FOURTH ANNUAL SYMPOSIUM
ON THE

IMPACTS OF LOGISTICS ON THE UPPER MIDWEST ECONOMY

September 11, 2000, Bloomington, Minnesota

Sponsored by: **The Center for Transportation Studies (CTS)**
and **The CTS Logistics Task Force, University of Minnesota**

A SUMMARY REPORT

Rising congestion levels, increasing global e-commerce, growing consumer demands, and impeding regulations are forcing the logistics industry to rapidly change its business processes. These were just some of the pressing issues discussed at the fourth annual CTS logistics symposium. Robert Johns, acting director of CTS, opened the symposium by stating that the event provided a unique opportunity for the private and public sectors to have a much-needed dialog regarding these issues and offered a starting point for developing solutions to the many challenges ahead. This report summarizes the event's three sessions.

KEYNOTE PRESENTATION:
"A Model for Achieving Supply Chain Effectiveness"
Introduction: Douglas Weiszhaar, Deputy Commissioner, Minnesota Department of Transportation
Speaker: Christopher B. Lofgren, CEO, Schneider Logistics

PANEL 1: Urgent Concerns and Issues Facing Freight Transportation
Moderator: Frederick Beier, Professor, Carlson School of Management, University of Minnesota
Panelists: Tom Wintz, President and CEO, Dedicated Logistics; Doug Restemayer, Manager of Domestic Operations, TGT Transportations, Target; Jerry Flaherty, Minnesota Marketing Manager, United Parcel Service

PANEL 2: The Role of Government—Practical Applications/Practical Solutions
Moderator: Jim Barton, Metropolitan Council
Panelists: Harry Caldwell, Office of Freight Management and Operations, Federal Highway Administration; Alan Harger, Manager, Freight and Economic Partnerships, Washington State Department of Transportation; Ross Thorfinnson Jr., City Councilman and Chair of the I-494 Corridor Commission, Eden Prairie, Minnesota

KEYNOTE

A Model for Achieving Supply Chain Effectiveness

Doug Weiszhaar

In his keynote introduction, Douglas Weiszhaar, deputy commissioner of the Minnesota Department of Transportation (Mn/DOT), noted how the freight transportation industry and government have worked over the past few years to identify planning and operating needs. In the current global economy, the region's ability to move goods efficiently, through partnerships between government and private industry, is and will continue to be responsible in part for Minnesota's ability to prosper, he said.

Weiszhaar then introduced keynote speaker Christopher Lofgren, chief executive officer of Schneider Logistics.

Lofgren said that Schneider Logistics has migrated from being an outsourced third party logistics company. Although it continues to serve that function, the company found that its customers wanted access to more services in an unbundled way. To address this need, Schneider has developed a significant set of relationships with various service providers.

"The creation of networks of networks on behalf of our customers is really the business that we are," Lofgren said. "This dearly shapes how we see supply chains." Today, Schneider Logistics provides services such as integrating trading partners, i.e., providing the backbone and the network these partners can use to communicate with each other. Schneider also offers a series of value-added application services that ride on top of that infrastructure, from capacity purchasing and managing functions to supply chain reengineering and consulting activities, including those related to engineering as well as operations, reengineering, and process mapping.

The challenge now, according to Lofgren, is to figure out how to go after the next set of opportunities. In the logistics market today, roughly 30 percent of the costs are inventory-related, including carrying costs and insurance. A large chunk of the costs, Lofgren explained, is transportation, of which trucking is a major component. Today there is an estimated $40 billion in administration and shipper-related costs within the transportation industry. By taking some of these costs out of logistics and transportation networks, Lofgren says the industry can improve people's lives by keeping the cost of purchased goods down.

Next, Lofgren described how the Internet has become the mechanism with which people communicate extremely effectively and inexpensively. Not too long ago, he continued, a letter would have taken 31 days to move from coast to coast between a stagecoach and a train. The Pony Express took that down to eight days. Then the telegraph came along and information was transferred in an hour. And now the Internet is here and information is moved instantly. "Each time in history that there has been a discontinuity in the speed at which information moves, the [first] companies that figured out how to leverage that speed have gained a sustainable competitive position in the market which was not duplicated by the second company to figure it out," Lofgren stated. "That's why companies are all scrambling to figure out how to provide the speed that people want. The businesses that take advantage of the technology can better position themselves in the marketplace."

Because companies want to conduct business faster, he said, the demands on the supply chain are changing, and businesses must re-create processes and create alliances, partnerships, and new ways of thinking. Lofgren said there are three flows that must be managed in the supply chain: the material flow, information flow, and financial flow. Companies need to consider all three of these flows together to achieve the greatest benefit, he added.

Today, goods movement—or material flow—requires a complex network of many providers to ensure capacity coverage. Businesses need to think about and plan, much more carefully, how they're going to move products, since moving products makes up about 60 percent of logistics costs in the U.S. market. "There isn't any one provider who can deliver the type of service the new global marketplace demands," Lofgren said. "We think you have to rely on partnerships with a lot of different providers."

He then explained how the funds, or financial, flow drives the need to efficiently move money. Fundamentally, all of the partners who come together are in business to make money and yet, how those dollars flow is not often thought about, Lofgren said. The efficiencies of cash flows, however, can be increased. "The ability to organize and extract important information on how a product flows is critical in managing this flow, and effectiveness in this area leads to healthy cash flows."

Finally, Lofgren described how information flow is a key component of today's supply chain; it's the mechanism that brings trading partners together. In the past, he said, businesses looked only inside their four walls for ways to reduce waste. Today, businesses have to look outside for ways to become more efficient, and many companies are turning to partnerships. "The information flow provides the opportunity to really get at the inefficiencies," Lofgren said. "We need to interact better with our trading partners. To do that, we need to be connected."

Keynote speaker Christopher Lofgren

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—Christopher Lofgren

These three flows have to be managed, Lofgren continued, in order to successfully drive cost and waste out of the supply chain and improve service. According to Lofgren, companies need three capabilities to support this model: operational knowledge, technology, and a network of providers.

Operational knowledge results in more effective business processes and operations. For example, if trucks have to wait several hours at the loading dock, companies lose money. Thus, the more a company knows about its operations, the better it can employ more effective strategies. Technology provides the medium in which to imbed well-thought-out business processes and automate standards, creating an efficient information exchange and reducing costs in all categories. The network of providers, on the other hand, is the means to the end. An integrated network drives both cost and price effectiveness; thus, the quality of the network directly impacts the performance. This network has become the most critical component to the success of a business today, and therefore, technology and business processes should be built around it.

But, Lofgren asked, how do companies integrate these flows and capabilities? How do they reduce costs and make capabilities to serve new customers while defending their positions in the marketplace? The network of trading partners is the foundation. But integration is the key activity to ensure effective collaboration. "The key to integration involves the plans and accountabilities: Who is being held accountable in each of the supply chain flows? Who is responsible for looking out into the future and understanding how to change in support of how the market is changing? Who will ultimately manage the quality of the partnership network? There are a lot of different approaches one can take to integrate these pieces," Lofgren continued, "but integration … is critical if all the pieces of the puzzle are to come together."

PANEL 1

Urgent Concerns and Issues Facing Freight Transportation

The symposium's first panel discussion was moderated by Frederick Beier of the Carlson School of Management and featured panelists Tom Wintz of Dedicated Logistics, Doug Restemayer of TGT Transportations, Target, and Jerry Flaherty of United Parcel Service (UPS).

Wintz began by addressing the major industry concerns facing Dedicated Logistics: the driver shortage and hours-of-service issue (which governs the number of driving and resting hours for truck drivers); technology and the lack of creativity in using it to its full potential; and, more recently, increased insurance costs.

The driver shortage and hours of service are troubling because, as Wintz explained, the industry is about 400,000 truck drivers short to meet the hours-of-service requirements. "We deliver predominately at night; however, the new rules [concerning hours of service] don't really promote this, but rather amplify congestion and other problems," Wintz said.

Additionally, increased insurance costs have recently emerged as a major problem. Wintz said that this year, his company was faced with a 30 percent increase in insurance costs. Industry-wide, insurance costs are approaching the level of payroll and fuel as the major costs for carriers. "Ultimately, all of these higher costs are passed on to shippers," he added.

"The transportation industry affects everyone. The harder it is to move products efficiently and cost-effectively, the more difficult it will be for consumers to buy products, and the more expensive those products will be."

—Tom Wintz

One of Wintz's suggestions for countering this effect is to eliminate the costs from the system itself. "The current legal system promotes higher costs," Wintz said. He noted that the rise in healthcare costs at his company is in part attributable to a rise in Workers' Compensation claims. Wintz believes that Workers' Compensation fraud is yet another factor leading to higher insurance costs.

In conclusion, Wintz said that the industry needs to improve public relations in order to attract and recruit better employees and change the perception that the industry is just "dirty, greasy guys."

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Next, Doug Restemayer discussed Target's logistics strategy and related some of its freight concerns. Unlike Wal-Mart, which has a large private fleet, Target moves most of its product through small contracted private carriers. More than 90 percent of these products move through one or more of Target's 12 distribution centers.

Moderator Fred Beier with panelists Tom Wintz, Doug Restemayer, and Jerry Flaherty

One significant issue for Target is the increasing pressure from consumers to have enough product when and where they want it. "We know it's frustrating when customers come to our store to purchase a product and it's out of stock," Restemayer said. "But the challenge for us is a shrinking supply chain ...We need to find the ability to move the quantities of products needed."

Like other companies, Target is also concerned about highway congestion. "Congestion creates an unpredictable pipeline," explained Restemayer. "If we think it will take 30 hours to deliver a product and it takes 40 hours, products won't make it to the shelf when they're needed." The railroad infrastructure plays an important role in Target's freight strategy, but it too presents challenges. One of the problems, Restemayer noted, is that the railroad infrastructure hasn't kept pace with Target's demand. At peak times, the company has to pay the railroad higher fees to reposition equipment to major ports such as Los Angeles or Seattle.

Restemayer said that the Internet raises yet another transportation issue. "A lot of companies are waking up to the reality that it does cost money to move products from vendor to customer," Restemayer stated. Concerning Target's e-commerce strategy, he said that the company is not sure how to cost-effectively move a large product ordered online, such as a patio set, directly to consumers. "Target is a discount operation and the margins aren't enough to subsidize the freight cost, and we don't think the consumer is ready to pay 8 to 10 percent of that cost," he said. Target is addressing some of these challenges by working on ways to better use existing resources.

Jerry Flaherty discussed steps UPS has taken to prepare for the growing e-commerce world. The company has built a worldwide infrastructure that includes e-commerce fulfillment, letter and package delivery, and long-haul shipment. "Minnesota Walleye is on the menu in countries throughout the world. And a local wildlife artist can sell his artwork worldwide. UPS makes these things possible," Flaherty said. According to Flaherty, one major trend adding momentum to the global marketplace is increasing consumer pull. Today, people want instant connectivity and access to information, he said. The Internet has broken down sales walls, allowing consumers to compare prices and shop features, and even shop
outside of their geographic region, Flaherty explained. This levels the playing field in rural as well as urban communities.

While this shift to a more consumer-pull marketplace is just beginning, he warns that the transportation industry must be prepared to support these new business models.

PANEL 2

The Role of Government—Practical Applications/Practical Solutions

Jim Barton of the Metropolitan Council moderated the second panel discussion, which featured Harry Caldwell of the Federal Highway Administration (FHWA), Alan Harger of the Washington State Department of Transportation, and Ross Thorfinnson Jr. of the I-494 Corridor Commission in Eden Prairie, Minn.

Caldwell provided an update on the strategies the FHWA is developing as it moves towards reauthorization of the federal surface transportation program. In January 1999, the FHWA began developing a freight productivity program to conclude in March 2002 with a surface transportation reauthorization initiative, Caldwell explained. [The Transportation Equity Act for the 21st Century, TEA-21, passed in 1998; reauthorization of the act is due in 2003.] Caldwell said that the FHWA is looking at all modes of the global freight network and at the intermodal linkages between the nation's highway system and the other surface transportation modes.

One small program enacted in TEA-21, the "Borders and Corridors" program, focused on North American freight productivity and served as a catalyst throughout the nation for regional and multi-state coalitions developing freight initiatives. This initiative will be one of the key points of reauthorization.

Although no mechanism yet exists for bringing jurisdictions together to engage in multi-jurisdictional programming, there are some good examples of multi-jurisdictional planning, Caldwell said. The most recent one is the Latin American Trade Transportation Study, which was authorized by the Southeastern Association of State Highway and Transportation Officials (SASHTO). Rolled out in early September to much acclaim, the study identified four premier corridors and key ports within the entire 15-state southeast region of the United States. The next step for planners, he said, is to start thinking of programming strategies to actually make investments on those facilities.

On the down side, Caldwell said that some reauthorization issues require more attention, such as multi-jurisdictional approaches to freight planning and infrastructure/infostructure. For railroads specifically, intermodalism is a growth industry. Railroads have had substantial annual capital programs in place over the last decade, Caldwell said, and the industry has seen much innovation, including double stack cars and tracking and tracing systems. However, mergers and acquisitions continue to be a problem, and some rail performance characteristics have not kept pace with what was promised to the Surface Transportation Board. Caldwell stressed that the nation must address the continued need for coordinated public and private investments to benefit intermodal freight and the need for institutional development. Freight doesn't recognize jurisdictional boundaries, and the way programs are delivered is inconsistent with the reality of freight movement.

"As an industry, we need to think about a [public/private] cost-sharing arrangement. We currently don't have a national, intermodal ITS program and that's something that should be part of [TEA-21] reauthorization."

—Harry Caldwell

Other emerging issues facing transportation include the shift to bigger ships in the maritime industry, the challenges of fulfilling e-commerce orders, and the emergence of pull logistics, where inventory is pulled through the pipeline using Electronic Data Interchange (EDI). In addition, more and more companies are going to "postponement" in manufacturing, in which they delay value added in the production process as long as possible to take advantage of changes in market demand.

Caldwell's recommendations for meeting the challenges presented by information technology included optimizing system performance and minimizing the freight footprint and understanding what the public sector needs to fulfill its mandates versus what the private sector needs to improve its productivity. "As an industry, we need to think about a cost-sharing arrangement," Caldwell said. "We currently don't have a national, intermodal Intelligent Transportation Systems (ITS) program and that's something that should be part of reauthorization." Post TEA-21, Caldwell believes that industry needs to think about program effectiveness, which he defines as "meeting the challenges of the emerging issues associated with an integrated system for all North American transportation activities."

Panelists Harry Caldwell, Alan Harger, and Ross Thorfinnson Jr.

Alan Harger discussed the importance of establishing public/private partnerships and explained that in a true partnership, partners mutually share the risk, responsibilities, and costs of the project, as well as the benefits and rewards. He suggested that the main strategy in establishing effective public/private partnerships is to use a market pull approach, not public policy push.

"In many state governments, we built it and no one came," he said. "One way to avoid this is to back away from applying the public policy approach first. You need to start at the benefits and rewards, then move to defining risks and responsibilities. Then, apply public policy to the costs, responsibilities, and risks."

One practical suggestion Harger offered was for both the private and public sectors to establish trust. To do this, the private sector needs to get a better sense of the limits of the public sector, and the public sector needs to understand what drives the private sector. Government has the tendency to think of big concept items, Harger said, and often forgets where the private sector is coming from and what its concerns are in the overall public process. "One thing we've learned is that it is best to negotiate among partners in private, then get the plan approved in public," Harger explained. "This allows the public sector to walk away from the table when the plan doesn't benefit the public."

City Councilman Ross Thorfinnson expanded on the theme of building public/private partnerships by describing one such partnership between the city of Eden Prairie, Mn/DOT, Hennepin County, and Supervalu, a large grocery wholesaler. A few years ago, Supervalu had access problems at its Eden Prairie headquarters, which, during peak times, resulted in traffic backing up on the freeway entrance ramp, overflowing onto the adjacent county road, and blocking the entrance/exit to the company, creating a frustrating and dangerous situation for motorists.

Supervalu assumed that, since it paid a great deal in taxes, the city of Eden Prairie would readily install an $80,000 stoplight. "We learned that the private sector needs to be educated on how the public sector works," Thorfinnson said. In this case, he continued, the city was dealing with Mn/DOT, which had jurisdiction over the entrance ramp, and Hennepin County, which had jurisdiction over the county road. The city initially thought the solution would be relatively easy, "but we quickly realized the problem wasn't as simple as a stoplight," Thorfinnson said. Even though all of the entities involved could benefit from moving the project forward, no one wanted to pay for anything, Thorfinnson recalled. In total, the project would require a new on-ramp, ramp meter, ramp meter bypass, and a stoplight—making it about a half-million-dollar project.

"Although this wasn't a freight issue, this case applies to any situation where a private sector company has trouble gaining access to a regional system."

—Ross Thorfinnson

Finally, after 18 months of negotiations, a deal was crafted with Mn/DOT, Eden Prairie, and Supervalu each paying for one-third of the entire project. Supervalu also agreed to begin a traffic demand management program to encourage employees to carpool, vanpool, or use transit in order to take advantage of the ramp meter bypass. "In the end, Supervalu was very pleased with the outcome and for the city, there's been a huge benefit in traffic control," Thorfinnson said. "It truly was a partnership that benefited everyone and worked in the end. Although this wasn't a freight issue, this case applies to any situation where a private sector company has trouble gaining access to a regional system. By everyone contributing to a piece of the project, it was a win for all of us," Thorfinnson concluded.

CLOSING

Robert Johns summarized the day by reviewing the points made about the rapid pace of change, new technology, and the need to coordinate all the flows of physical goods, information, and finances. He suggested that the next steps to gaining efficiencies are, as Christopher Lofgren suggested, fostering partnerships, interaction, collaboration, and integration between the private and public sectors.

"Partnerships, communication, and understanding of the different cultures at the various levels are what can improve us in the future," Johns said. "We want to keep our economy competitive in the Midwest. Our charge is to continue this communication, as well as the mechanisms for communicating. [CTS] will work towards that, to be a catalyst for this kind of conversation," he added.

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