Decongesting Rail Traffic Is a Major Step to Raise Fuel Efficiency

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When the Department of Transportation doled out $1.5 billion in infrastructure grants last week, one of the largest checks went to a rail overhaul in the Chicago area.

Almost all of the country's freight railroads converge there. The region handles so much cargo that only three cities outrank it: Hong Kong, Singapore and Shanghai.

And like O'Hare, Chicago's infamous airport, it's reviled for its traffic.

"When there's delays at O'Hare, it impacts the whole nation's air transportation," said Joseph DiJohn, a freight analyst for the Urban Transportation Center at the University of Illinois at Chicago. "Likewise, if there's delays in freight here, it can impact the rest of the nation, backing up trains. This is not a local project, it's a project of national significance."

In 2003, DOT, local governments and the rail carriers teamed up to form a plan. CREATE, as they called it, would encompass dozens of projects to help trains, cars, trucks and pedestrians flow past one another. That could mean double-stacking trains, building more clearance under bridges, building overpasses for roads and rails, or improving traffic signals.

The problem: money. The estimated project cost was $3 billion, but as of last year, the project was nearly $2.6 billion short. A $100 million grant from DOT's TIGER program will go to the most urgent projects. Non-federal sources will kick in another $62 million.

Unclog one mode and others may benefit

It was one prominent example of "intermodalism," a common term in Secretary Ray LaHood's DOT. The concept is that people and goods can move in different
ways -- by truck, boat, plane or train -- but that each one has unique strengths. In congested zones like Chicago, the thinking goes, those strengths go to waste.

Careful investments, it's argued, can save time, energy and carbon -- all by letting people use the transportation mode that is most efficient.

Will Schroeer, state policy director for Smart Growth America, said the Chicago investment will show that unlogging just a few parts of the transportation system will make the whole thing run smoother.

The railroads will be the first to enjoy the reduced traffic, he said. But soon the effects will ripple out to the city's commuter trains and motorists, who will blow by crossings where they once had to wait. Pressure on the city's urban train, the El, will ease.

"This is not about making freight cheaper for shippers. This is about strengthening the communities and the economy that are going to be served by these projects," he said.

The freight sector makes up a small portion of national greenhouse gas emissions -- roughly 7 percent -- but it may lead the administration's efforts to make transportation more efficient nationwide. The top three TIGER grants, which add up to $300 million, went to CREATE and two other freight rail projects. Many of the remaining grants also devote funds to rail and barge shipping.

Road investments featured relatively lightly, which may signal a change in the freight sector overall. Over the last 20 years, according to DOT, more freight has shifted to trucks and planes, which are faster but less energy-efficient than trains and barges. As truck efficiency has dropped -- partly owing to stronger engines and devices that control other emissions -- the freight industry's carbon footprint has swelled.

**Getting 436 miles to the gallon?**

Meanwhile, the freight railroads have launched a campaign to brand trains as the most energy-efficient way to move goods. High-profile ads in recent years have boasted of moving "a ton of freight 436 miles on a single gallon of fuel."
At least at the White House, some are buying it. In an e-mail, a DOT spokesperson referred to "the public environmental benefit" of rail: "Shifting traffic from truck to train -- reduces emissions and is more energy-efficient."

That's true, if the modes are compared strictly, said Jim Kruse, director for the Center on Ports and Waterways at the Texas Transportation Institute. In a 2007 report, Kruse and his co-authors found that trucks are one-third as efficient at moving a ton of goods for a mile compared to railroads and inland barges, which use the nation's rivers to get around.

So if large portions of freight were diverted from trucks to trains, would it make a dent in the nation's carbon footprint?

A January DOT report found that keeping freight emissions roughly level from 2005 to 2035 would take a suite of policies, and that a 20 percent shift from trucks to rail would contribute only a small gain. The much larger potential gain, it said, would come from doubling truck fuel economy -- a goal unlikely to be achieved without a price on carbon.

Nevertheless, Kruse said, other countries have begun subsidizing moves away from trucking, sometimes to cut carbon emissions, and sometimes to reduce congestion. In Quebec and some European countries, if a shipper can prove he chose to use rail rather than trucking, he is eligible for a check.

**Truckers have their doubts**

But Kruse and others said trucks and rail aren't necessarily in a zero-sum game.

"What trucking can do that no one else can is, it can go anywhere," he said. "Barges can't do that because they have to be on the water, and railroads can't do that because they have to stay on the rail line."

"Nothing can work if the trucking system doesn't work. Nothing works," he said.

Other observers added that barges and rail aren't for shippers in a rush. These vehicles move much more slowly than trucks, and their rails and waters don't always reach the freight's final destination. Typically, a truck drives the last leg.
Schroeer, of Smart Growth America, said the trucking industry is beginning to believe it can maintain its role in the freight system even as other modes become better connected.

For now, at least, the leading industry group is not so sure.

Clayton Boyce, a spokesman for the American Trucking Associations, said the TIGER grants overlooked hundreds of highway bottlenecks identified by DOT itself. The TIGER selections "serve to highlight the much greater need for extensive reinvestment in our National Highway System that carries over 70 percent of the freight by weight that keeps our economy functioning," he said.

Might the improved rail system, at least, clear the highways and make it easier to be a trucker?

"No, not really," Boyce said. "If you think that railroads would decrease highway congestion, you drank too much of their Kool-Aid."