

From the pages of Logistics Management

18th Annual State of Logistics Report: The new state of interdependence

By Tom Andel, Executive Editor -- 7/1/2007

Let's get this out of the way right now: The state of logistics is good. Yet if you look at that all important number—logistics costs as a percent of GDP—you'll notice that it's just a hair under the magic 10 percent mark. In fact, in terms of dollars, logistics costs in 2006 were \$130 billion higher than 2005, ringing in at \$1.31 trillion.

Higher transportation costs and higher inventory carrying costs, combined with moderating growth in the overall economy, pushed us to the edge of a double-digit figure. The last time business logistics went above 10 percent of GDP was in 2000. So how can we say the state of logistics is good?

Because now, more than ever before, logistics managers are working together with their carriers and service providers to make a difference in supply chain efficiency and security. This year's report contends that without the collaboration, innovation, and education that characterized logistics professionals in the past year, costs could have easily proceeded further north of 10 percent for the first time in a long time.

"There are more resources available to know how to plan a move," says Rosalyn Wilson, an independent consultant with over 30 years of experience in the transportation field. Wilson researched and wrote of the 18th Annual State of Logistics report under the auspices of the Council of Supply Chain Management Professionals (CSCMP). "Shippers are now armed with enough knowledge to discuss things with their 3PL providers. They can now set some realistic expectations, and shippers are taking the responsibility to know that."

According to Wilson, different people in organizations are now making decisions they traditionally didn't have to make. Before, the only things wholesalers and suppliers to Wal-Mart and Target needed were giant warehouses and the trucks necessary to make weekly deliveries. Now logistics managers are thinking more strategically about where to locate that inventory so they can meet a four-hour service window. And they're doing that, stresses Wilson, by relying on a mix of global logistics resources, human and technological, inside and outside their own four walls.

Cooperation in the chain

Wal-Mart has learned that the best way to manage its inventory is to push that responsibility back on its suppliers. Now suppliers have to do something they never had to do before: collaborate.

That means a greater variety of warehouses and warehouse services. Warehouses are increasingly being used as value adding or processing centers employing more packaging, light assembly, RFID tagging, and sorting. And warehouses are holding higher levels of strategic reserves to meet surges in demand or to respond to disruptions in the supply chain.

"There's a much higher degree of collaboration," Wilson says. "Shippers are now willing to share information that they didn't want to share before, so everybody can make better decisions." As a result, adds Wilson, we didn't see a holiday surge last year because we've changed our shipping patterns—not only from where we're bringing stuff in but we've time shifted it, spread it out. "We're moving breakbulk facilities further inland—taking that stuff out of the way so we can keep things moving at ports. The complexity has increased but we're beginning to master it," she says.

Nevertheless, the higher demand for warehousing has also had the effect of pushing up rents for the facilities, further adding to logistics cost. Sometimes that's just the cost of doing business.

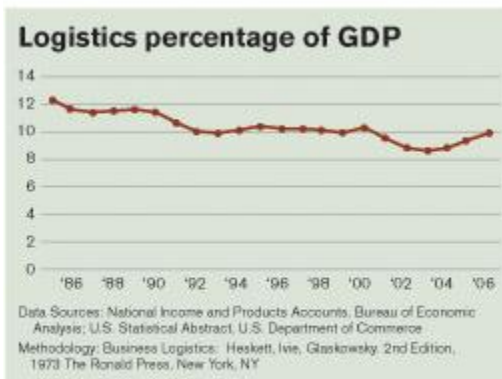
Hard times in trucking

Wilson believes that if the trucking industry hadn't been so soft "the logistics cost as a percent of GDP" number would have been significantly lower. Demand for trucking services was relatively weak in 2006, particularly in the automotive and housing construction markets. Actual tonnage carried was down 1.3 percent in 2006 for the first time in many years.

Also for the first time in a long time, the railroads' revenues were healthier than trucking's. Fuel surcharges helped keep trucking revenues in the black, but actual tonnage carried by trucks was down. By contrast, the railroads carried more carloads than ever and there were record levels of intermodal loadings as well. While rail wasn't immune from the drop in

automotive and housing sectors, coal insulated rail from the damaging effects.

However, what makes Wilson optimistic about trucking is that it's showing signs of adaptability in the face of several challenges. For example, she's seeing a new job function beginning to surface: a sales agent for loads.



After declining for several years, logistics costs are heading upward, almost hitting 10 percent in 2006.

“Some small truckers and independent operators told me they were turning down loads because they couldn't get a backhaul and couldn't economically justify taking the front haul without the back haul,” says Wilson. “There was so much competition for the available freight that the carriers couldn't raise rates, or even pass through the fuel surcharges that some of the bigger companies were able to pass through. One manager for a company with 11 rigs said he needed to be 100 percent engaged to be able to meet his bottom line.”

With the economy chugging along and unemployment rates at historical lows, there is much competition for the available pool of drivers. All segments of the industry experienced increases in turnover rates, with long-haul turnover up to 121 percent and short-haul turnover down slightly to 112 percent in the fourth quarter of 2006, according to data from the American Trucking Associations (ATA).

Rail getting healthier

The rail industry, on the other hand, was fully engaged in 2006 according to Wilson's report. It didn't witness as many capacity issues, on-time performance has gone up, and their average train speed inched up. So, the rail industry did not lose in this softer market.

Rail transportation costs did go up over 12 percent in 2006, however. Revenues for Class I railroads showed the most gain. Rail carloadings were up 3.1 percent over 2005 and intermodal loadings were up another 5 percent. Setting yet another record high in 2006 was total freight volume, estimated at 1.77 trillion ton-miles, up 4.5 percent from the previous record set last year.

Another indicator of the increased health of the rail industry is the freight revenue per ton-mile figure which has risen from 2.354 cents per ton-mile two years ago to 2.84 cents in 2006—that's more than a 20 percent gain.

Traffic levels are expected to continue climbing so capacity expansion will be a key issue in the future. The Association of American Railroads (AAR) reports that railroads plan to spend massive amounts this year—\$9.4 billion—of private capital to add capacity where it is needed to meet the growing demand.

Sea and air show potential

Maritime and domestic water traffic spending increased by 7.9 percent, or almost \$3 billion in 2006, with most of the growth in ocean freight. However, the U.S. inland waterway system is not a growth sector of this industry. Aging infrastructure and deferred maintenance is taking its toll on the system and preventing it from operating optimally. The nation's ports experienced another year of high traffic levels and handled it with few, if any major, incidents. Shipping patterns have changed in response to the peak capacity problems of a few years ago.

Air freight revenue increased by \$3 billion during 2006, an increase of 7.6 percent and much lower than the more than 17 percent increase measured the previous year. The air industry represents 45 percent of the value of goods that move offshore—and that number is continuing to grow.

Fuel is the industry's top cost and now constitutes 20 to 30 percent of industry operating expenses, outstripping even labor. Preliminary figures for the air cargo industry indicate a strong performance with overall ton-miles up 4.4 percent over 2006 and up over 22 percent since 2000. Domestic air freight accounts for about 71 percent of the total and international about 39 percent. This sector of the industry remains strong as demand for its services grow.

Smarter inventory

According to Wilson, inventory levels were up again and inventory carrying costs were up 13.5 percent. Interest rates in 2006 were almost double that of 2005's. Warehousing costs grew by 12 percent due to an expansion in the amount of

warehousing available and increasing rates and rents. What added to this activity was the variety of smaller shippers and carriers with fleets of 15-20 vehicles getting into the inventory management game.

"I'm seeing a lot of these companies beginning to lease warehouses," Wilson says. "One fleet manager hired a junior guy from a 3PL to do his marketing for him and he just won his first couple contracts, leased a warehouse, and they're doing packaging and attaching RFID tags for a retailer. So we have new players entering that value added service niche, and that caused a blip in that demand for warehousing because they need a place to do it."

Forwarder revenue grew to \$28 billion in 2006, up from \$22 billion in 2005. Part of this rise is attributable to the fact that more C-level executives are realizing that their transportation and procurement managers need to be talking.

"Departments aren't as compartmentalized any more," Wilson says. "The supply chain is global and outsourced. This decision here affects this decision there. Companies will start looking at their total cost." That means companies may start carrying more inventory here in the U.S. rather than in facilities overseas. This will help them better manage their risk of supply chain disruption and avoid competition for goods as the consumer markets in other countries grow.

Who is holding the inventory? According to Wilson, retailers are holding less and their suppliers are holding more. Retail inventories only grew by 2.6 percent last year, but wholesale inventories, where the suppliers hold their goods, is up 10 percent.

"You're reading headlines where Wal-Mart and Home Depot and Target are saying they've leaned their inventories but what they've actually done is push inventory down the chain," Wilson explains. "A supplier told me he makes deliveries every two or three days to Target, and these are truckload deliveries with a lot of product. Or, it may be one carton or a case of toilet paper because a store is only keeping one case in the back. So we're actually holding more inventory."

Where logistics is better than five years ago, adds Wilson, is the ability to meet that four-hour service window. Logistics managers are getting smarter.

"We've seen a long term trend to shifting the buying and delivery period for known things like Christmas and other holidays and that's where we would typically see the bottlenecks in August or September at the West Coast ports," she says. "That didn't happen last year. There's been a big shift in taking advantage of other ports. There's work being done on the Panama Canal and new projects that are about to come online at ports all along the East Coast and in the Gulf of Mexico, adding huge container processing facilities."

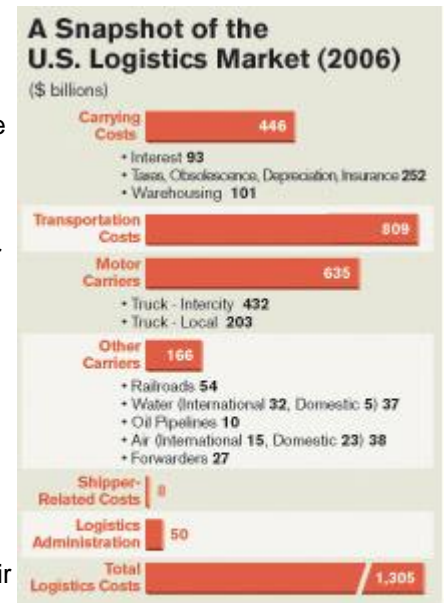
Wilson notes that right now, 75 percent of freight that moves in the world moves in a container. Over the next decade that will rise to 95 percent with barges moving them via inland ports—hopefully alleviating some highway congestion.

Reason for hope

Traffic on our nation's highways in the last ten years has increased 25 percent. Shippers and carriers now realize they can't point fingers and expect the infrastructure to take care of itself.

"Everybody understands that something has to be done about the infrastructure now, and everybody has to be involved," Wilson says. "The ATA says they are willing to agree to an increase in the fuel taxes if the money will go to building new roads."

So while logistics costs are higher in this year's State of Logistics report, they are starting to be seen as more than costs. They are the price of supply chain security. Wilson says this era of personal responsibility will enable industry to start making headway on many of its other problems.



Most logistics cost categories have risen in 2006. Transportation costs made the biggest leap, growing 9.4 percent to \$809 billion.

2007 State of Logistics Report/LTL: The shift is on
By John D. Schulz, Contributing Editor -- 7/1/2007

There have been times in the LTL industry when it seemed that nothing significant was happening in terms of market share, freight diversion, and rate leverage. Now is not one of those times.

“This is a good time to put your LTL bids out,” says Satish Jindel, who tracks the LTL sector as principal of SJ Consulting. “Earlier in the year was a better time, but now is a good time too.”

Taking advantage of an overall soft market in the \$33.6 billion LTL sector, shippers are voting with their feet. They are abandoning the large, unionized, national carriers in favor of a host of alternatives that are filling the market place. Non-union competitors, eager to capitalize on the ongoing talks with the Teamsters union, are pulling out all stops in an attempt to win freight from the unionized carriers.

“There is some shifting going on,” says Fred Boehler, vice president of logistics for Borders Group. “Those carriers who aren't able to execute from a service standpoint are losing market share because competition is able to match them on price and able to deliver a better service product.”

The winning carriers are those able to capitalize on the still-growing regional markets by offering top-flight service at competitive rates. Pitt Ohio Express, the Northeast regional carrier, expects 10 percent tonnage growth this year, partially as a result of geographic expansion. A. Duie Pyle, another Northeast regional, reports that it expects a 7 percent revenue gain with virtually no expansion.

Con-way, a perennial leader in profitability in the LTL sector, is reporting increases in tonnage and reports seeing year-over-year increases in volumes. The company also reports that its recovering business lost during its yield improvement initiative in late 2005 and 2006.

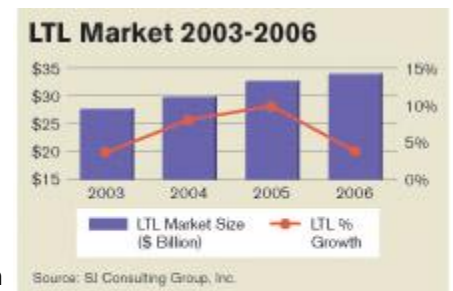
And even though shippers are still demanding consistency and reliability from their time-tested carriers, many don't expect to pay a whole lot more for high-level service due to current market conditions. A survey of more than 100 shippers by Bear Stearns showed shippers expect LTL rate increases of just 1.5 percent year-over-year. That's the lowest expected increase since the second quarter of 2002 when the LTL sector was at the end of the last freight recession.

Although virtually all LTL carrier executives describe pricing as “rational but competitive,” the reality is that the marketplace is perhaps the softest it's been in six years. Analysts contend that any shipper who is signing a contract for more than a 2 to 3 percent rate increase ought to be doing better in negotiations.

“The overall market is soft—that's what I'm hearing across the board,” Boehler adds. “Absolutely, you're seeing more market shifting. From a price standpoint, there's not a huge differentiation among the key players.”

A subtle word of warning: Shippers should keep in mind two dates: March 31, 2008, and July 31, 2008. Those are expiration dates for Teamsters contracts covering nearly 300,000 workers at UPS and some 60,000 workers in LTL. Union sources report solid progress in the UPS talks, but hardly any work on the National Master Freight Agreement.

The year before a contract year is always lively in freight. “It helps if a shipper is negotiating with the unionized guys who will fight to retain the business,” Jindel says. “But shippers can only use that leverage with the unionized carriers. The non-union carriers actually benefit from any uncertainty in the market place that comes with contract talks.”



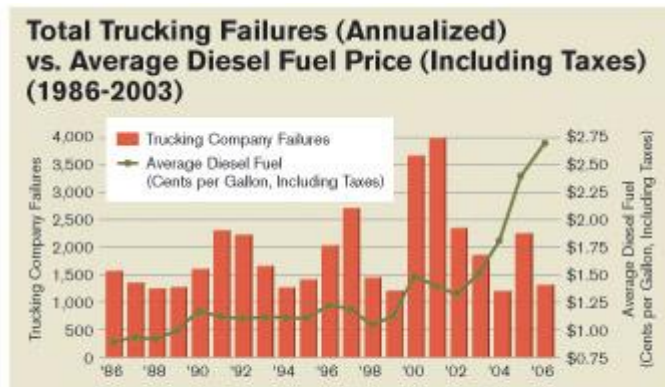
The LTL market reached \$33.7 billion in 2006—a 3.8 percent increase from 2005.
Source: SJ Consulting Group, Inc.

If it's contract time with your core truckload (TL) carriers you should be in negotiations for lower rates now to take advantage of the current overcapacity in the marketplace—because it's not expected to last.

The TL sector accounts for \$326 billion—or 45.7 percent—of the nation's total \$713 billion U.S. freight transport market. It's a splintered market with the top 10 carriers getting just 13 percent of it, while the top five LTL carriers garner 55 percent, according to data compiled by the American Trucking Associations (ATA) and Stifel Nicolaus, the Baltimore stock brokerage firm.

The TL sector has endured its toughest 12-month decline since the 2001 recession. It began the middle of last year and continued as the slump in auto manufacturing and housing endured. At the same time, Class 8 sales zoomed. This was fueled partially by a pre-buy ahead of the government-mandated 2007 lower-emission trucks; in turn, the industry bought a record 270,000 heavy trucks last year.

ACT Research, which tracks new truck orders, estimates the sector has approximately 116,000 to 120,000 too many trucks, or about 6 percent overcapacity. The industry is forecasting as much as a 30 percent drop in sales this year.



For years there was a strong correlation between the rising cost of diesel fuel and trucking bankruptcies. But that correlation has lessened as fuel prices have remained high the past couple of years.

Source: Donald Broughton of A.G. Edwards and Sons

And while conventional wisdom holds that the industry will “burn off” that overcapacity later this year, not everybody is so sure. “Indicators that have historically proved reliable in predicting truck tonnage upturns and downturns are still pointing to continued weakness,” says Donald Broughton, trucking analyst for A.G. Edwards & Sons. “Until that changes, it’s premature to predict improvement. For those predicting or hoping for a second half pickup, I have a simple question: Why?”

What the TL sector may see is better year-over-year comparisons even if a genuine recovery is elusive. Because the slump began in the third quarter of last year, the TL carriers may report slightly better comparative numbers. But Broughton warns, “Easy comparisons are not a rebound.”

More fleets are soliciting freight from shippers now than at any time in the past five years, which is clearly an advantage for shippers. The bad news for shippers is for the past nine months, according to the Bear Stearns shipper survey, more freight is being diverted from rail to truck due to aggressive rate increases in rail.

In the first quarter alone, shippers shifted 6.5 percent of their volumes from rail to truck, compared with a 5.1 percent shift in the 2006 first quarter. Still, that same survey showed shippers expected their TL base rates to increase a mere 1.3 percent this year. “It’s not that complicated,” Broughton says. “The industry built a record number of trucks and demand has gone down. When capacity goes up and demand goes down, guess what? Pricing gets weak.”

2007 State of Logistics Report/Air Cargo: Nowhere to go but up

By Karen E. Thuermer -- 7/1/2007

With more and more shippers using air cargo to enhance their global supply chain strategies, the airfreight industry has no place to go but up.

Projection numbers from some of the world's leading industry watchdogs speak for themselves. The Boeing World Air Cargo Forecast projects world air cargo will grow 6.1 percent per year and triple by 2025 from 178.1 billion revenue tonne-kilometers (RTK) in 2005 to over 582.8 RTKs in 2025. During those 20 years, the international market is expected to outpace domestic growth, exceeding 84.2 percent of total RTKs.

The International Air Transport Association (IATA) indicated marginal growth of 3.2 percent for 2005 and 4.6 percent for 2006, with high jet fuel prices and strong competition from other transport modes (particularly in Europe) identified as key contributing factors. According to the IATA, North America was the most improved market in 2006 with airfreight growing from 0.4 to 6.0 percent as airlines switched capacity towards cargo resulting in an 80.2 percent load factor, up from 79.5 percent in 2005.

"Load factors, at an overall record high of 76 percent, were the good news story for 2006," says Giovanni Bisignani, IATA's direct general and CEO.

Loads improved in all regions except the Middle East and Africa. But going forward, Boeing projects the U.S. carrier share of the world market, currently at 27.2 percent, will fall to 23.5 percent by 2025. Not surprisingly, the greatest growth is expected in markets linked to Asia. IATA estimates new international freight traffic will grow a whopping 30 percent for intra-Asia traffic.

It's important to keep in mind that at 5 percent, air cargo remains a small piece of the world trade pie. "In terms of unit weight, we estimate this to be about 36 million tons moved annually," says Tom Crabtree, regional director, marketing, for Boeing Commercial Airplanes' Air Cargo Industry Analysis Group.

By comparison, the United Nations Council on Trade Development reports the world maritime industry moved 7.2 billion tons in 2005. But this figure includes bulk commodities such as oil, metal ores, and grains that cannot be compared directly to higher-value dry commodities associated with air freight.

"Even if you look at containerized cargo traffic that generally encompasses higher value semi-finished goods, air cargo is still a fraction of the total world market," Crabtree contends. "By our calculations, air freight is about 1 percent that of the total containership industry."

Yet air cargo represents over 36 percent of all transported cargo by value (\$3.25 trillion) and generates \$50 billion in annual revenues. "Short of an environment collapse such as the world being hit by an asteroid, this indicates that the air cargo industry has no where to go but up," Crabtree remarks.

Other factors contribute to this optimistic outlook, such as expanded cargo capacity offered by the more fuel-efficient aircraft scheduled to come on-line. "The more we improve our product and the more shippers get used to the speed element that air transport provides, the more our industry will grow," Crabtree states. "And the more we improve our product, the more the costs to move product diminishes."

In coming years, freighters will overtake demand for belly capacity in passenger aircraft with the world freight fleet nearly doubling from 1,789 to 3,563 aircraft. By 2025, 1,209 airplanes will have been retired and 2,983 added to the freighter fleet. For the time being, expansion will be challenged because manufacturers can only build and deliver so many aircraft at a time.



Inter-Asia freight flows are predicted to offer the strongest growth through 2010.
Source: IATA

2007 State of Logistics Report/Ocean freight: All eyes on rates

By Tom Andel, Executive Editor -- 7/1/2007

As far as a delivered cost, or total transportation spend, shippers didn't do as well. The industry found that bunker surcharges easily offset the reductions in the base rates. Paul Bingham, principal of global trade and transportation practice for Global Insight Inc., says that the steamship lines are trying very hard to change perceptions of oversupply.

"We're cargo demand analysts, and we're echoing some partners of ours, mostly in London," says Bingham. They believe the overall slot capacity—the biggest, crudest measure of overall container shipping capacity—is being added to at a greater rate than the growth we're projecting in trade this year. "What that really means is that the fundamentals are there for the steamship lines to continue to face this pricing pressure situation, much to the benefit of the shippers."

That doesn't mean carriers aren't doing anything about this situation. Bingham believes carriers are being creative about reworking their vessel service streams; and he has seen anecdotal reports that to save on fuel costs and take up additional vessel capacity the carriers have been "slow steaming," the practice of not running vessels at designated sea speeds. By cutting back several knots of speed they can save fuel and therefore achieve the same delivered capacity at a lower fuel cost.

"However on the longer haul routes, especially East-West routes that requires the addition of newer ships into a string of vessels to maintain a weekly service frequency," Bingham adds. "From a shipper perspective, therefore, they see no increase in service on a particular trade route from a particular carrier or consortium, yet the number of vessels getting used is soaking up some of that capacity."

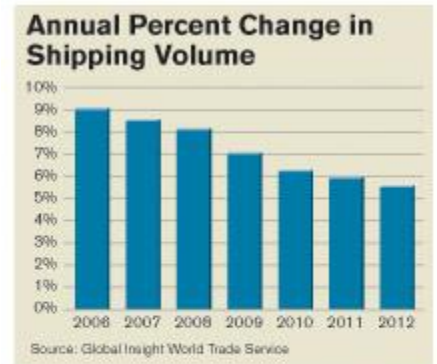
These new ships are bigger, and not all ports can handle their size. Even more limiting is the time it takes to work the longer shifts and finding the landside capacity to handle the cargo coming off these larger ships. Even the equipment used at many ports isn't sized to the task. As these ships get wider rather than longer or deeper, the cranes don't have sufficient outreach to service them. Bingham says that can be a crippling situation.

"The ports are trying to be proactive, but as those cranes get larger they get more expensive, and you can't afford to replace all your cranes overnight," he explains. It becomes a limitation in terms of how much you can grow or how fast you can add a number of vessel strings that have the largest vessels.

In the year ahead, says Bingham, fundamentals still point to a strong position for shippers. "Trade is not growing as fast as it was in prior years and these order books keep relentlessly supplying more vessels into the world's fleet," he adds. "The greatest downside risk is fuel cost, with bunker fuel adjustments. Any fuel price increases will get passed right back to the shippers, and they'll have to deal with them separate from the base rates."

Shippers may get more for their money, however, if you judge by the added services. New all water services are being added through the Suez Canal from Asia. This will give shippers new opportunities to fine tune their inbound shipments across a greater variety of vessel services than in prior years.

However, Gary Klestadt, president of Trans-World Shipping Corp., a New York City-based freight forwarder, sends out a word of warning. He says that as ocean shipping has gone from common carriage to contract, the greatest difficulty for small firms is monitoring the contracts. "Today I sign a contract on January 1, and I really have no clue whether those rates will be valid two months later," says Klestadt.



The forecast percent change in total world volumes shows slowing from the recent pace, but at rates still above general economic growth in the world. This represents all world ocean imports and exports in fully loaded containers.
Source: Global Insight

2007 State of Logistics Report/Railroads: Shippers not smiling about service

By Jeff Berman, Senior Editor -- 7/1/2007

Unlike last year, when railroad freight volumes were chugging along at a record-breaking pace, the outlook so far in 2007 is decidedly different. Plagued by tenuous economic growth and prolonged slumps in certain sectors, including the housing and automotive markets, carload and intermodal loadings are down while shippers say they're far from satisfied with the service their receiving on the rails.

According to the Association of American Railroads (AAR), Class I railroads hauled 17.4 million carloads in 2006, which edged out what had been a record 2005 by 1.2 percent. While intermodal loadings of trailers and containers in 2006 came in at 12.3 million, topping 2005's output by 5.0 percent. But fast forward to the data for the first five months of 2007 and it's a different story, with carload and intermodal loadings down more than 4 and 1 percent respectively.

Despite the lull in numbers, it's safe to say that less demand does not necessarily translate into increased shipper satisfaction. In fact, service complaints and general dissatisfaction are on the rise this year, with the Surface Transportation Board being taken to task by politicians and shipper groups for a "broken railroad system" that they're proclaiming is a detriment to moving freight and "harming the country's economic vitality."

Add in the expected increase in capacity over the coming years and the ongoing issues surround fuel surcharges, and it's easy to forecast that operations on the rails will be far from perfect for carriers or shippers over the next couple years.

"Lower volume figures may help somewhat, but the shipper complaint is that the railroads just don't focus on service, because they have a monopoly over most rail customers," says Bob Szabo, executive director and counsel for the shipper action group Consumers United for Railroad Equity (CURE). Rail customers, says Szabo, are in a take-it-or-leave-it position. "We don't believe the railroads are trying very hard, and they dictate their own terms," he adds. "And just because you pay a premium price does not mean you are going to get good service."

As has been the case in the past, a large reason for poor railroad service has been inadequate infrastructure. This is something railroad carriers recognize, as evidenced by their spending of more than \$8 billion in 2006 for various service-related improvements, such as laying new track, buying new equipment, and making infrastructure improvements, according to AAR data. The AAR says that investment is expected to be \$9.4 billion this year.

Some examples of this record-breaking spending include BNSF Railway Company's plan to double- or triple-track on about 30 miles of its Southern Transcontinental Route between Southern California and Chicago. BNSF is also adding 60 miles of third and fourth main track in the Powder River Basin.

CSX reports that it will invest \$800 million for infrastructure improvements, with some funding going to intermodal initiatives, including an expansion of terminals in Buffalo, Tampa, and Bedford Park, Ill. Norfolk Southern expects to spend \$610 million for rail, crosstie, ballast, and bridge programs, including \$73 million in infrastructure for increased capacity.

Although these investments are designed to relieve congestion-related bottlenecks and reduce stress for shippers, the changes will not be instantly noticed, says William J. Rennie, director of Oliver Wyman, a Boston-based management consultancy.

"The railroads are investing in areas where there are bottlenecks in the system," says Rennie. "Things are going to remain tight for a while and we're going to be in a period where it is managed growth, where the railroads will not overbuild but capacity will be added each year in anticipation of where the traffic is going to come from."

