need is synonymous with capital attractiveness.
- Railroads compete for capital in open capital markets against companies who provide annual financial reports to their shareholders and supplemental financial information to the SEC.
- Potential investors rely upon the financial documents prepared and provided by the owners of businesses in consideration of where and when to invest their funds.
- Consequently, where railroad capital attractiveness is at issue, annual reports to shareholders and supplemental data to the SEC should be used as the basis for analysis.
- At the same time, the link between the STB's annual determination of railroad revenue adequacy and capital attractiveness is at best elusive and in all probability, non-existent.
- The annual STB revenue-adequacy determination should be terminated and railroad financial data submitted to the Board should be consistent with the information presented to shareholders and the SEC.
- Finally, railroad revenue need should be thought of in terms of: (1) individual railroads as opposed to an industry-wide average, (2) as a fluid, and thus temporal state of being, and (3) as a prospective concept.

Railroads are no different than other for-profit companies in that they must pay their operating expenses, meet the interest obligation on their funded debt, and have the ability to attract needed equity capital if they are to provide adequate service to their customers. By earning any level of net profit, operating expenses and interest charges are paid because such profit is calculated after those payments and income taxes are subtracted from revenue. Thus, stripped of its trappings, the issue in regard to railroad financial viability is that of capital attractiveness to providers of equity. This attractiveness is enhanced by a variety of factors including the most recent returns to the providers of equity capital—measured by the ROE—a strong balance sheet, significant cash flow relative to capital expenditures, and sound management policies and procedures. Many of these considerations are discussed in the railroad's annual reports to their shareholders and other information provided to the SEC. In fact, the "President's Message" sets the tone for the annual report to shareholders. But the overall message, analysis of financial performance, and even thoughts about the future, are not revealed in the annual reports to the STB. They are also not reflected in the STB's annual revenue-adequacy determination. This disparity can lead to contradictory views by the railroad itself, and between the railroad and the STB. Consider an especially egregious case involving the UP in 1996.

By any reasonable standard, 1996 was a great year for the UP and its parent company, Union Pacific Corporation (UPC). As stated by the Chairman and Chief Executive Officer of UPC: The Union Pacific merger, the spin-off of the Resources company and the full integration of the Chicago and North Western acquisition, made 1996 a banner year that created significant value for shareholders and positioned this company for the future as a highly competitive, premier transportation provider. Through all of these strategic achievements, we kept our eye on the numbers, reporting record financial results. Our income from continuing operations was $733 million compared to $619 million in 1995, a gain of 18 percent.[2]

UPC earned an ROE of 12.4% in 1996, largely sparked by the railroad's ROE of 16.6%. To UPC and the UP, these profits were more than adequate. They not only exceeded the corporate ROE threshold that triggered executive bonuses and the long-term compensation package (stock grants and options), they also exceeded the maximum-payout level to those executives. Consequently, aside from significant amounts of stock distributions, the average bonus given to 138 UPC executives in 1996 amounted to a record $112,000.[3] Furthermore, when in 1997 UPC earnings were below the executive-bonus threshold, the corporation still awarded $7.1 million to 154 executives because "a balance was available in the reserve fund from prior years."[4] In essence, surplus profits from 1996 were used to further reward executives in 1997. At the same time, the STB found the railroad to be revenue inadequate in 1996. Rhetorically speaking, who would potential equity investors be most likely to believe?—the company itself or the STB, which based its conclusion on a single, statistical and highly controversial calculation? The unfortunate result of the STB's declaration of revenue inadequacy is not only that it could be applied in regulatory proceedings involving maximum rates, but that the UP could adopt it as support for its positions of public policy.

In general, the financial health of individual railroads is far better than that projected by the revenue-adequacy determination. Consider the case of the four dominant railroads in 1999. While they were all declared to be revenue inadequate, the BNSF earned a healthy 13.9% ROE and the UP a moderate 9.5% ROE. While these figures may have been below the STB's cost-of-capital calculation, did they really deter either railroad from attracting needed capital? Where is the evidence of such capital shortfalls? With interest rates around seven percent, the equity investors in these two railroads were rewarded for their risk taking, and both railroads spoke of even more promising returns in the future—that is, in their annual reports to shareholders and in their presentations to Wall Street security analysts. Furthermore, in his oral presentation to the STB regarding the BNSF's proposed merger with the Canadian National system, the president of the BNSF boasted of his railroad being into its strongest financial position in history. The reality is, that the record abounds with examples of railroad executives calling attention to their strong financial results in the annual reports to shareholders, while citing their STB-determined revenue inadequacy in matters of public policy.

In essence, the STB's annual determination of railroad revenue adequacy serves no useful purpose and can be highly misleading. A railroad cost of capital can be estimated without an annual revenue-adequacy determination. At the same time,

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[2] Union Pacific Corporation, *1996 Annual Report*, "Letter to Our Shareholders," p. 1.

[3] Union Pacific Corporation, *Proxy Statement* to the Securities & Exchange Commission, 1996, from DGAR database on SEC's Web Site.

[4] *Ibid*, 1997, p. 21.

potential equity investors can employ the more credible railroad annual reports to shareholders, and if desired, supplemental financial reports to the SEC, to help them in their determinations as to where they funds should be invested. Annual reports to shareholders represent the "real world;" the same cannot be said for the STB determination.

2. Railroad deregulation as enacted by the Staggers Rail Act of 1980 has been given far too much credit for both the significant gains in railroad productivity and the ensuing constraints on freight rates, thereby inappropriately inferring that railroad market competition is ubiquitous.

• With the exception of liberalized procedures for eliminating light-density branch lines, there is no direct link between the Staggers Rail Act and increases in railroad productivity.

• Aside from a host of other factors, railroad productivity gains have emanated largely from favorable union contracts (supported by Presidential Emergency Boards) resulting in the elimination of many employees.

• The measure of freight-revenue-per-ton-mile is a limited surrogate for actual freight rates, and its use by the railroad industry and the STB results in improper conclusions regarding both freight rates and the impact of deregulation.

• Railroad productivity gains have been shared directly by shippers in competitive markets and the railroads themselves, but no matter how the benefits have been distributed, rail-dependent customers exist and are still faced with the lack of carrier choice.

• The existence of rail-dependent customers is a reality that should not be ignored by the STB—whose purpose is, in fact, to address the needs of such shippers—or by national transportation policy.

• In addition to providing adequate carrier choices for rail-dependent customers, an appropriate remedy for their complaints appears to be the "Final Offer Arbitration" (FOA) process available to railroad customers in Canada.

• Professional arbitrators can replace the lengthy and costly STB maximum-rate procedures and as in Canada, complete the process within 60 days.

There is no disputing that since the Staggers Act was passed in 1980, the railroad industry has become more productive, and has passed on a portion of this productivity to some of its customers in the form of constrained pricing. But with the exception of the more liberal provisions to eliminate light-density branch lines, there is no evidence that links the Staggers Act with increased railroad productivity. The major contribution of deregulation was to free the railroads from the unnecessary cost of regulatory proceedings involving competitive traffic. Money was certainly saved in these instances, but this regulatory efficiency had nothing to do with reducing the bloated labor force, eliminating duplicate facilities, and implementing cost-saving procedures. Those achievements were due to a combination of factors including: a heightened sense of need on the part of management; the introduction of new technology, economies of scale and density associated with mergers and acquisitions, and especially, favorably-negotiated labor contracts (including billions of dollars worth of buyouts). In fact, as shown below, the number of employees working for Class I railroads has been in a long-term decline since its peak of 2.1 million in 1916.

Year	No. of Class I Employees [5] [Thousand]
1916	2,148
1929	1,661
1955	1,015
1970	566
1980	458
1999	178

[5] Association of American Railroads, Railroad Facts and Railroad Ten-Year Trends. Interstate Commerce Commission, Railroad Transportation, A Statistical Record, 1911–1951, and Statistics of Railways in the United States For The Year Ended 1929, 1955, 1970.

Mis-casting the Staggers Act as the cause of increased railroad productivity and constrained pricing inappropriately supports a continuation of present market conditions; and yet, this is exactly what the railroad industry and the STB do. They use an industry-wide, unaudited, inflation-adjusted, and deficient surrogate for railroad freight rates—more specifically, freight revenue-per-ton-mile—to proffer that railroad rates have declined since 1980, and then automatically tie those alleged de-

creases to the enactment of the Staggers Act in that year. What is not mentioned is that the rate surrogate had been declining before 1980, and its relationship to actual freight rates is at best, dubious. Furthermore, actual rate surveys undertaken by the AAR in 1980 provide evidence as to the inappropriateness of the surrogate measure.

The reliance on the average freight-revenue-per-ton-mile measure is an example of how the manipulation of large and varied databases can act to confuse issues. The issue before the STB should not be overall, average railroad freight rates. In the first place, freight rates should be related to individual railroads, individual commodities, individual markets, levels of cost, and levels of service. But even more importantly, in regard to railroad matters, the STB exists only because there are rail-dependent customers. These customers, as well as the STB, should not be concerned with averages, surrogates, and inappropriate cause-and-affect relationships.

The reality is that deregulation did little, if anything, to address the needs of rail-dependent customers. These shippers have become increasingly vocal in regard to their captivity and the railroads' insensitivity to their needs. Similarly, they find virtually no relief in the regulatory process. While the Staggers Rail Act requires *fair and expeditious regulatory decisions*, the "fairness" of current standards is at best, questionable, and there has been nothing expeditious about regulatory decisions. Some maximum rate proceedings have taken more than 10 years to resolve, while regulatory proceedings in general are extremely costly, time consuming, and intimidating to shippers. At the same time, because of fewer and similar operations, railroads have strengthened their common resolve and have the financial resources to employ a delay-and-wear-them-down strategy. This has added to the lengthy and costly regulatory proceedings favoring the staying power of railroads.

An alternative to the ineffective regulatory proceedings administered by the STB, would be the concept of Final Offer Arbitration (FOA), similar to the practice in Canada. In a nutshell, FOA is a process employing either a single arbitrator, or a panel of three arbitrators, to resolve rate and/or service disputes between railroads and their dependent customers. Unless otherwise agreed to by the parties, decisions are binding and last for a stated period of time. Benefits of FOA as applied in Canada, compared with current railroad regulatory practices are as follows:

• The arbitrator's decision is made within 60 days compared with proceedings taking years—in some historic cases, over 10 years.

• Railroad customers would identify their rail dependency by committing to file FOA submissions. They are unlikely to be frivolous submissions because of the accompanying costs. This eliminates the need for theoretical and controversial determinations of "captivity" and "market dominance."

• FOA offers by both parties are likely to be moderate in that the arbitrator must pick one or the other (i.e., baseball-style arbitration). An unreasonable offer is likely to be readily rejected. This brings the dispute into a more practical zone of analysis and encourages a negotiated railroad-customer agreement prior to an FOA decision.

• There are a host of available arbitrators, and thus the process has more credibility than alternative regulatory decisions. Unlike members of the regulatory authority, arbitrators are not political appointees. They are qualified experts whose records and reputations determine whether or not they will be selected for arbitration.

• The cost of arbitration is shared equally between the railroads and their customers. While the customers' initial experience in arbitration may be somewhat costly, it is far less than that of current regulatory proceedings. Furthermore, customer expenses decline as experience with FOAs is gained.

• The FOA process takes railroad-customer disputes out of the political process. Often, the disputes are resolved by the involved parties after an arbitration application is filed but before a decision is made. In essence, moving from an FOA-type decision-making process seems to be a win-win situation for railroads and their dependent customers.

3. While prudent railroad cost control is admirable, public policy can best be served if railroads increase their traffic volume, thereby helping to relieve highway congestion, having a positive impact on the environment, and providing relatively low-cost transportation service; adequate competition should help to stimulate traffic growth and improve overall profitability.

• The major economic focus of railroads has been to maximize profits through cost reduction.

• While intermodal traffic has grown significantly, massive railroad cost cutting has not helped railroads to increase their market share, especially vis-a-vie the motor carrier industry.

• Traffic growth requires the satisfaction of shipper needs and in turn, this requires a sensitivity to those needs, a commitment to fulfill those needs, and innovative and flexible thinking.

• The culture of the large freight railroads is one that is slow to change and has never been known to have keen market sensitivity.

• Adequate railroad competition could add to railroad efficiency, but more importantly, could provide the needed sensitivity to shipper needs.

• The encouragement of railroad competition is consistent with the goals of the Staggers Rail Act of 1980.

• Public policy should not automatically preclude the enactment of provisions that provide for increased access—and thus, competition—to the railroad infrastructure.

• The very same public that provided railroads with exclusive rights-of-way and limited competition has the right to adjust the level of competition when conditions demand it.

The railroads' emphasis on cost cutting over the past 20 years is well documented. In fact, projected efficiencies were the major factor supporting the many mergers and acquisitions during these years. For example, in 1980 the railroads' operating expense per ton-mile was 2.75 cents compared with 1.95 cents in 1999.[6] This decline was realized in the face of virtually a 100 percent rate of inflation during those 19 years. And as previously shown, the reduction in railroad costs was led by draconian cuts in the level of railroad employment. Rational cost cutting is admirable and in the interest of shareholders, but what is also important—especially to the public at large—is that railroads recapture some of their lost market share, and here, the story is not good.

The railroads' share of intercity tonnage has steadily declined—from 46.7 percent in 1950, to 28.7 percent in 1980 and 25.1 percent in 1998.[7] During the late 1980s and early 1990s there was a leveling off of this downward trend, but it again has started to recede. In 1996 the railroad percent of market share was 25.8 percent, falling to 25.1 percent in 1997 and remaining there in 1998. With the motor carrier industry currently carrying about double the tonnage hauled by railroads, there is a substantial traffic base available for railroad penetration—or in reality, for market recapturing. This potential traffic base is expected to expand significantly in the future, as DOT has projected annual average increases in the U.S. domestic freight market of 3.4 percent annual between now and the year 2010.[8] Furthermore, DOT projections call for an annual 4.0 percent increase in U.S. international traffic over the next decade. Clearly, there is a sizeable market for potential railroad penetration. But such penetration requires more than continued railroad cost cutting. It requires the ability to meet customer service standards at reasonable prices. It requires competition. It requires compliance with the Staggers Rail Act, which recognized the need for competition among railroads.

The Staggers Rail Act supports and encourages the existence of rail competition in the marketplace. One of its policies is, *To ensure the development and continuation of a sound rail transportation system with effective competition among rail carriers and with other modes, to meet the needs of the public and the national defense.* This policy is supported by two other policy statements: (1) *to reduce regulatory barriers to entry into and exist from the industry*, and (2) . . . *to avoid undue concentrations of market power* . . . These policies are consistent with one of the findings of the Staggers Act, which is that: *Greater reliance on the marketplace is essential in order to achieve maximum utilization of railroads to save energy and combat inflation.*

There are many ways to induce adequate railroad competition in the marketplace. Railroads themselves can generate competition through commercial agreements and voluntary sharing of infrastructure. The selling of branch lines to local and regional railroads—without so-called "paper barriers" is a form of increased competition. So are expanded reciprocal-switching zones. The STB can induce added competition by disallowing bottlenecks in its decisions on maximum rates. And Congress can mandate adequate competition through a change in legislation that provides for increased access, somewhat on the order of the "running rights" provision available to shippers in Canada. In the case of running rights, a railroad would have to petition the STB for the use of another railroad's facilities, but with over 400 local and regional railroads in existence, such a provision may be useful. The success of such a policy is already well documented right here in the U.S. and by the railroads themselves. Both BN and UP have testified that the application of 4000 miles of

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[6] *Analysis of Class I Railroads*, *Ibid*.

[7] Eno Transportation Foundation, *Transportation in America 1999*, p. 46.

[8] Federal Highway Administration, U.S. Department of Transportation, *Freight Forecast Growth Rates*, 2001.

trackage rights—which were imposed by the STB as a condition of the UP-SP merger—are working very well for both customers and railroads. And despite claims to the contrary, when railroads oppose policies that would increase access in this way, trackage rights have resulted in no safety or operational problems, at least none reported by the railroads at this time. The point is, that adequate competition is not evil. In fact, competition is the only route for ensuring long-term financial viability for the rail industry. Deregulation and competition are inseparable. With adequate competition, the partial deregulation that now prevails can be completed and full deregulation can be implemented. Partial deregulation with ineffective regulation is not a formula for traffic growth. Without meeting shipper needs, the future of a privately-owned-and-operated, financially viable, freight railroad structure in this country is dubious. Meeting customer needs is the number one priority of virtually all for-profit companies in competitive markets, and it must be at the core of national transportation policy affecting railroads. Adequate competition is what drives customer satisfaction, and this basic concept of the free-enterprise system is what drives the country's standard of living.

In conclusion, it is my belief that staying the present course—that is, preventing adequate competition while relying on ineffective regulation—will do little, if anything, to ease the burden on rail-dependent customers, to make railroads more customer-driven, and to grow the traffic. At worse, it will lead to further consolidation and possibly, to government subsidization of the freight-railroad infrastructure.

I thank you for the opportunity to prevent my views, and I would be pleased to answer any questions.

Senator SMITH. Thank you, Dr. Levine.

All of you have contributed wonderfully to this research. I am in the regrettable situation where I am supposed to replace Senator Bunning on the chair presiding over the Senate a minute ago. He is a really big man and he gets really upset when you are late. So I may have some questions for you that I will submit in writing, and we appreciate any response you can provide to that. You have contributed immensely to the quality of this hearing and I thank you for your time.

We are adjourned.

[Whereupon, at 12:00 o'clock noon, the hearing was adjourned.]

A P P E N D I X

PREPARED STATEMENT OF THE AMERICAN PUBLIC TRANSPORTATION ASSOCIATION

APTA is a nonprofit international association of over 1,400 public and private member organizations including transit systems and commuter rail operators; planning, design, construction and finance firms; product and service providers; academic institutions; transit associations and State departments of transportation. APTA members serve the public interest by providing safe, efficient and economical transit services and products. Over ninety percent of persons using public transportation in the United States and Canada are served by APTA members.

INTRODUCTION

The American Public Transportation Association (APTA) appreciates the opportunity to submit testimony to the Senate Surface Transportation and Merchant Marine Subcommittee on railroad infrastructure capacity and long term capital funding needs.

About APTA

APTA's 1,402 public and private member organizations serve the public and public interest by providing safe, efficient, and economical public transportation service, and by working to ensure that those services and products support national energy, environmental, community, and economic goals. APTA member organizations include transit systems and commuter railroads; design, construction and finance firms; product and service providers; academic institutions; and State associations and departments of transportation. More than ninety percent of the people who use public transportation in the U.S. are served by APTA member systems.

COMMUTER RAIL: A GROWING PART OF THE RAILROAD FAMILY

The past 20 years has been a period of significant change for the American railroad industry. While the Staggers Act of 1980 is rightfully credited with helping the once threatened railroad industry become profitable again, it has also led to significant consolidation and downsizing of America's railroad network. Meanwhile, commuter railroads have blossomed in this period, and are a major success story in the railroad industry.

Let's start with ridership. Mr. Chairman, the latest numbers are in, and they prove that more and more people are choosing public transportation. Last year was a banner year for transit, with a greater number of transit trips taken (9.4 billion) than in any year since 1959. Thanks to Congress' investment in the Federal transit program through legislation such as the Transportation Equity Act for the 21" Century (TEA 21), thanks to improved customer service by public transportation providers, and thanks to a healthy economy, ridership on the nation's public transportation systems has grown 21 percent over the past 5 years. This is four times faster than the U.S. population (4.8 percent), double the growth rate of highway usage (11 percent), and faster than the growth rate in domestic air travel (19 percent).

Last year, passengers took 411 million trips on our commuter railroads, and ridership was up 5.2 percent in the year 2000—a year in which new operations were inaugurated in Seattle, Washington and Burlington, Vermont, and a major extension of the Dallas-Fort Worth Trinity Railway Express. Following are examples of commuter rail ridership increases for the year 2000: Philadelphia's SEPTA regional commuter rail ridership was up 8.5 percent; Southern Florida's Tri-Rail: 10 percent; San Jose's Altamont Commuter Express: 66 percent; the Virginia Railway Express: nearly 20 percent; Trinity Railway Express: 39 percent; New York's Metro North Commuter Railroad: nearly 5 percent; the Metrolink system in Los Angeles: 11 percent; and the Bay Area Caltrain: 14 percent. Clearly, when people are given a choice, many will choose to ride quality rail transportation.

Significant growth is projected for the future. Currently there are almost 3,825 route miles of commuter rail service in operation in the U.S. An additional 134

miles are under construction and 300 miles are in design; with over 2,300 miles in planning and 1,100 additional miles under consideration for commuter rail projects. New commuter rail systems are in various stages of development in Nashville, Anchorage, Minneapolis, Salt Lake City, Kansas City, Houston, Charlotte, and Portland. Major expansions of current operations are underway in Chicago, Dallas—Ft. Worth, Seattle, and Miami and others are planned by almost every other system.

PARTNERSHIPS ARE KEY TO SUCCESS

How will commuter railroads be able to achieve the expected rate of growth? Certainly, it will require a partnership among communities, freight railroads, and, I believe, Federal and State governments as well. APTA is interested in supporting a broader agenda to foster the growth of railroads.

Historically, America's rail corridors have been used for both freight and passenger purposes. At one time, both passenger and freight services were operated by the private sector under laws governing public utilities. As passenger operations were abandoned by private railroads, services were often taken over and/or supported financially by public entities.

Currently, a number of publicly owned rail passenger agencies (among them NJ Transit, Long Island Railroad, Metro North, Trinity Railway Express, and the Utah Transit Authority) own the rights-of-way used for rail passenger service, and have negotiated agreements with freight carriers allowing the use of their track for freight movements. In many more instances, however, public transit agencies use rights-of-way owned by private railroads for the operation of their passenger services.

Therein lies the challenge—and the opportunity. We must come up with a better process for using freight corridors for passenger operations. Without access to these corridors, the cost of many new passenger rail projects will become prohibitive. Indeed, the 2,300 miles of commuter railroads in planning and the 1,100 miles under consideration may not be built unless we find an easier way for the freight railroads and passenger railroads to work together on rail access. While many access agreements have successfully been negotiated, freight railroads can, and do, unilaterally deny access to passenger rail agencies or hold out for financial conditions that are beyond any fair or reasonable standard of the passenger authority to pay. In such situations, there is no process for the public interest to be taken into consideration, and local officials have no recourse or ability to appeal the unilateral decision of a freight railroad. We are supportive of legislation directed at this problem, and I look forward to continuing discussions with the Subcommittee and with freight railroads.

THERE IS A NEED TO GROW THE NATION'S RAILS

A Looming Crisis in Transportation System Capacity

America's transportation system is showing signs of severe stress. Demand for transportation services is increasing, and it is critical that we develop a strategy for new investments in the nation's physical infrastructure. In many places, severe congestion in our roadways and railways, severe overcrowding of public transportation vehicles, and gridlock in our airports are beginning to take on crisis proportions. The capacity of the nation's transportation system is an issue affecting all modes. Adding to the capacity of our railroads, airports, roadways, port facilities and public transportation infrastructure will be critical to our ability to sustain strong economic growth in future years.

Testifying before the House Transportation and Infrastructure Committee on April 4, 2001, Transportation Secretary Norman Mineta spoke of the congestion in the various components of America's transportation system, and made specific mention of the growing role of commuter railroads. The hearing called attention to U.S. DOT's Condition and Performance Report, and its $17 billion capital funding needs figure for public transportation (a formidable figure, but one that underestimates the scope of transit's future growth). Federal support for public transportation is provided largely through the Mass Transit Account of the Highway Trust Fund. A key to the continued growth and success of commuter railroads and other public transportation modes is the Highway Trust Fund and keeping it true to the need for greater investment in highway and transit infrastructure.

Railroad Legislation and the 107th Congress

In today's hearing, the Subcommittee has focused attention on the policy issues that confront railroads as they seek to position themselves for an expanded role in our transportation future. A number of specific programs already have been put before the Subcommittee.

APTA is supportive of efforts such as the High Speed Rail Investment Act of 2001 (S. 250) because rail infrastructure needs improvement. In supporting such efforts, APTA affirms its longstanding policy that the Mass Transit Account of the Highway Trust Fund be used exclusively for public transportation needs and not be expanded to cover other uses, including intercity rail.

Mr. Chairman, there has been discussion in both the House and the Senate about ways to provide funding for shortline railroads to improve track and related structures to a level that can accommodate the safe and efficient movement of the new, heavier 286,000-pound rail cars being adopted as an industry standard by the large railroads. While this bill probably will have limited direct benefit to APTA's membership, APTA commends the consideration of innovative ways to help railroads grow.

I also note that the $3.5 billion Railroad Rehabilitation and Improvement Financing program (RRIF) is a potential source of important capital funding for both freight and passenger rail projects. No loans have been released under this program since it was reconstituted in TEA 21, and APTA urges that any remaining administrative obstacles be cleared in order to put this innovative program to use.

I also want to highlight the importance of research and technology to the future of railroads. For example, the continued development of positive train control can facilitate the integration of commuter rail, freight rail, and high-speed intercity rail on common trackage by lowering cost and improving performance. This can help maximize the productivity of existing infrastructure.

Finally, at some point the Subcommittee will review the rail safety programs administered by the Federal Railroad Administration and take up the reauthorization of the Railroad Safety Act. APTA's position calls for reauthorization of the Rail Safety Act without additional statutory requirements. Additional statutory and regulatory requirements for railroad safety could divert focus and limited resources away from pro-active safety activities and infrastructure investments. To enhance safety, we also urge additional funding for elimination of grade crossings and installation of protective devices. Finally, nothing should be done to weaken the important new partnerships among FRA, rail management and rail labor that have developed over the past years. Through the FRA's Rail Safety Advisory Committee and our own Passenger Rail Equipment Safety Standards program, rail labor and management are partnering with FRA to enhance rail safety—to make permanent our record of the seven safest years in railroad history.

RAILROADS AND OUR TRANSPORTATION FUTURE

In the railroad family, as well as the transportation community at large, all modes benefit as each mode is improved. Whenever this happens, the public is the beneficiary. APTA will be supportive of an agenda that benefits all segments of the transportation industry.

For commuter rail, we want to build on the success of TEA 21. There are clear indications that the public wants rail passenger transportation, and will choose to use public transportation when provided the availability of quality service. All around the country, people are voting with their feet and flocking to rail.

We also want a process that can assure better cooperation in the use of shared corridors. In the end, this will also be of benefit to freight railroads as well as passenger agencies by bringing in additional resources and public support. On a more practical level, the 200 new passenger rail projects authorized by Congress in TEA 21 will not happen without a workable process.

APTA appreciates the opportunity to testify, and looks forward to working with the Subcommittee to assure that our nation continues to be served with an efficient and effective freight and passenger rail network.

PREPARED STATEMENT OF PATRICK K. GAMBLE,
PRESIDENT AND CHIEF EXECUTIVE OFFICER, ALASKA RAILROAD

My name is Pat Gamble and I am the President and Chief Executive Officer of the Alaska Railroad. Thank you for the opportunity to submit this testimony for the record.

In many ways, the story of the capital infrastructure needs of the Alaska Railroad are unique. But in other ways, the bottom line of our story is identical to that of other smaller freight and public passenger railroads: There is a proper Federal role and genuine need for Federal capital assistance for our nation's rail network, both passenger and freight, in order to continue to safely connect all areas of our entire nation together.

BACKGROUND ON ALASKA RAILROAD

The Alaska Railroad is not your typical Lower 48 Class II railroad:

• The Alaska Railroad has been in existence 87 years as a result of the Congressional Enabling Act of 1914. Congress recognized the need to open the Alaskan territory for economic development and therefore empowered the President to construct and operate a rail line to connect one or more of the open Pacific Ocean harbors on the southern coast of Alaska with the navigable waters in the interior of Alaska.

Throughout the period of Federal ownership, the railroad has come under the Department of Interior, and later the Department of Transportation. During the period of Federal ownership the Alaska Railroad was mandated through its enabling legislation to be a self-sustaining enterprise. Capital funding, therefore, was limited and sporadic.

Since its first beginnings, it has been a full service Railroad, providing both freight and passenger service to Alaskans. Beginning, in its early years of the 1920s and continuing up through the 1950s, the Railroad inaugurated passenger, mail and freight service, and connected via river barge out of the railbelt community of Nenana up the Tanana river to the village of Holy Cross some 642 miles up river, as well as other villages along its route.

• In 1985, the Alaska Railroad belonged to the U.S. Department of Transportation. Congress passed the Alaska Railroad Transfer Act of 1983 and sold the Railroad to the State in 1985. Today, the Alaska Railroad is a state-owned corporation, similar to Amtrak being a federally owned corporation. The Railroad has a 7-member Board of Directors appointed by the Governor. Under Alaska law, our board includes the State Commissioner of Transportation, Commissioner of Economic Development and also one employee from a bargaining unit. our railroad has long been fully unionized under both State and Federal ownership and we value our partnership with our union employees. The remainder of the Board Members must have business experience and one member must have management experience on a United States Railroad.

The Alaska Railroad is really two railroads in one:

• We are a Class II freight railroad subject to the jurisdiction of the Surface Transportation Board, just like any other freight railroad. While our track does not physically connect with track in the Lower 48 or Canada, we are part of the North American freight rail system via rail barge connections in Seattle with Burlington Northern Santa Fe and Union Pacific, and in Prince Rupert, British Columbia, with Canadian National.

• We are a full-service year-round passenger railroad, both short-haul and long haul. our passenger service meets Federal Transit Act definitions of "mass transportation" and "transit" just like the 17 other State passenger railroads do. Our unique combination of both short-haul and long-haul passenger service places us with one foot in the "Amtrak" business, and the other in the metropolitan transit business.

• The Alaska Railroad's passenger service significantly influences our corporate vision. We carry more passengers each year than the entire population of our state. To put that in a Lower 48 equivalent, Amtrak would have to increase ridership over 13fold for the same proportion of riders to population. 70 percent of Alaska's population lives along what we call our "rail belt." The rail belt is our version of the Northeast Corridor for rail passenger service, except that in Alaska it contains proportionately more people.

• The major portion of land mass within Alaska, however, is without any transportation corridor, whether it be rail or highway. We want to advance the vision of the 1914 Congress by continuing to utilize the Alaska Railroad as the primary tool for further development of a transportation corridor, as well as continued expansion of economic development through the State of Alaska. Railroads provide the most cost and energy efficient method for opening undeveloped areas for resource development.

We also want to continue the vision of our early Alaska pioneers by creating a transportation corridor into some of the mineral rich resource areas. Ultimately we want to link our rail transportation system with the rest of the nation.

To summarize our history, we have been providing complete transportation service for Alaskans since 1923. Alaska's growth and development makes us what we are—a successful enterprise.

CAPITAL NEEDS OF ALASKA RAILROAD

As I said at the outset, since we are full service the Alaska Railroad is not a typical Lower 48 railroad. But in other ways, our funding situation is typical of Lower 48 public passenger and Class II and III freight railroads where essential Federal capital assistance is concerned.

When the Federal Government sold the Alaska Railroad to the State in 1985, it came with a huge backlog of deferred capital investment and maintenance. We have been trying to catch up ever since. Under Federal ownership, we had been a low U.S. DOT budget priority. We were the Alaska equivalent of Washington Reagan National Airport in the mid-1980s, which likewise had a massive capital backlog from direct Federal ownership days, and was transferred about the same time as us. (In fact the language used in the transfer legislation for the Alaska Railroad was used by Congress as model language for the transfer of National Airport).

For 10 years after the Federal Government transferred the railroad to the state, we received no regular Federal capital funds, despite being a public passenger railroad, within FTA "transit" definitions, and providing Amtrak-like service. There was understandable desire in Washington to show a budget savings from the transfer, so we often fell short in the Federal railroad support programs. For 10 years, we were the only public passenger railroad in the nation who did not receive Federal capital funds.

At the time of Federal transfer, our railroad should have been putting about $15-$20 million annually into its capital program, according to an independent analysis at the time. But after Federal transfer, our only resources for capital improvements were whatever earnings we had left over at the end of a year, if any—typically a third or less of what was required just to maintain the status quo. Our passenger rail operations received no regular State financial support, but we are allowed to retain our corporate earnings. So our freight earnings had to subsidize our passenger services. As you know, this was the way passenger systems in the Lower 48 used to be supported.

A benchmark we use at Alaska Railroad for railroad capital investment is about 20 percent of revenue. After Federal transfer, we could only afford to invest an average of 6 percent. So not surprisingly, we were in a downward infrastructure spiral, similar to that which many small railroads in the Lower 48 are now facing.

If the 10 years without any Federal capital assistance had gone on much longer, we honestly don't know where the Alaska Railroad would be today. Largely inoperable, I suspect.

Fortunately, the Alaska Congressional delegation recognized the problem and stepped in. Beginning in fiscal year 1996 due to Sen. Ted Stevens, we received our first installment of badly needed capital appropriations for our passenger system. Administered through FRA, it helped us begin to address our massive deferred maintenance and modernization needs. For example, until just recently, our whole system was entirely "dark territory"—completely out of contact with any rail dispatcher. Keep in mind ours is a system transporting passenger, freight, and hazardous materials all together along a single track system.

Then beginning with TEA–21, the FTA law was clarified and we began to receive some FTA formula funds as other State passenger railroads and rail transit systems do.

Congress has continued to be most understanding and we are truly thankful for your support. Today, thanks to Federal capital assistance, we have been able to improve our track safety, and undertake important modernization initiatives.

I would like to point out, however, that all of our continuing Federal capital funds are legislatively tied to passenger operations. We receive no Federal funds to sustain or upgrade our freight operations. But there is a compelling need in this area, in Alaska, as well as, for other small freight railroads in the Lower 48.

Mr. Chairman, on the one hand, we have been fortunate because we began receiving long overdue Federal funds. But on the other hand we still have a lot of catching up to do in order to achieve and sustain the safety and productivity standards expected by our customers and by the State of Alaska. That is made all the more difficult when one considers the particularly rugged and harsh environment we work and operate in year around.

In terms of our passenger operations: We request further equity within the FTA capital funding programs. For example, other State passenger railroads and rail transit systems count 100 percent of their passenger factors for FTA funding formulas. We are allowed to only count 20 percent, despite 100 percent of our passenger system meeting the FTA "transit" definition. That is because we are the only State passenger railroad where our service is not wholly for an "urbanized area" as defined by FTA. Being able to count 20 percent is a big improvement from the days of zero, and we are certainly grateful for those funds. But we hope to solicit support to refine that percentage upward even further out of consideration for our status. We understand this issue is within the jurisdiction of the Senate Banking Committee. I petition that Committee to ensure we are treated comparably to other State passenger railroads under FTA capital programs.

In terms of our freight operations: We ask this Subcommittee to approve legislation for capital assistance for freight projects of Class II and III railroads. Like other Class II and III freight railroads, we have pressing needs to maintain and modernize our freight system for which we do not have sufficient resources. As I stated earlier, in Alaska our freight system is part of the interstate rail network, via rail barges. Therefore, it is not just an Alaska issue, but an issue of keeping our national rail system tied together.

The House has before it H.R. 1020, introduced by the leadership of the Railroads Subcommittee and cosponsored by Chairman Don Young and other Members. H.R. 1020 would authorize capital funds for track projects of Class II and III freight railroads. A Senate version is expected to be introduced soon.

The Alaska Railroad supports H.R. 1020 and Senate companion legislation as a step in the right direction. We hope the bill will clearly State that our track and other infrastructure needs will be eligible. We understand the bill was prompted primarily to upgrade Class II and III track to handle the new heavier 286,000 pound rail cars used by Class I railroads. The Alaska Railroad does not have a 286,000 pound car problem as such. However, our geographic and climactic situation being, what it is, we too have compelling track and freight infrastructure needs. We ask that when this Committee considers this legislation, it will keep our situation in mind.

Finally, Mr. Chairman, I note H.R. 1140, the Railroad Retirement and Survivors' Improvement Act. Again, Senate companion legislation is expected to be introduced soon. Our railroad is not under the Railroad Retirement system, since we have always been governmental. But we still support the Railroad Retirement bill for several good reasons: First, we have many great workers who transfer from Lower 48 railroads who would rightfully benefit. What is good for railroad workers is good for our railroads. Second, the bill will help us in Alaska by making it easier to recruit skilled workers from Lower 48 railroads to move to Alaska, because the bill reduces the vesting period from 10 years to 5 years. Accordingly, I want to add our support to the coalition of AAR, ASLRRA, and the rail unions supporting H.R. 1140.

Thank you, Mr. Chairman, for this opportunity to submit this testimony for the record.

RESPONSES TO WRITTEN QUESTIONS SUBMITTED BY HON. GORDON SMITH TO RICHARD K. DAVIDSON

Question 1. Mr. Davidson testified that in many instances, UP and BNSF are working together to provide better service and in some cases have actually created competition for shippers as a result of trackage rights over each other's lines. I am informed that about 18 percent of U.S. rail mileage consists of trackage rights under which one or more railroads have authority to operate over the track owned by another railroad.

(a) To what extent does the industry "voluntarily" share its track or equipment? Is such "sharing" only because the industry has been required to do so as a condition of a merger?

(b) To what extent has such "sharing" negatively impacted either BNSF's or UP's bottom line?

(c) If trackage rights work for nearly 20 percent of the rail system, why shouldn't we presume it would be successful over a larger percentage of the system?

Answer. Existing trackage rights are of two types. The first are those that are required by the Surface Transportation Board (or its predecessor, the Interstate Commerce Commission) as a condition of its granting approval for two railroads to proceed with a proposed merger. In reviewing a proposed merger, the Board identifies those places where, as a result of the merger, a shipper would lose the competition he previously had with two railroads. In those cases, the Board, as a condition for approving the merger, may require the merged railroad to grant trackage rights over its lines to another railroad to ensure that no shipper would lose service by two railroads as a result of the merger. There is no forced market extension and no injection of new competition—only the preservation of preexisting competition.

Moreover, the proposed merged railroad has a choice. It can agree to the trackage rights condition and proceed with the merger, or it can forego the merger. This decision is a voluntary one, based upon the merging railroads' analysis of the underlying economics, i.e., do the expected benefits of the merger exceed the projected costs of the trackage rights? If they do, the merging railroads consummate their merger. If not, they walk away.

The second type of trackage rights agreement is significantly different. It does not grant the tenant railroad access to any of the owning railroad's customers. Instead,

it provides operational benefits to both railroads. This type of trackage rights is generally found where two railroads have duplicate facilities. For cost saving reasons, they can agree to abandon one track and to operate over the other, sharing maintenance and operating expenses. Alternatively, they could agree to keep both tracks, giving each other reciprocal rights so that both railroads could operate the tracks directionally—e.g., one track carrying only southbound traffic with the other carrying only northbound—an arrangement that allows both railroads to operate more efficiently. The significant feature of this type of trackage rights is that it is only operational in its impact. It is not a market extension, it does not grant either railroad new access to customers previously served only by the other, and it does not change the balance of supply and demand that previously existed in the free marketplace.

The trackage rights proposed by shipper groups such as CURE and ARC are something entirely different. Indeed, they are totally unprecedented and, as such, the impact of such trackage rights cannot be measured by experience with the two types of trackage rights mentioned above.

The unlimited trackage rights referenced in your question are unprecedented. First of all, they are totally involuntary in that they would be unilaterally imposed by the government upon the railroads against their will. This, in substance, would be a taking of private property.

Second, the new type of trackage rights being proposed, unlike those now in existence, would have a major net negative economic impact on the railroads.

The imposition of such trackage rights is intentionally designed to destroy the ability of the railroads to differentially price their services on the basis of the needs of the shippers, which is essential to the railroads' economic survival. This stands in marked contrast to the two types of currently existing trackage rights. The "operational trackage rights," since they do not grant access to customers served by only one railroad, have no effect on the railroads' ability to price differentially. Thus, they produce operational savings and efficiencies without any loss of revenue. Similarly, since merger trackage rights simply replace competition that existed before the merger, they do not reduce the railroads' ability to price differentially. Moreover, any loss of revenue that might be attributed to those trackage rights is offset by merger savings.

Thus, both types of existing trackage rights produce positive net economic benefits to railroads. In contrast, the trackage rights now suggested are specifically designed for the sole purpose of driving down existing rail rates (and thus rail revenues) by artificially forcing competition where the free market will not support it, without any offsetting cost savings or efficiencies.

The rail industry recently completed a study showing that the loss of differential pricing that would result from the current open access proposals would cost the rail industry up to $4 billion annually in net revenues (which even at current levels do not cover the railroads' cost of capital). This would eliminate the railroads' ability to reinvest in and maintain the nation's rail system, eventually creating the need for a Federal subsidy to replace that lost revenue and preserve our rail system.

Question 2. Senators Dorgan and Rockefeller have introduced legislation (S. 526) that would, among other things, subject rail agreements and transactions under the STB's jurisdiction to antitrust laws. How would enactment of this proposal affect the rail industry and the manner in which it currently operates?

Answer. The enactment of legislation subjecting rail agreements and transactions now under STB jurisdiction to the antitrust laws under Department of Justice jurisdiction could have several surprising consequences. For example, a DOJ review of proposed mergers would be confined to a traditional antitrust analysis, which is considerably narrower than an STB review, particularly if the Board adopts the currently proposed changes in its merger rules. Under traditional antitrust analysis, a merger of any two of the six largest American railroads would very likely be approved by the DOJ since it would basically be an end-to-end merger with little competitive overlap. STB review, particularly under the proposed new merger rules, would be a much broader analysis into whether the proposed merger would be in the public interest, taking into account its potential downstream effect (would it trigger other mergers?), as well as its impact on labor and the environment. Under its proposed new rules, the STB would also insist that, as a condition to approval, the merger must not merely preserve competition, but enhance it. Traditional antitrust review addresses none of these issues. Accordingly, it is likely the STB would take a harder and more critical look at another rail merger than would the Department of Justice.

This STB broader review is made possible not simply by the breadth of its statutory mandate, as implemented by the proposed new merger rules, but also by the fact that the STB staff over the years has acquired a special knowledge of, and ex-

pertise in, the railroad industry that goes beyond that possessed by the staffs of the Department of Transportation and the Department of Justice. This makes it possible for the STB and its staff to look behind and critically examine merger applicants' claims more intensely than the Department of Justice would be able to do.

The difference in approach between the Department of Justice, applying traditional antitrust analysis, and the Surface Transportation Board (including its predecessor, the Interstate Commerce Commission), applying the broader public interest standard, also extends to review of other railroad agreements, such as the inter-railroad agreement that created Trailer-Train, a major supplier of rail cars to the entire industry. The Department of Justice looks with disfavor upon such "pooling" agreements even where it could be shown, as it was in the Trailer-Train case, that such pooling creates major efficiencies that improve rail competition. The Trailer-Train pool was approved by the STB's predecessor and has clearly served the public interest. It would not have existed had it been reviewed by the Department of Justice under the much narrower scope of the antitrust laws.

Question 3. To what extent do capacity constraints impede the rail industry?

Answer. Capacity in the rail industry includes track, terminal, repair shop and workforce capacity, as well as the size and condition of locomotive and car fleets. Lack of capacity in any of these areas directly reduces a railroad's ability to provide reliable service. Without consistent and reliable service, a railroad cannot attract the traffic volume and revenues needed to support the large capital investment a railroad requires. Without increased capacity, a railroad would obviously be unable to accommodate growth in the general economy, such as in the demand for the transportation of coal needed for generation of more electricity. Without increased capacity, a railroad would certainly be unable to expand its transportation of premium products, such as intermodal business.

The importance of capacity to a railroad is illustrated by looking at track capacity as an example. Track capacity is a function, among other things, of the number of tracks (single, double or even triple), the number of sidings (to accommodate overtakes, meets and passes), track condition (which determines allowable speed) and the existence or nonexistence of advanced traffic control systems on a particular route. Lack of capacity over any route reduces train velocity over that route, which, in turn, increases operating costs and reduces the utilization or productivity of all assets (locomotives, cars and crews) used over that route. Thus, inadequate capacity could trigger a downward spiral. The best (or worst) recent example of this was the 1997–98 service crisis following Union Pacific's acquisition of Southern Pacific, which was principally caused by a lack of capacity and track maintenance on the Southern Pacific. SP lacked the capital needed to make the investments required for adequate capacity.

On a more positive note, a good example of how capacity enhancements can improve the overall performance of a railroad is our recent investment of over $300 million in upgrading and adding a third main line to our 110-mile route between North Platte and Gibbon, NE (which is the busiest section of railroad in the country). The attached chart illustrates the very substantial productivity gain that resulted from that capacity addition.

Notwithstanding investments such as this and a total investment of over $10 billion in plant and equipment over the last 5 years, there are still areas where Union Pacific is capacity restrained. For example, we need to continue adding capacity in the form of additional doubletrack and sidings over the former SP Sunset route between Los Angeles and Kansas City to accommodate intermodal traffic between West Coast ports and Chicago. We also need to expand intermodal facilities throughout our system. These are only two examples of capacity additions that are required to serve our customers. In addition, we need to continually maintain our roadbed, terminals and fleet to avoid what happened to the Southern Pacific prior to our merger.

All of this requires a continuing high level of capital investment and reinvestment that is dependent upon maintaining and growing our revenue base. This is a major challenge since railroads are still not earning their cost of capital. Reregulation, such as the current forced access proposals which are designed to reduce our revenue base substantially, would make our task impossible.

In short, capacity, continuing capital investment, and the strong revenue base to support them are the keys to building and maintaining a sustainable and reinvestable railroad. Conversely, restraints on capacity, investment and revenues would be serious threats to a railroad's sustainability.

Question 4. Railroads, like other businesses including utilities, chemical manufacturers, and agriculture, need incentives in their operations in order to improve their services and products. Yet there is concern that in the effort to provide rate relief to captive shippers and mandate rail-to-rail competition where none has existed, we

run the risk of reducing incentives for railroads to reinvest in improving their service and expanding capacity. What are your views on these possible risks?

Answer. **???**

Question 5. The concept of "open access" is sometimes recommended by rail shipper groups—although not all shippers—as a means to generate competition.

(a) How would open access affect the rail industry's incentive to invest in infrastructure?

(b) How could differential pricing be carried out in an open access environment?

Answer. There are two themes in these three questions. They are how would rail-to-rail competition and open access impact our ability to invest, and how could differential pricing be carried out in open access? The short answer is universal rail-to-rail competition and open access would have a devastating impact on our ability to invest, and I know of no way to have differential pricing in an open access regime. This is particularly so in the open access regime proposed by certain shippers, where government, rather than the marketplace, would set prices.

Open access proposals take various forms, including universal trackage rights, mandatory reciprocal switching, and mandatory "bottleneck" rates. All these proposals (which by clear implication would include government price controls on what a railroad could charge for access or a "short haul" to a bottleneck point) would undercut rail revenue and cripple our ability to invest. By trying to force more competition where the marketplace will not support it, these proposals would lead to a shrinkage of rail services and the ultimate non-viability of the railroads. This has happened twice before when regulators went too far—before World War I and after World War II. Both times the government had to bail out railroads that lacked the funds to invest.

Indeed, in a number of places on our system, particularly in and around major metropolitan areas, our capacity, though not presently constrained, is at or near its limits. If additional traffic demands were imposed on our system in those places, additional capacity would have to be added to avoid constraints that otherwise would impair our ability to provide adequate service.

Railroading is highly competitive with many shippers being served by trucks, water carriers, and other railroads. Moreover, product and geographic competition also helps to constrain rail rates. However, every rail-served facility does not have two railroad service. This does not reflect any inadequacy in existing competition. The current level of rail competition reflects private marketplace decisions as to which rail markets will sustain multiple carriers and which will not. Having the government artificially engineer more competition than the private markets can support can only reduce the ability of railroads to earn an adequate rate of return. There simply can be no other outcome.

To put this in a better perspective, let me provide some real dollar amounts to show the devastation these kinds of proposals would create. In 2000, as an industry, railroads grossed $34.1 billion in revenue. Of this, $29 billion went toward operating expenses, resulting in $5.1 billion in operating income. With this $5.1 billion, we have to pay taxes, make capital investments, and pay for other expenses. As I indicated in my written testimony, these types of open access proposals would, on a conservative basis, eliminate $2.4 billion of this $5.1 billion. As stated above, our latest studies indicate that the real cost will be much higher ($4 billion). Obviously, this would cripple our industry.

Some argue it is unfair that railroads are allowed to charge some customers higher rates than others. Such differential pricing, however, is common in one form or another in every industry. This is the only system that allows railroads to be self-sufficient. Differential pricing, charging rates that reflect customer demand for rail service—coupled with maximum rate limits, that are enforced by the STB, allows every shipper to pay the lowest possible rate consistent with a self-sustaining rail system. Changing this system will either shrink the rail network or require large amounts of public subsidies.

Can differential pricing work in a forced access regime? Simply put, it cannot. Differential pricing is based on marketplace needs. Forced access, which is based upon artificial competition imposed by the government, would radically restructure that marketplace. Open access will require invasive regulation. An essential part of open access is that the government must determine access fees, and these fees will be heavily litigated. Bottleneck schemes would re-balkanize rail routings and create more inefficiency. Moreover, forced, below-cost fees would give rise to contentious disputes about operations and investment. Railroads will not spend money on infrastructure that is being used by a competitor at below-market rates.

If Congress should choose to go down the path of open access, it should do so with its eyes open. The current regulatory scheme has created a rail network that is the envy of the world. If Congress should choose open access as the new scheme, it

should be prepared for one of two outcomes. We will either have a much smaller, less efficient rail network, or the government will have to be prepared to invest billions of dollars into an industry that today is largely self-sustaining.

Question 6. At least two of the witnesses on the next panel will comment about the Federal subsidy discrepancy between the rail industry and its competitor modes. What are each of your views on this? Is the rail industry seeking a Federal funding program similar to the highway trust fund?

Answer. The Federal subsidy difference between other transportation modes and the rail industry is well documented. While the trucking and waterway industries pay taxes to support their infrastructure, it is not sufficient to cover their use of these systems. Moreover, these modes have different, more favorable tax treatment for their equipment, and are not burdened with other governmentally imposed costs such as the Federal Employers Liability Act (FELA) or an antiquated retirement system that is maintained by a 36 percent payroll tax. Having said that, I am not advocating an increase in our competitors' taxes. Rather, I would urge Congress to repeal the 4.3-cent gas tax we pay for deficit reduction, pass railroad retirement reform, and make no changes in our economic regulatory structure. This would be an excellent first step toward parity between the modes.

The second part of your question asks if the rail industry is seeking a Federal funding program similar to the highway trust fund. The answer is absolutely no. As you know, we build and maintain our own systems. Having a program similar to the highway trust fund would divert our resources to such a fund. Rather than each railroad making a business decision on where to invest, the government would be placed in that role. Not only would that create a needless and inefficient middleman for rail investment, but it could also unfairly skew the competitive landscape. For instance, suppose we invest private dollars to build an intermodal yard. Would it be fair for the government to fund a similar yard for our competitors?

However, are there places where government investment is acceptable and worthwhile? Yes, there are. One such area is commuter rail. Urban sprawl and congestion are problems facing city planners, and many commuter agencies are looking at passenger rail to solve their problems. Many of these agencies look at our tracks as a way of solving their commuter problems. However, they often do so without considering that we have limited capacity, and we need that capacity to move freight. If rail freight capacity is captured for commuter trains, more freight will be forced into trucks, and road congestion will get worse, not better.

That is not to say that we are opposed to commuter rail. In fact, we have participated in many commuter rail projects where the commuter authority replaces the capacity used by its passenger trains, usually with public money.

Additionally, there are other public/private projects that make sense. The FAST Corridor project in the Pacific Northwest and the Alameda Corridor project are two examples. These two projects allow us to move freight in a more efficient manner, while at the same time allowing for a more livable community by eliminating grade crossings.

Another type of project that makes sense is rail relocation efforts. Often communities have a transportation plan that requires the relocation of a rail line. Since our industry usually derives no benefit from such a relocation, it is often up to the community to find the funds to move the line.

Yet another example is intermodal access routes. These are highway projects that develop transportation infrastructure for intermodal terminals which, among other benefits, improve air quality by reducing highway truck traffic.

The general theme in all of these types of projects is that there is some overarching public benefit. The rail industry is proud that it funds its own network and is not seeking a change in this area. However, State and local planners should have the flexibility to use their transportation dollars in a manner that best addresses the needs of the communities where they will be spent.

RESPONSES TO WRITTEN QUESTIONS SUBMITTED BY HON. GORDON SMITH TO BURLINGTON NORTHERN SANTA FE CORPORATION

Question 1. Mr. Davidson testified that in many instances, UP and BNSF are working together to provide better service and in some cases have actually created competition for shippers as a result of trackage rights over each other's lines. I am informed that about 18 percent of U.S. rail mileage consists of trackage rights under which one or more railroads have authority to operate over the track owned by another railroad.

(a) To what extent does the industry "voluntarily" share its track or equipment? Is such "sharing" only because the industry has been required to do so as a condition of a merger?

(b) To what extent has such "sharing" negatively impacted either BNSF's or UP's bottom line?

(c) If trackage rights works for nearly 20 percent of the rail system, why shouldn't we presume it would be successful over a larger percentage of the system?

Answer. Track and equipment sharing arrangements are common in the railroad industry. Such arrangements are a key element of our operational efficiency and they underlie our networking capability, which enables railroads to transport shipments between customers served by different carriers. The nature of railroading requires companies that compete with one another to also cooperate and coordinate with one another, to ensure an efficient, free flowing and national system.

As far as track sharing, BNSF has rights on more than 8,300 miles of trackage owned by other railroads, and other railroads have rights over 4,900 miles of BNSF trackage. Some of these are longstanding arrangements, going back a century or more, such as Union Pacific's rights on BNSF over Cajon Pass in Southern California, BNSF's rights on Union Pacific across the Tehachapi Mountains, and Union Pacific's rights on BNSF between Tacoma and Vancouver in Washington. Other agreements are more recent, resulting from the need to maintain rail-to-rail competition for shippers served by merging carriers, or from traffic declines so severe that separate operations need to be consolidated on a single route as the only economically feasible way to maintain service. It should be noted that trackage use agreements do not necessarily allow the tenant railroad to serve on-line customers—some agreements do, while others do not.

Equipment sharing is ubiquitous in railroading. Many rail cars are in "free running" service, allowing them to be loaded and sent to any rail destination in the nation, then immediately reloaded. Certain other cars, such as those used for intermodal and automobile-carrying service, are predominately owned and managed by TTX Corporation, a company jointly owned by the railroads for purposes of ensuring equitable access to cars for member railroads, adequate car supplies for customers, and efficient utilization of the equipment. Locomotives, too, are frequently "run-through" on trains that are interchanged between railroads, in order to ensure good service and the best possible asset utilization.

A critical point to recognize is that all these track and equipment sharing agreements are voluntary. Access rights and fees are negotiated at "arms length" between the parties to ensure the best possible customer service and asset utilization, and, if additional track capacity is required to accommodate additional trains on a route, the parties work out a voluntary arrangement for sharing the costs. While trackage rights agreements made to facilitate a merger are typically memorialized as a condition of the merger, the ultimate basis for such agreements is voluntary.

It is possible that voluntary trackage rights agreements could be successful over certain additional routes of our nation's rail network. In fact, adjustments to trackage rights agreements between railroads occur regularly, and it is not uncommon for such adjustments to result in expanded rights over additional routes, or for entirely new agreements to be negotiated between rail companies.

Our concern, quite frankly, is over proposals made by certain shipper groups that could result in involuntary access, mandated by government, with prices and other terms set by a government agency that could be considered tantamount to government running the railroads.

Question 2. Senators Dorgan and Rockefeller have introduced legislation (S. 526) that would, among other things, subject rail agreements and transactions under the STB's jurisdiction to antitrust laws.

(a) How would enactment of this proposal affect the rail industry and the manner in which it currently operates?

Answer. This legislation would effectively give both the Surface Transportation Board (STB) and the Department of Justice (DOJ) jurisdiction over rail mergers and certain equipment related agreements.

With respect to rail mergers, DOJ can and has actively participated in the STB rail merger review proceedings. The STB is statutorily charged to address both rail competitive issues and make a broader determination of whether a transaction is in the public interest. The STB includes consideration of operating, service and environmental effects of proposed rail industry consolidation transactions in an extensive review and approval process. There is no reason to add to this already extensive review process another layer of regulatory and legal review. There is no reason for such multiple, duplicative review of rail merger transactions, although we do not object to DOJ review itself if it were the sole reviewing agency.

Question 3. To what extent do capacity constraints impede the rail industry?

Answer. Railroad capacity is a function of a myriad of inputs, including tracks, rolling stock, yards, repair facilities, customer support capabilities, dispatching and signal technology, equipment and infrastructure maintenance levels, and workforce productivity. All these factors, together, determine the amount of freight railroads can handle and the service levels that can be provided.

Many of the elements that determine rail capacity have long service lives and. are not mobile. As a result, as demand for rail service declines in certain markets and increases in others, most elements of capacity can't be relocated from the area of declining demand to the emerging growth area. As a result, the network doesn't have as much capacity as is needed in high growth markets like the Midwest-California intermodal lane, but there is excess capacity in certain declining markets.

In the broadest sense, market-based pricing mechanisms are utilized by carriers and shippers to balance rail capacity and shipment volumes. Rail rates decline when excess capacity is available, and they increase as the network fills up. In the short term, factors like floods, derailments or other disruptions sometimes cause congestion problems, ranging from a few days to a few months. But over the longer term, since both rail prices and the number of miles of track in the nation's rail network have been declining, most rail industry observers and Wall Street analysts would agree that the industry's problem is too little business, not too much.

Today, primarily because of the high level of capital spending by railroads over the last several years, the mainlines of the Class I railroads and their cars and locomotives are in excellent operating condition. The result has been steady improvements in both safety and customer service levels. The question for the future, however, is whether railroads will be profitable enough to justify making investments to handle projected future growth. If rail industry profitability is inadequate to justify such investments, more freight will be carried on the.highways. and waterways, and the amount of government subsidy for these modes will increase correspondingly.

Question 4. Railroads, like other businesses including utilities, chemical manufacturers, and agriculture, need incentives to invest in their operations in order to improve their services and products. Yet there is concern that in the effort to provide rate relief to captive shippers and mandate rail-to-rail competition where none has existed, we run the risk of reducing incentives for railroads to reinvest in improving their service and expanding capacity. What are your views on these possible risks?

Answer. Railroads are a very capital intensive business, and already face pervasive competition, not only from other modes of transportation, but in the case of the shipper served by one railroad, product, geographic and source competition. Programs to mandate lower rates or mandate additional rail-to-rail competition run a tremendous risk of destroying incentives for investment in rail industry.

Congress and the ICC/STB historically recognized that the shift to a demand-based pricing system required the adoption of measures designed to protect shippers when competition is found to be inadequate or there is a risk that market power will be abused. For instance, the STB's competitive access regulations enable a shipper to secure access to a second carrier if it is shown that the existing carrier has abused its market power through its rates or service. Further, the STB rules provide a mechanism for determining maximum reasonable rates where a rail carrier is "market dominant".

Continued improvements in the industry infrastructure and service can only be achieved through continued capital investment, and investment can be attracted only by maintaining the current demand-based pricing structure. If railroads are not given the opportunity to recover, and achieve a fair return on, their investment costs, they will not attract the capital necessary to invest in track construction and maintenance, to upgrade yards, and to undertake other infrastructure and service improvements required to keep them competitive. The service and safety improvements which have been achieved also cannot be maintained and expanded without continued massive capital investments.

While rail continues to be the cheapest and safest form of transportation for most goods, it has achieved that because of our ability to invest. Anything that interferes with the ability to attract capital would lessen our ability to be the lowest cost and safest provider of land transportation services.

Question 5. The concept of "open access" is sometimes recommended by rail shipper groups—although not all shippers—as a means to generate competition. (a) How would open access affect the rail industry's incentive to invest in infrastructure? (b) How could differential pricing be carried out in an open access environment?

Answer. We believe forced rail access would undermine investor confidence and reverse the post-Staggers trend of relatively improved earnings, enhanced financial stability and increased investment. Forced rail access would also increase regulatory uncertainty and market risk and would undercut growth expectations and very like-

ly reduce expected rail earnings. Each of these would in turn chill the enthusiasm of investors and drive their capital to other uses, adversely affecting the rail industry's incentive and ability to invest in infrastructure.

Moreover, forced rail access would reverse many of the network and system efficiencies brought about by the Staggers Act. The pre-Staggers regulatory scheme effectively compelled the railroads to operate numerous inefficient routes. They were unable to concentrate traffic on the most efficient routes and gateways, and their ability to compete was diminished. Staggers reversed that system and allowed the railroads to invest in a streamlined and much more efficient and competitive network. Forced rail access would result in the breaking up of a nationwide network of single-line and run-through train service and efficient blocking in favor of a splintered, slower and less competitive service with inefficient car utilization and supply. This would not generate sound and healthy long-term competition.

An open access environment brought about by government mandated programs would be fundamentally contrary to differential pricing. Differential pricing is pricing of services based upon the demand for those services, so that different customers pay rates which yield different contributions to fixed costs based upon the different demand characteristics of those market sectors and movements for that rail service.

Under a system of forced rail access, the Surface Transportation Board, or some government entity, would have to reinject itself into the ratemaking process, establish the priorities for and the terms and conditions for allocating rights to use tracks, and, in short, reverse the deregulatory direction of the Staggers Act and the progress it fostered.

Question 6. At least two of the witnesses on the next panel will comment about the Federal subsidy discrepancy between the rail industry and its competitor modes. What are each of your views on this? Is the rail industry seeking a Federal funding program similar to the highway trust fund?

Answer. Longstanding inequities between government tax and user fee policies have distorted markets for freight transportation and played a significant role in the relative decline the rail industry has experienced over the last several decades. While railroads pay essentially 100 percent of the costs associated with building and maintain their networks, the most recent USDOT study of highway user costs confirmed that motor carriers pay only about 66 percent of their costs for using highways, and our own analysis has determined that barge operators pay only about 12 percent of the capital and operating costs of the inland waterway system.

The efficiencies of railroading are not great enough for our industry to overcome these inequities, except in limited circumstances such as with especially heavy commodities like coal or grain, or in very long haul, high density intermodal lanes.

There are essentially two alternatives for correcting this situation and level the playing field between modes. One is to increase the user fees paid by truckers and barge operators so they are in line with the costs of building and maintaining their infrastructure. The other alternative is to provide railroads with a level of support that is, at least in theory, comparable to the subsidy received by the modes we compete against.

A trust fund for railroads, funded by rail industry contributions, would not resolve this inequity, nor would it have the implied effect of increasing the amount of capital available for investment in railroad infrastructure. Basically, such a fund would merely redistribute rail industry investment capital in a politically influenced environment, compared with the market-based methods now used to determine railroad investment levels.

The first step in the process of achieving modal equity should be relieving the railroads of the inequitable 4.3 cent deficit reduction diesel fuel tax. The second step is to provide railroads relief from the onerous burden of the Railroad Retirement system. Next, over the longer term, railroads will need pubic financing assistance that offsets the public benefits associated with investments in rail and rail related infrastructure. Many, if not most, rail freight projects provide demonstrable public safety, congestion, environmental, and economic benefits, so such assistance is justified.

Resolving the modal equity dilemma in the freight transportation industry is going to be a difficult process. The modes that currently benefit from inequities are certain to stridently resist any increase in the user fees they pay, and even simple "first steps" like fuel tax and retirement relief are proving difficult for our industry to achieve. The longer we wait to take action, however, the weaker the railroads will become, as the level of infrastructure investments declines, and as capacity shrinks, one branch line at a time. Eventually, America could be left with a suboptimally sized rail network, and more and more traffic will be forever transported on heavily subsidized modes.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. GORDON SMITH TO WILLIAM J. RENNICKE

Question 1. Policy changes: What would be the most beneficial policy change Congress could adopt to improve rail transportation?

Answer. The most critical action Congress could take at this juncture is to "cause no harm." Anything that jeopardizes the rail industry's ability to generate an adequate return on investment will put the efficiency, safety, and sustainability of the U.S. freight rail industry at risk. This applies not only to potential regulatory change, but equally to any extension of the privileges accorded commuter rail interests, if these were to exceed the current arrangement of arms-length, private sector negotiations between interested parties. No legislation should be enacted which will adversely impact the freight rail industry's ability to handle not only existing traffic, but the huge increases in freight demand anticipated in the coming decades.

More specific areas for Congressional action would include reform of the Railroad Retirement System ($400 million cost reduction per year with greater benefits for retirees) and repeal of the 4.3 cents per gallon "deficit reduction" fuel tax ($170 million per year). Even more important is the establishment of parity among freight transportation modes under the law. Trucks (and, to a lesser extent, barges) should be encouraged to pay the costs of construction, maintenance, and damage caused on their behalf. Incorporation of an even-handed philosophy into transportation policy would serve to ensure that decisions are made on the basis of economic realities and overall social good.

Question 2. Subsidy options: What is being recommended to remedy the Federal subsidy discrepancy between the rail industry and its competitors? Do you want to create a rail transportation trust fund supported by the users—in this case the rail shippers—similar to those for highways and aviation?

Answer. What I am recommending is that the playing field be leveled: Either stop subsidizing motor carriers or provide similar subsidies for rail. I would not want to see new taxes or government-administered trust funds imposed to provide such subsidies, however, as overhead and administration of such funds typically consume much of the tax revenue. Such taxes can also cause misallocation of economic resources in the inevitable political battling for funding. The railroads have shown themselves to be efficient administrators of the limited Federal funding that has thus far been injected into projects with clear public benefits, such as highway grade crossing elimination, investment in the Alameda Corridor to relieve port and highway congestion, and institution of commuter operations (where capacity exists and arrangements are mutually agreeable between the parties).

Question 3a. Future operational/productivity gains: Are there future operational improvements to be gained from additional consolidation in the rail industry?

Answer. Additional consolidation in the rail industry would still yield future operational and productivity improvements, although on a percentage basis these would not be as large as in the past. More extensive alliances with non-railroad partners such as vendors and financial institutions would also enhance productivity. As large as the current Class I railroads are, many of the functions they carry out are subscale and could be made more efficient through integration with the subscale functions of other railroads. For example, each railroad has a car movement and train control system that is large enough to serve the entire industry. Consolidation of these activities could marshal scarce funds into fewer, more comprehensive systems. The efforts of the six largest North American railroads to introduce greater efficiency into the railroad supply chain through their creation of RailMarketplace.com is one example of consolidation efforts that benefit both buyers and sellers of rail products and services.

Question 3b. If railroads fail to make further operational improvements, what will be the impact on customers?

Answer. The railroads must continue to make significant operational and productivity improvements to offset declining revenue per ton-mile. If productivity stagnates, railroads will be forced to increase their prices or to consume capital funds that would normally be invested in the network. If railroads cannot fund investment in the network, the condition of the industry will likely deteriorate to that of the difficult pre-Staggers Act period. However, because cost efficiencies and further productivity will be incrementally more difficult to achieve, growth in railroad traffic will be an even more critical element in the future health and sustainability of the freight railroad industry.

Question 3c. Is there capacity in other modes to make up for a lack of quality service by railroads?

Answer. In the long term, other modes have and will continue to provide service to customers where railroad quality stumbles. The overall capacity of the motor car-

riers and the highway system, however, is not sufficient to serve as a substitute means of transport for any significant portion of the huge volumes of bulk commodities carried efficiently by rail. Furthermore, it should be noted that rail users represent a wide spectrum of customers—from those who prefer to pay very low transportation rates for service that may be less than optimal, to numerous groups of rail shippers who demand—and get—fast and highly reliable rail service. While there are multiple transportation modes that may at times provide better service, none are able to do so at the very low prices offered by rail—it is a well-known fact that North American freight railroads provide some of the lowest cost transportation in the developed world. Many rail users, such as coal, ore, and other extraction-oriented businesses, have become accustomed to and dependent on highly reliable and efficient rail "shuttle" services—these have become the norm.

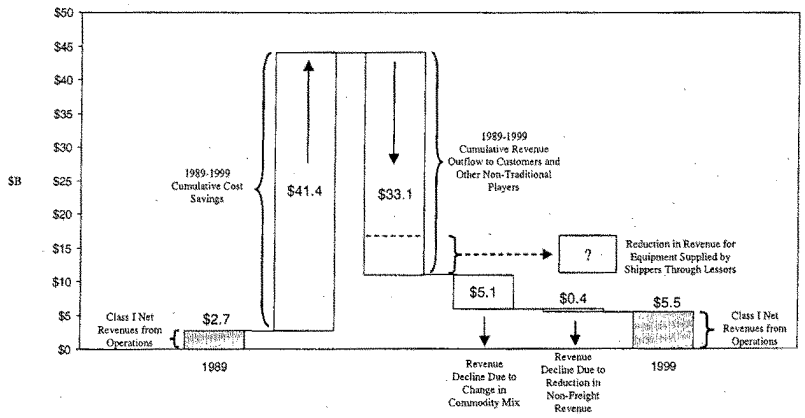
Question 3d. Under current conditions can railroads continue to attract the investment needed to . . . grow the system to meet the predicted increase in demand over the next 25 years?

Answer. Railroads' current ability to attract new investment is already quite tenuous, as investors require a stable, predictable regulatory environment in which investment risks can be clearly understood. If greater uncertainty creeps into the business and regulatory environment, funds will either flee to lower risk opportunities or the cost of the funds will increase. If, however, railroads are allowed to continue to use differential pricing to manage revenue yields, and the government is open to the development of new industry structures and alliances with third parties, then sufficient funds are likely to continue to flow into the rail sector.

Question 3e. When productivity gains have been made, who has benefited—the investor or the customer?

Answer. As a net effect of productivity gains, railroads have been able to substantially reduce their costs, with nearly all of the benefits going to customers. Over 80 percent of productivity gains/cost reductions since 1989, as shown in Exhibit 1, have been shared with or returned to customers, suppliers, and other transport companies (e.g., ocean carriers) in the form of rate decreases.

Exhibit 1. Rail Industry Productivity Gains/Cost Savings (billions of 1999 dollars)



Note: Revenues and expenses are adjusted by chain-weighted GDP price index.

Source: Association of American Railroads; Statistical Abstract of the United States; Mercer analysis.

Question 4. Competition: In conducting your research on the rail industry, have you seen evidence of decreased competition (as a result of recent rail mergers), and if so, to what extent?

Answer. In the work Mercer does for shippers and carriers in all modes, we have observed very little reduction in rail-to-rail competition. If anything, the mergers have accelerated sustainable competition. For example, the Southern Pacific (SP) was a very weak competitor to UP and BNSF. It is unlikely in the long run that it could have continued to be a viable competitor. As a result of the merger of SP with UP, however, service at SP competitive points has been significantly strengthened and on balance the competitiveness of rail has increased. As presented by Mr. Davidson of UP at the hearing, competition is not simply a matter of having two (or more) rail carriers at common points. Locating at single service points on a strong railroad is far more preferable for shippers than locating at points served by

two or more carriers where the carriers are weak or single line networks do not function efficiently.

Question 5a. Traditional sources of productivity improvement/mergers: Can you explain what you mean by "traditional sources" and how the railroad industry has used them?

Answer. "Traditional sources" of productivity improvement are those that have been available to the railroads since passage of the Staggers Act, including reducing the workforce (and increasing output per employee), shedding excess track and rollingstock, increasing the traffic density per mile operated, and improving the fuel efficiency of locomotives. We are now, however, beginning to bump up against the physical and technical limits of many of the activities railroads have used thus far to reduce costs, and future cost takeouts will be increasingly more difficult to attain.

Question 5b. Do "traditional sources" include mergers?

Answer. Consolidations, mergers, and increased coordination among railroads have been major sources of productivity improvement in the past. Mergers however are now becoming much more difficult to get approved and the benefits that can be realized from them are growing smaller. The BNSF/CN merger would have introduced new levels of service and productivity into the NAFTA environment, but would not have led to significant reductions in personnel, track, or rollingstock.

Question 5c. How have the numerous rail mergers impacted productivity in the rail industry?

Answer. While it is difficult to develop a precise estimate, it is likely that mergers since 1980 have created the possibility for approximately 25-50 percent of all savings realized by U.S. railroads. For example, the Kansas City terminal area involved a complicated set of multicarrier networks and operational processes that were very expensive to operate, yet often provided very poor service to customers. Control of the terminal by just the current two carriers, BNSF and UP, has led to efficiency and service improvements that could only be dreamed of in the past. The Senator and the Committee may wish to look at the private investment and intercarrier coordination that have been achieved at Kansas City since the mergers. There are also many new productivity and efficiency initiatives being undertaken by BNSF and UP in the West and by NS and CSX in the East. In addition to the two CEO witnesses at the hearing (BNSF and UP), you may wish to ask David Goode (CEO of NS) and John Snow (CEO of CSX) to comment on the productivity and network coordination plans they have underway.

Regulation often stands in the way of productivity—to everyone's loss. For example, NS wanted to close a highly inefficient car shop in Hollidaysburg, PA, but was stopped by the STB. The problem is that business realities have changed: The car fleet is contracting and non-railroad leasing companies are, in many cases, becoming the most efficient providers of rail rollingstock. In the end, the cost of keeping a facility open will be determined by market dynamics and changing relationships. In this case, it would appear that any inefficiencies inherent in the operation of the shop are being borne by the shippers, who in essence are cross-subsidizing the employees and the community that is trying to keep the shop open. In advising the railroads and governments of other countries, Mercer has recommended closing many similar unneeded facilities, to the benefit of shippers and the economy.

Question 5d. Is there additional productivity to be gained from further mergers and, if so, to what extent?

Answer. Additional productivity gains could likely be realized from a further round of mergers. In any new merger, some of the traditional merger-related benefits always will be present; namely, the benefit of shorter routes between selected origins and destinations, the elimination of costly interchanges between carriers, consolidation of carrier organizations, etc. Proportionately, however, the gains that could be realized will be less than in prior mergers because the carriers are all much bigger and the synergies available to them are about the same. The next mergers will be increasingly end-to-end, resulting in fewer operating savings than side-by-side combinations. But while end-to-end mergers have much less effect on reducing workforce, track, or rollingstock, they do have a positive effect on the combined entities' ability to offer more streamlined and seamless service, thus benefiting customers and the economy as a whole, while improving rail's financial returns.

Over the near term, the ability of railroads to earn their cost of capital will become increasingly critical, as the industry faces huge capital investment demands for positive train control, intermodal facilities and access, upgraded and integrated information technology, more efficient "next generation" railcars and locomotives, and the expansion of capacity to meet the huge increase in freight demand commonly projected over the coming 10- and 20-year periods. Whether through mergers or some other means, railroads must find a way to continue to improve productivity

and financial returns—the consequences of failing to do so can only adversely effect everyone who uses or benefits from rail service.

RESPONSES TO WRITTEN QUESTIONS SUBMITTED BY HON. GORDON SMITH TO DR. ALLAN M. ZAREMBSKI

Question 1. What would be the most beneficial policy change Congress could adopt to improve rail transportation?

Answer. Given the capital-intensive nature of railroads, particularly their need to invest in the maintenance and upkeep of their infrastructure, as well as the additional capital required to improve service and handle future traffic growth, any programs that provide additional resources or reduce financial burdens will be helpful. For example, the Association of American Railroads has proposed repeal of the 4.3θ per gallon "deficit reduction" fuel tax. In the longer term, increased public funding of railroad improvements might be justifiable from a public policy standpoint.

In the case of the smaller short line and regional railroads, the need is for immediate capital assistance for the upgrade of their infrastructure.

Question 2. What exactly is being recommended to remedy this discrepancy [in subsidy received by railroads and their competitors]? Do you want to create a rail transportation trust fund supported by the users—in this case, rail shippers—similar to how the users of the highways fund the highway trust fund and air passengers fund the aviation trust fund?

Answer. While there certainly may be merit in creating a "rail transportation trust fund", it should not be financed by placing an additional burden on either the railroads or shippers, Doing so could further increase the discrepancy. An additional tax on railroad shippers to support the railroad industry could potentially drive traffic away from the railroads and thus in the long run have a negative impact.

The nation as a whole, however, may benefit from publicly funded improvements to railroad infrastructure that facilitate operation of high speed passenger trains, commuter trains, or simply expedite the movement of rail freight such as over the short lines which often are the primary rail transportation connection for small industries in rural territories. This latter case is clearly evident in the short line railroads' need for capital to upgrade their infrastructure to handle the new generation heavy freight cars being used by the Class 1 railroads.

Question 3a. Several of you discussed productivity gains made by railroads in recent years through both consolidations and service improvements. Are there future operational improvements to be gained from additional consolidations of the rail industry?

Answer. It has been argued that there are "economies of density" in railroading. As far as track maintenance is concerned, I believe these economies may have largely disappeared for the freight railroad industry, particularly on the higher density lines. In fact, there may be diseconomies as traffic density continues to increase. For example, on very high density lines track access is limited thus restricting the ability of the railroad to perform maintenance and resulting in increased maintenance costs.

Also, there is evidence of capacity constraints at a number of points on the rail network. This suggests that mergers undertaken in order to reduce physical plant and further concentrate traffic flows may have greater difficulty producing operational improvements and maintenance economies. There may, of course, be other justifications for mergers, such as increased efficiencies due to shorter routes and elimination of interchanges.

Question 3b. If railroads fail to make further operational improvements, what will be the impact on customers?

Answer. If railroads cannot fund necessary infrastructure investments, service and safety will suffer. Poorer service quality will result in lost traffic and lower revenue. Ultimately, if railroads fail to generate the resources necessary to maintain their fixed plant, the industry will require another major transfusion of capital, such as occurred when Conrail was formed out of a group of bankrupt Northeastern railroads.

Question 3c. Is there capacity in other modes to make up for a lack of quality service by railroads?

Answer. Zeta-Tech specializes in the railroad industry and has not conducted studies of capacity in other modes. But based on observation, it appears that other transportation modes, especially highways, lack the capacity to absorb traffic lost by railroads, thus the pressure to build more highways and to permit larger trucks.

The Association of American Railroads reports that the average train in 1999 had 69 cars[1] and carried 2,947 tons of cargo.[2] On average a truck carries about 30 tons of freight. Therefore, a 69-car train carries the load equivalent to that of about 100 loaded trucks. Put another way, a line with one million gross tons (MGT) of traffic (a very light tonnage typical of branch lines and short line railroads) sees about five average-sized trains a week—the equivalent of 500 loaded trucks per week or more than 70 loaded trucks per day.

Traffic volume on trackage owned by Class I railroads averages 12 MGT, the equivalent of approximately 860 loaded trucks per day. Clearly, if all rail traffic was to be handled on the highways, a very substantial investment in additional capacity would be required.

Question 3d. Under current conditions, can railroads continue to attract the investment needed to not only maintain the current system and provide safe and efficient service, but also grow the system to meet the predicted increased demand over the next 25 years?

Answer. The Zeta-Tech analysis established the need for heavy railroad investment simply to keep the existing freight rail network in a fully operational, safe, and efficient condition. I must defer to the railroads and Wall Street to answer whether railroads can earn enough or can continue to attract the needed investment.

As indicated by Mr. Rose of BNSF, at least some railroads are not now earning returns sufficient to justify investment in expansion of capacity. However, based on their revenues in the last decade, they do appear to be able to generate sufficient capital to met their current infrastructure needs, provided that this current level of return is not reduced.

Question 3e. When productivity gains have been made, who has benefited? The investor or the consumer?

Answer. While Zeta-Tech's expertise is in the engineering and costing arenas, I am aware of studies carried out by a number of academics, most notably Carl Martland of the Massachusetts Institute of Technology, which indicate that most of the railroad productivity gains of the past 20 years have been given to consumers. This is supported by the evidence presented to your Subcommittee about the downward trend in average rail rates over the past two decades.

Question 4. In conducting your research and analytical work in the rail industry, have any of you seen evidence of decreased competition and, if so, to what extent?

Answer. Zeta-Tech's area of practice is limited to engineering, operations, and transportation cost analysis. We do not analyze the competitive environment in which railroads operate.

Question 5. You note in your findings that short lines were in relatively poor condition when they began operations. Further you note that your findings show that these lines are now in need of a great deal of attention in order , to continue to work with the heavier load weights now being carried by the Class 1 lines. In your opinion, can the short line and regional railroads make the necessary repairs and upgrades to meet the heavier load weights on their own?

Answer. Short line and regional railroads for the most part lack the resources to make large investments in their track structure. While there are exceptions, most short line and regional railroads will require outside funding if they are to be able to perform upgrades necessary to safely handle the new generation of 286,000 lb. cars. Zeta-Tech has determined that the approximately 550 short line and regional railroads. require $6.9 billion to upgrade their track and structures to be able to handle these heavier freight cars on a long term basis.[3]

In terms of money available to maintain track, Class I roads receive, on average, approximately $269,000 in revenue from each mile of track; the short line and regional industry receives only about $60,000 per mile, less than 25 percent of the Class I revenue. Given this revenue constraint, and noting that the $6.9 billion upgrade cost works out to $138,000 per mile,[4] this level of investment is beyond the current capability of the short line and regional railroad industry. There is little likelihood that short lines could finance these necessary track upgrades or improvements without foregoing other necessary expenditures. Many of the short lines will be altogether unable to make the necessary investments in track.

Question 6. You found that it is going to cost the short line rail industry roughly $6.9 billion to make the repairs and upgrades needed. How would such expenditures

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[1] Loaded and empty cars.

[2] "Yearbook of Railroad Facts 2000", (Washington: Association of American Railroads)

[3] Carl D. Martland, "Sources of Financial Improvement in the U.S. Rail Industry, 1966-1995", Proceedings of the 39th Annual Meeting, Transportation Research Forum (1997).

[4] Based on 50,000 track miles of short lines and regional railroads.

impact the short lines' current maintenance schedule and their ability to finance other capital costs such as rolling stock?

Answer. Many short lines have only limited resources to expend on maintenance of track and rolling stock. This is evidenced by their average revenue per track mile which is less than ¼ of that of the Class 1 railroads. With their limited revenue per mile, most short lines only have sufficient resources to maintain track in safe condition for lower speed operation (typically 25 mph or less). Given that short lines are often capital limited, to attempt to undertake major trackwork upgrades would deplete their resources and significantly limit their ability to finance other capital costs such as locomotives and cars.

Question 7. To what extent would the $350 million as proposed under H.R. 1020 actually be able to meet the infrastructure investment needs, given the projected overall need?

Answer. The $6.9 billion figure developed in Zeta-Tech's study for the American Short Line and Regional Railroad Association covered the upgrade of all short line and regional railroad trackage to standards necessary for 286,000 lb. cars. Even if the money were available immediately, an upgrade of this magnitude would require many years, since track materials simply are not available in quantities sufficient to perform this work immediately. Given this, the $1.05 billion ($350 million per year for 3 years) in H.R. 1020 is certainly a valuable start, and will allow short lines to address some of their most serious track deficiencies as well as their highest priority routes. However, this total of $1.0.5 billion will only be enough to perform perhaps 15 percent of the necessary work.

Continuation of this level of spending will be necessary to completely rehabilitate short line trackage within the constraints of material and workforce availability. Alternatively, the additional capital could come from other programs such as the Railroad Rehabilitation and Improvement Financing (RRIF) loan program which was passed by Congress in 1998 and which provides loans and guarantees for railroad infrastructure and equipment projects. When these loads are implemented, they will also help meet these railroad infrastructure investment needs.

RESPONSES TO WRITTEN QUESTIONS SUBMITTED BY HON. GORDON SMITH TO KEVIN D. KAUFMAN

Question 1. What would be the most beneficial policy change Congress could adopt to improve rail transportation?

Answer. Approach policy decisions for surface transportation on an intermodal basis, which is not to say that Federal policy should ignore intramodal issues, but is recognition of the fact that financial policies for one mode of surface transportation directly impact the economics and performance of other modes. As explained in response to Question (2) below, the extent of public financial support and subsidies for the truck industry directly impacts the ability of railroads to compete for a significant part of their potential traffic base.

Question 2. At least two of the panelists, Mr. Valentine and Mr. Kaufman, discussed the Federal subsidy discrepancy between the rail industry and its competitors. What exactly is being recommended to remedy this discrepancy? Do you want to create a rail transportation trust fund supported by the users—in this case rail shippers—similar to how the users of the highway trust fund and air passengers fund the aviation trust fund?

Answer. A rail transportation trust fund supported by rail users—shippers—is not appropriate or similar to a highway trust fund concept, supported by highway users, because rail rights-of-way are privately owned whereas highways are publicly owned and are used by non-commercial tax payers.

Nevertheless, railroads today face funding inequities which should be corrected. They are, for example, charged a fuel surcharge that goes directly into the Highway Trust Fund. The Federal Government budgets and spends billions of dollars per year for the improvement of highways and bridges. While commercial motor carriers are by no means the only beneficiaries of these public expenditures, it is apparent that truck lines are not called upon to pay the full share of their public highway and bridge costs, as railroads must pay the full share of their road and bridge costs.

We would propose (1) that the fuel surcharge paid by railroads into the highway trust fund be rescinded and that trucking companies be charged a per mile user fee (perhaps based on axle odometers installed in each truck) calculated to return the full cost of highway construction, maintenance, and improvements attributable to commercial use.

Question 3a. Several of you discussed productivity gains made by railroads in recent years through both consolidations and service improvements. Are there future

operational improvements to be gained from additional consolidations of the rail industry?

Answer. There may be some gains for the railroads, but not as many as when prior mergers eliminated redundant routes. Today, there are fewer redundant routes capable of elimination, except at the potential sacrifice of the rail industry's ability to meet future growth possibilities. The market's declining valuation of railroads following the last two major mergers suggests a belief by investors that there are limits on remaining operational benefits from prior mergers.

Question 3b. If railroads fail to make further operational improvements, what will be the impact on customers?

Answer. The failure of railroads to achieve further operational improvements is likely to have adverse impacts on both railroads and their customers. Many facets of rail service today are unpredictable, thus increasing customer costs in the form of larger inventories or excess rail car inventories (railroad customers supply the majority of freight cars in use). Improved operations will similarly reduce railroad labor and power expenditures and improve the ability of railroads to attract additional business. In fact, if railroads do not make further operational improvements, which I am convinced they are capable of doing, their market valuations are likely to continue to reflect that condition.

Question 3c. Is there capacity in other modes to make up for a lack of quality service by railroads?

Answer. There are extensive limitations on railroad substitutes if efficiency and environmental impacts are factored in. For example, a truck is technically capable of transporting 25,000 tons of coal from the Powder River Basin to an electric generating facility in Illinois, but it takes four trucks to replace one rail car, with the attendant consequences on cost, highway maintenance, and air pollution. Barges are perhaps environmentally and economically preferable to rail, but are limited geographically. Air is essentially not a competitor of rail.

Question 3d. Under current conditions, can railroads continue to attract the investment needed to not only maintain the current system and provide safe and efficient service, but also grow the system to meet the predicted increased demand over the next 25 years?

Answer. Perhaps. The Class I railroad industry clearly is moving toward a high density configuration, concentrating operations on a limited number of mega-routes. Technological advances may improve their ability to utilize those routes more efficiently than at present, but not without substantial investments. To fund that investment, railroads must be able to provide a competitive return, which in all likelihood means attracting additional traffic to fully utilize the route structure. If the area of greatest revenue potential for railroads is traffic now moving by truck, as many experts regard to be the case, and if trucks have a cost advantage because the Federal Government is subsidizing their infrastructure, railroads should continue to suffer an erosion of their capital base, all things being equal.

Question 3e. When productivity gains have been made, who has benefited? The investor or the customer?

Answer. Clearly, the railroads themselves have benefited, as indicated by market values prior to the service failures of the late 1990s. Customers also have benefited from either rate reductions or slower levels of rate increases, although there is some debate over whether at least some customers have seen their total transportation costs rise as a result of supplying and increasing proportions of rail-related investments, such as freight cars and storage tracks.

Question 4. Some rail industry observers have asserted that instead of resulting in productivity gains, recent rail mergers have resulted in decreased competition for customers. In conducting your research and analytical work on the rail industry, have any of you seen evidence of decreased competition and if so, to what extent?

Answer. I believe that rail productivity gains are as much a result of the interstate highway system and transportation deregulation generally as they are of rail mergers, although, by eliminating redundant rail routes, mergers no doubt have improved rail productivity. Railroads had to become more efficient in order to compete with motor carriers using the interstate system. Before rail deregulation, virtually all rail rates were set collectively within the rail industry, and the law instructed the Interstate Commerce Commission to pass through all labor increases in the form of high rail freight rates, so that there was virtually no incentive for improved efficiency within the rail industry. Deregulation and mergers made the railroad industry conscious of the need to be competitive with the motor carrier industry.

Consolidation among competitive rail carriers by definition leads to less intramodal route competition, so that there should be many examples of less competition between rail carriers as a consequence of rail mergers.

Mergers may also impact the level of intermodal competition, depending on the nature of the merger. Western rail mergers seemed to have strengthened the ability of the surviving carriers to offer improved intermodal service, competitive with trucks, whereas the eastern mergers seem to have resulted in little shift of traffic from trucks to rail.

Merely to say that there has been a loss of competition following a merger is not sufficient to describe the consequences of that loss. Rail mergers have the potential to impact rates, service, and market reach. Rates sometimes are increased after mergers, but those increases in some cases are not borne by the railroads' direct customers and instead are passed through to raw material suppliers or end products purchasers. Rate increases which cannot be passed through are those designed to affect the flow of traffic—those higher rates designed to constrain the movement of traffic from or to the lines of the merged carrier where that carrier believes that its profits can be maximized in that fashion. These steps may well be difficult for some customers as their choices of source competition or markets are curtailed.

Service is the third area of merger consequence, and mergers have had a varied impact in that area. For some, mergers improved service by expanding access to points of supply or consumption, and enabled a carrier to institute innovations such as contract trains which operate continuously between various points on the carrier's expanded system. However, where the carrier does not have the incentive to provide such service or the market it serves is not susceptible to such innovations, mergers in fact may produce worse service.

Question 5. You stated, "industry sometimes behaves as if it has the obligation to supply equal service for all consumers, no matter their relative economic cost, and, on the other hand, is required to fully pay for the investment and incremental operational cost." You then go on to argue that government must change its policy toward other modes in order to correct his behavior.

Please explain how you believe a change in government policy toward other modes will cause railroads to make sound economic business decisions?

Answer. The competitive disadvantage to rail resulting from governmental subsidization of motor carriage requires railroads to charge lower prices in order to meet subsidized motor carrier rates than railroads would have to charge if motor carriers lost some or all of their subsidy and charged higher rates as a consequence. From these depressed rail rates, railroads must pay the full measure of the infrastructure and operating costs.

The rail industry has responded to these circumstances with decisions that are sound in relation to their premises, but are not always welcome by all rail customers. My point is that, if rail rates, at least for the 21 percent of rail volume that consists of intermodal traffic, can rise as a result of changes in government policy toward motor carriers, then there will be a different set of premeses to guide railroad decisionmaking, and a different set of sound business judgments is likely to emerge, perhaps less objectionable to other segments of the railroad' customer base.

RESPONSES TO WRITTEN QUESTIONS SUBMITTED BY HON. GORDON SMITH TO DR. HARVEY A. LEVINE

Question 1. What would be the most beneficial policy change Congress could adopt to improve rail transportation?

Answer. Congress should recognize that the freight railroad industry in the United States has been re-monopolized to the point where four railroads control over 95 percent of the industry's traffic. At the same time, while deregulation has served the interests of competitive markets, rail-dependent customers have been adversely affected by the increased concentration of power within the rail industry. While the ultimate remedy for this chasm may be a more competitive sharing of the railroad infrastructure, Congress can even the playing field between railroads and their dependent customers by: (1) eliminating the regulatory provisions of the Staggers Rail Act—specifically the ones addressing maximum-rates, and (2) adopted a Final Offer Arbitration provision similar to the one that exists in Canada. Railroad rate disputes could then be handled by arbitrators within a 60-day timeframe and the STB jurisdiction in this area would be eliminated. The Final-Offer-Arbitration mechanism is timely, relatively inexpensive, and a producer of reasonable offers from both the railroads and shippers. Its adoption would help to significantly reduce the anguish of rail-dependent customers.

Question 2. **???**

Answer. I did not discuss Federal subsidies for railroads and I do not believe in them. If railroads are to be compared with highways, then the industry should open access to competition.

Question 3a. Are there future operational improvements to be gained from additional consolidations of the rail industry?

Answer. If so, these are probably marginal and would be far outweighed by the reduction in transportation competition. The ICC and STB have gone too far already in reducing railroad competition through mergers of Class I railroads. The ultimate end game of such a policy is a one or two-railroad system either heavily regulated or completely controlled by the Federal Government.

Question 3b. If railroads fail to make further operational improvements, what will be the impact on customers?

Answer. Railroads must bring their technology into the 215' century. Failure to do so will deprive dependent customers of adequate service and reasonable rates. Customers in competitive markets will continue to flee to motor carriage and other options. Operational improvements can be induced by competition.

Question 3c. Is there capacity in other modes to make up for a lack of quality service by railroads?

Answer. No. The highways will never be able to handle long-distance, bulk movements such as coal, without huge negative consequences for the nation's standard of living, environment, and energy use. Highways are already congested and it should be a national transportation policy to fully utilize the large capacity of our nation's railroads—without public subsidization.

Question 3d. Under current conditions, can railroads continue to attract the investment needed to not only maintain the current system and provide safe and efficient service, but also grow the system to meet the predicted increased demand over the next 25 years?

Answer. If by "under current conditions" means that railroads will not change their culture and attitude, then their ability to attract needed capital is somewhat dubious. Railroads are by nature more efficient for long-haul traffic then their motor carrier brethren, and can readily attract needed capital by meeting customer needs. This requires a devotion to customer interests, the realization that dependent customers are legitimate complaints, and the elimination of a "win-at-all-cost" mentality. The potential for railroad growth is enormous and such growth is in the public interest. While the public can aid this growth by eliminating man-made obstacles (like the archaic maximum-rate regulations), the key to the railroads' success is railroad management.

Question 3e. When productivity gains have been made, who has benefited? The investor or the customer?

Answer. This is not an either-or question. When the impact of the more recent railroad mergers are removed, it is clear that both railroads and their customers have benefited from productivity gains. Rail customers in competitive markets have enjoyed constrained prices and up through the mid-1990s, railroad investors were richly rewarded. Productivity gains will always be shared by producers (service providers) and their customers in competitive markets. It is the rail-dependent customers who should be at issue in regard to this question.

Question 4. Some rail industry observers have asserted that instead of resulting in productivity gains, recent rail mergers have resulted in decreased competition for customers. In conducting your research and analytical work on the rail industry, have any of you seen evidence of decreased competition and if so, to what extent?

Answer. I have not studied individual railroad markets with the purpose of measuring the relative degrees of competition. However, it is clear that over the past 5 years, shipper complaints about inadequate rail service and railroad arrogance have greatly increased—witness the letter of more than 250 shipper executives to Congress seeking more market competition. Overall, the increased concentration of power among just two railroads each in the East and West is evidence of reduced railroad competition.

Question 5a. You point out in your testimony that annual reports to the SEC, the STB, and private investors, while all focused on financial performance, often project completely different pictures of a railroad's annual performance. Can you explain how you came to that conclusion and what is the impact on investors and regulators?

Answer. In my work, I constantly examine the railroads' annual reports to investors, the SEC, and the STB. One can't help but notice that not infrequently, railroads boast to investors that they are revenue adequate and attractive investments, while at the same time, the STB declares them to be revenue inadequate. A most striking example is the Union Pacific Railroad in the year 1996. The railroad informed its investors of record profits that year and informed the SEC that it was rewarding its executives with maximum incentive compensation (bonuses, stock grants, stock options, etc.) At the same time, the railroad's earnings were so substantial in 1996 that it established a surplus fund from which to reward executives

in 1997, if in that year, earnings' thresholds were not met. And yet, the STB found the railroad to be revenue inadequate in that year. Obviously, the railroads' themselves do not believe in the authenticity of the STB's revenue-adequacy determination, for it has not produced results consistent with management's assessment in a number of instances.

Question 5b. Can you explain how the differing information provided to the SEC and the STB is used?

Answer. Information to the SEC is used in the same way as other corporations in the United States—to measure compliance with national requirements. The STB's use of the information is for the most part, limited to railroad costing and as part of the revenue-adequacy determination. The major difference between the two reporting systems is that the STB report includes detailed reporting of railroad expenses by a multitude of categories, therefore lending itself to cost estimations for the purpose of rate regulation.

Question 6. In regard to rail transportation, what is the more serious problem—inadequate shipping capacity or inadequate competition?

Answer. I believe that inadequate competition is the more serious problem. Railroad capacity constraints seem to be caused by problems with throughput at certain terminals—a correctable and probably, temporal—condition. In other countries, railroad track is much busier than in the United States, although the traffic is mainly of passenger trains. Still, even the main-line track in this country is characterized by relatively infrequent train movements. Furthermore, railroads have been reducing their track capacity as a result of mergers and acquisitions. This is akin to a self-fulfilled prophecy. On the other hand, as discussed above, the lack of railroad competition is at the root of shipper complaints, inadequate service, and poor responsiveness to shipper needs.

1. THE RAIL INDUSTRY SINCE DEREGULATION: FINANCIAL PERFORMANCE OF CLASS I RAILROADS

While higher than in 1999, operating ratios for all of the remaining "Big Four" Class I railroads was positive in 2000, ranging from 77 to 94 percent.

1999/2000 Selected Measures for Big Four [1] Class I Railroads

Company	Operating Revenue ($million) 1999	Operating Revenue ($million) 2000	Operating Ratio 1999 [In percent]	Operating Ratio 2000 [In percent]	1999/2000 Oper. Ratio Change [In percent]	Number of Employees 1999	Revenues per Employee 1999	Freight [millions of tons originated] 1999
UP	$9,987	$10,539	82.3%	82.8%	0.6%	53,306	$187,352	453
BNSF	$9,094	$9,200	75.8	77.1	1.8	42,659	$213,179	440
CSX	$5,623	$6,075	92.3	94.7	2.6	32,023	$175,593	378
NS	$5,195	$6,159	90.4	92.0	1.8	30,897	$168,139	270
CR [1]	$1,516	.....	82.3	N.A.	N.A.	8,260	$183,535	56
Big Four	$31,973	$31,415	N.A.	N.A.	N.A.	167,145	$187,951	1,597
Class I Railroads	$33,521	N.A.	83.6	N.A.	N.A.	177,557	$188,790	1,716

Note: R-1s for 2000 are not available for all railroads.
Source: Company Annual R-1 reports; Association of American Railroads, Railroad Facts 2000 Edition, Mercer analysis.
[1] Conrail figures are through May 1999. The last 7 months of 1999 are reflected in NS and CSX data.

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