

The Carload Freight Challenge

The Impact on Shippers and Short Lines

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Transportation Clubs International
Cherry Hill, New Jersey
September 15, 2006

This afternoon, I'd like to talk with you about a large problem that is worth trying to solve. That problem is how to make the rail movement of carload freight—merchandise freight—an attractive proposition for both shippers and carriers. There is a great deal of talk about different aspects of this problem, but, so far, a comprehensive solution has been elusive.

The difficulty of the task we face reminds me of a story in the newspaper about two weeks ago. A woman was pulled from her car after it collided with a house. Asked what was wrong, she said that the operator lost control. The police officer then asked who the operator was. She said it was her dog, that she was teaching him to drive. She, like us, may have underestimated the difficulty of her task.

I didn't realize how much talk there has been until I started to work on these remarks. It seems that someone gets into this subject with a major address, most more thoughtful than mine, about once a year and has been doing so for decades. With this wealth of precedent, I am indebted to Jim McClellan and Tony Hatch others for some of the facts that I have included here.

Let's start with definitions. Carload freight is essentially everything that doesn't move in unit trains, what many call "loose cars." This means not just paper and lumber and steel but also chemicals and some kinds of fertilizer and even some grain.

There is a negative way to look at merchandise and a very positive way. The negative way is what we talk about most. Loose cars require a web of service, a web of cost, and a web of capital investment that dwarf that which is required to run unit trains. Think of switch engines and yards and branch lines and crews and twenty-ton pieces of iron that get only one load a month. And, to some embarrassing extent, there is still clerical work involved. When the railroads add up these costs, they often conclude that they prefer unit train traffic. When shippers add up the costs and look at the service they get, they usually decide that they prefer trucks. If this continues, it will be bad news for those short lines that depend upon merchandise freight.

There are several things going on that reinforce the negative perception, especially increasing prices at a time when service has deteriorated. All railroads are increasing prices on merchandise traffic, often in the face of or resulting in traffic declines. CSX in the second quarter reported a 16% increase in merchandise revenue per unit and a 2% decline in units. Union Pacific increased Industrial Products revenue by 17% last year over the previous year, while

having a slight decline in the units handled and remarking that “rail demand exceeded supply.”

One of the limitations to rail capacity is equipment utilization. It has been axiomatic for as long as I can remember that you get one load a month in a box car. Even small improvements in utilization could produce large increases in return on invested capital. But recent results have not been good. Three years ago, several railroads created a boxcar pool to improve utilization. At the outset, the cars got one load about every 29 days. Now cars are being loaded about once every 31 days, a notable deterioration.

Adding to the problem is the fact that the railroads have been completely out of many merchandise markets for a long time and in a declining share in others.

Genesee & Wyoming established an overnight cross-dock boxcar service a few years ago on the West Coast. (The service was not successful because of warehouse problems). We started by hiring experienced railroad salesmen to develop the market. The “market” we targeted involved commodities moving by truck: lawnmowers, tuna fish, dog food, kitchen shelving, paint, you name it. The revelation was that none of the sales people knew anything about any of the potential customers. Those once-upon-a-time box car shippers have been

shipping exclusively by truck for over a generation. Rail share of this market was zero. We ultimately had to replace the railroad guys with truck guys.

Some years ago at Conrail we set out to design a truly truck-competitive service for auto parts. Part of the approach involved interviewing shippers about themselves and their work in general to try to find some deeper clues about issues that needed to be addressed. The revelation came from one traffic manager in Indiana who, after talking for half an hour about his job, leaned back in his chair and said, "My job? I guess my job is figuring out how NOT to use rail whenever possible."

These stories provide the underpinnings for some numbers that Tony Hatch threw out in a speech last year. He said that railroad revenue amounted to 1.7% of GDP in 1960, 1.0% in 1980, and 0.4% in 2000. And those numbers include coal and intermodal.

We can't go on this way. And we won't. Three years ago, I spent several months as the interim general manager of a large Australian railway that had been sold by the government. Before it was sold, the State discontinued ALL merchandise operations and operated the entire railway on a unit train basis. This is the unthinkable result that we face in North America if the characteristics of the rail merchandise freight model are not improved quickly.

So let's turn to the improvements that are needed. To be successful, rail merchandise traffic must be competitive in three ways. These "three competes" are Customers, Capital, and Capacity. Obviously, Customers have to find the service attractive, or they won't use it. But Capital is important, too, because the merchandise freight car fleet won't be replaced unless the assets produce a competitive return on the capital that is required. Most immediate, however, is capacity. Unless merchandise trains can produce margins that compete with unit trains, no rational carrier is going to allocate scarce train slots to the lower paying business. (If you doubt me, ride an Amtrak intercity train some time and see how successful a low-paying train is at gaining a slot. Then imagine your boxcar sitting on the same siding.)

The bright side of all this is that the railroad market share of merchandise is tiny. According to the Eno Foundation, trucks get 80% of US freight revenue and railroads get 10% (and that includes coal!). The opportunity for growth through merchandise share gain is enormous. This is in contrast to the unit train business, where the railroads have fully penetrated the market and can grow only as fast as the market itself grows. So it is merchandise traffic, loose car traffic, that offers the railroads the opportunity to become a true growth business once again.

The opportunity seems to be real. Mercer Management presented a paper for Northwestern University two years ago that tried to evaluate the

potential for revenue increases based upon modest improvements in service combined with the kind of information support that one takes for granted when dealing with any internet retailer or parcel delivery service. The short of it was that Mercer found the present value of combined higher prices and increased volume to exceed \$14 billion for the rail industry.

What are the railroads doing about this? There are a number of initiatives underway, and they are all important and useful. But, as we shall see, they will not by themselves create a foundation for merchandise carload growth. Start by thinking of the problem as having two parts: Cars moving slowly, and cars moving not at all.

A well advanced attack on the moving slowly problem is the “precision railroading” concept of Canadian National. CN says that “the precision railroad operates according to a trip plan for every railcar. This has led to reduced transit times . . . improved consistency . . . enhanced productivity . . . and enhanced network capacity.” The shipper benefits from “better service, reduced inventory and capital requirements, [and] reduced need for high-cost private fleets.” I choose this example first, because CN has a high proportion of merchandise traffic, yet achieved the unheard of operating ratio of 58.6% in the second quarter. This is one more indication that it CAN be done and that efforts to revive the merchandise business are worthwhile.

Another effort directed largely at the moving slowly aspect of the problem is work being done by Carl Martland at MIT for a number of short line railroads and Railinc. He will be presenting some preliminary findings and a proposal to the Short Line Association in Knoxville. Some of you may remember Carl as the guy who is beatified by alumni of Southern Railway and the Boston & Maine for developing blocking strategies that, in one case, pushed Southern ahead of the Family Lines in system efficiency and, in the other case, may have saved the B&M from liquidation in its pre-Guilford, pre-PanAm Railways days. The remarkable thing about Martland is his virtuosity: the blocking plans for Southern and the B&M were exactly the opposite. Southern was advised to hold cars until a train could be assembled for distant destinations bypassing intermediate classification. B&M, on the other hand, was advised to move cars to the next yard on the first available train to relieve congestion.

A project involving cars not moving is being pursued by BNSF and the Rail Committee of the NIT League. BNSF has observed that its merchandise cars spend 82% of their time standing still and that an important part of the problem is the variability of switching complexity by location. The "First and Last Mile" initiative hopes to improve switching efficiency. The two main subjects of attack are switching complexity and physical challenges. The first matter, switching complexity, involves things like reshuffling or respotting cars within a plant. Often fairly simple process changes within the plant can produce large improvements in the amount of switching time needed. The second matter, physical challenges,

includes such matters as track layout and unloading door placement and can require capital investment to fix. BN and shippers seem to be haggling over who should make such capital investments, but it is clear that the benefits in many cases are sufficient to ensure that the investment will eventually be made.

Another effort to look at why cars are not moving is being carried out by the paper industry in cooperation with the AAR. This year-long study is gathering data on a large number of movements and looking at all of the practices of the paper industry that might affect car velocity.

Bridging both the slow movement and no-movement issues is the overriding matter of primitive and overlapping information systems. Part of the problem, or perhaps a symptom, is “data transparency,” an issue involving car location that has been advanced by the governmental advisory group known as the Railroad-Shipper Transportation Advisory Council. The “transparency” issue really has two parts. One is that more car location information has been available on individual carrier websites than through the SteelRoads service of Railinc. The second is that the accuracy rate of reported data does not suit shippers, particularly on interline moves. A step toward solving this problem was taken earlier this year when the AAR commissioned Railinc to report by year end all events that are reported on individual road websites. And, yes, that part of the short line industry that is not making timely reports is going to have to get its act together for the good of us all.

Why is “data transparency” important to the merchandise freight business and not just a wonk issue for back-office people? There are two big reasons. First is cost. Right now, there is a three-layer system of reporting information that provides poor results at high cost. First is individual railroad websites. Many of them are excellent, but few shippers use a single carrier and cannot rely on a single website. Second is Railinc, which attempts to pull together some, but so far not all, of the information available from individual carriers. Third is third party vendors hire by the shippers to try to pull together the railroad information from diverse sources. All of these three layers impose real costs on the merchandise system that could be reduced with a unified reporting system.

So the first issue presented by lack of “data transparency” is cost. The second issue is quality. Because interline movement data are not collected and displayed in a uniform way, and because shippers must do this privately and internally for their own movements, there is no systematic interline effort to create the kind of interline service predictability that CN and BN are try to achieve internally. The first step toward interline service improvement will require open display of performance information.

If you doubt the importance of this, look at the Mercer study for Northwestern that I adverted to earlier. Shippers told Mercer that improved car information was more important to them that substantive improvements in service

quality and made a substantial contribution to that \$14 billion NPV of new revenue to the railroads that Mercer calculated.

The information disconnect reminds me of my grandmother. She had two telephones side by side in her dining room when the two telephone companies in Birdsboro, Pennsylvania, would not handle intercompany calls. Here we are ninety years later with similar dysfunctional arrangements between the railroads.

We see that there is a substantial problem with rail merchandise traffic. And a substantial opportunity. And we see that shippers and railroads are working on a number of projects to improve the performance of this still important part of our economy.

But my own view is that the work underway will not be enough. Some more unusual measures will be necessary if railroads can begin to gain share of the merchandise freight market and turn it into a true growth business.

Here are a few ideas. My intent is not to offer THE answers but to show that there are MANY answers that will have to be developed on a cooperative and empirical basis.

First, trip planning needs to be constructed on an interline basis as well as a local one. Once there are meaningful car schedules for all movements,

something can be done about departures from those schedules. I would point out as an aside that such interline schedules are going to require significant efforts on the part of short lines to participate in the scheduling. Some of this work is underway, but much remains to be done.

Second, comprehensive measure and display of both interline and local dock-to-dock transit times. Forgive my skepticism about the existing measures of “velocity” and “cars on line,” but I just don’t see that they have much to do with the needs of customers. Until there is a uniform and widespread measurement and display of dock-to-dock service, there will be neither an understanding of what service is nor a focused effort to improve it.

Third, some merchandise traffic may be susceptible to handling in unit trains, with shippers or short lines or third parties taking over responsibility for marketing and any assembly or disassembly of those trains that might be necessary. Farming out the ancillary services will make it much easier for Class I railroads to price merchandise service: A merchandise train slot can be valued and priced at the same level as the least valuable unit train slot, because the service will be the same. (Yes, I recognize the HUGE cultural barrier to pricing loose car traffic on a trainload basis, but remember that we are already there in the intermodal). business.

Fourth, the large railroads may find it desirable to pass on to others all of the car handling functions associated with merchandise. This includes local trains and the operation of classification yards. Rail labor could be expected to be wary of such arrangements, but the potential for traffic (and job) growth is such that eventually some measure of labor acceptance should be attainable.

Finally, and here is the zinger, the most important thing that can happen is to get two Class I CEO's motivated to improve their shared interline merchandise business. Once they succeed, others will follow. All of us need to consider how to find those two pioneer CEO's and persuade them to get the ball rolling. The payoff for them, the payoff for all of you, will be enormous.