



Oberstar Forum examines role of walking and biking in a multimodal transportation system

A diverse group of regional, national, and international officials, policymakers, and professionals joined U.S. Rep. **James L. Oberstar** April 9 and 10 to explore the value of integrating non-motorized transportation into communities. This was the fifth meeting of the transportation policy and technology forum named in honor of Oberstar and hosted by CTS.

Oberstar headlined the two-day event, which also featured **Berthold Tillmann**, the mayor of Münster, Germany. Münster recently received a global "Most Livable Community" award and has a highly effective transportation network. CTS director **Robert Johns** served as master of ceremonies.

"The cost of congestion in the U.S. today is \$68 billion dollars," Oberstar said, laying a foundation for his argument that non-motorized options must be part of any effective multimodal transportation system. "People are spending a



James Oberstar

week longer in traffic and buying tanks of gasoline more than they would if they could drive at posted highway speeds. With growing concern over congestion, pollution, and public health, we have to promote bicycling and walking as alternatives for commuting and other utilitarian purposes."

The portion of the event for invited leaders began with an introductory report on new perspectives surrounding non-motorized transportation from Parsons Brinckerhoff vice president **Steve Lockwood**, followed by a series of presentations and discussions. Lockwood asserted that even quadrupling the number of people in the U.S. who walk and bike to work would not measurably lessen environmental

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CTS presents awards at annual meeting

Richard P. Braun Distinguished Service Award: Former CTS director **Richard Braun** presented the award named in his honor to **Kathryn Swanson**, a director in the Department of Public Safety. Praising her as a "champion of traffic safety," Braun noted her key role in connecting university researchers with the DPS and her leadership in the state's Toward Zero Deaths program. "The award," Swanson said, "means the world to me...because research leads to innovation, which...drives us toward zero deaths."

Ray L. Lappegaard Distinguished Service Award: CTS director **Robert Johns** presented the award to **Jeff Hamiel**, executive

director of the Metropolitan Airports Commission. Hamiel, Johns said, is a respected leader and mentor to many. Hamiel said he "learned a whole new realm of research" when he joined the CTS Executive Committee. "It is an honor to be part of this whole program."

William K. Smith Distinguished Service Award: **Richard Murphy Jr.**, CEO of Murphy Warehouse Company, chaired the CTS Executive Committee for the past three years. "He has done a tremendous job for CTS," Johns said of Murphy, who is also an adjunct U of M professor. Murphy said he was humbled by the award and looks forward to "many more years of service to the community and our industry."



Richard Braun, Kathryn Swanson, Robert Johns



Jeff Hamiel, Johns



Richard Murphy Jr., Johns

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Evacuation project wins award

According to University research, walking may be faster than driving in emergency evacuations of a mile or less. **Shashi Shekhar**, one of the recipients of this year's Research Partnership Award (RPA), explained his team's findings at the CTS Annual Meeting and Awards Luncheon, held in Minneapolis April 18.

The winning project, "Metro Evacuation Traffic Management Plan," developed a system to coordinate local emergency evacuation plans in multiple communities. The system would minimize potential congestion on major roadways, speed up the evacuation process, and maximize safety for citizens.

CTS associate director **Laurie McGinnis** began the presentation by introducing **Sonia Morphew** of Mn/DOT, another project partner. Seventy public and private agencies in the nine-county metro area were invited to create the plan, Morphew said, including transportation, fire, law enforcement, and emergency management officials. A key component of the project was Shekhar's routing software, she said, the "first we've come across that runs in minutes instead of hours or days. During an evacuation, [these are] hours or days we don't have."

Shekhar, a professor in the Department of Computer Science and Engineering, explained

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and other harms from motorized vehicles. Instead, Lockwood suggested that promoting walking and biking as transportation modes must include a focus on quality-of-life benefits that show short-term, dramatic payoffs.

Additionally, University of Minnesota researchers presented findings from their recent Twin Cities biking and walking studies. Humphrey Institute of Public Affairs assistant professor **Kevin Krizek** discussed bicycling in terms of such factors as the built environment, personal preferences, lifestyles, and attitudes. Metropolitan Design Center professor and director **Ann Forsyth** discussed walkable environments and offered ideas for enticing people to walk more.

In the public portion of the forum, Oberstar offered his vision of the possibilities and promise non-motorized transportation brings communities across the United States. "American cities are experiencing tremendous growth and face enormous challenges," he said. "The greatest of these challenges is livability: today's transportation congestion is making cities unbearable, if not unlivable."

"Non-motorized opportunities do not exist separately from other transportation options," Oberstar continued. "They are integral to an overall mobility system. Imagine a future in which most Americans live within a sensibly designed seamless network of sidewalks, trails, on-the-road bicycle facilities, and transit and rail that provides access to the majority of day-to-day destinations."

Next, Mayor Tillmann discussed the many ways Münster efficiently mobilizes approximately 300,000 people each day. He described many of the city's bike-friendly features, including separate bicycle traffic signals, bicycle- and pedestrian-only promenades, and ordinances requiring the inclusion of bike parking facilities. "Everybody rides a bike in Münster," Tillmann explained, "but we don't ride our bikes because of convenience, but rather out of conviction. This is partially why Münster is such a livable community and a nice place to call home."

Representatives from the four non-motorized transportation pilot program communities were on hand to discuss the key elements of their respective programs. The four-year pilot study is part of the Safe, Accountable, Flexible, Efficient



Steve Lockwood



Kevin Krizek



Ann Forsyth



Berthold Tillmann



Lea Schuster

Transportation Equity Act: A Legacy for Users (SAFETEA-LU) legislation passed by Congress in July 2005.

Lea Schuster, executive director of Transit for Livable Communities in St. Paul, said a key challenge for the Twin Cities' program is determining the best way to show results for such a large geographical area over a short time. "We want to target those places connected to transit stops and schools and work to increase biking and walking mode share in these places," she explained. "We will also identify the policy changes required to help keep the program sustainable after the four test years."

Darwin Hindman, mayor of Columbia, Missouri, said the city will "beef up" some of its past and current initiatives to make biking and walking accessible and get citizens interested. He described their Cycle Recycle program involving prison inmates refurbishing bikes for free distribution to lower income, minority, and immigrant populations.

Shannon Haydin, planning director for Sheboygan County, Wisconsin, pointed out that the economy of the area, once heavily industrialized, is shifting to tourism. "We cannot accommodate all the people who may want to visit our area by car. Through the pilot program, we will focus on ways tourists can take advantage of our amenities by walking or biking," she said.

Steve Kinsey, a supervisor on the Marin County, California, board of supervisors, said that for the past 15 years, Marin County has been committed to pedestrians and bicyclists. "We have adopted bike and pedestrian master plans that will be the nucleus of ideas for our pilot program,"

he continued. "We will build on past successes, focusing investments on existing programs as well as infrastructure

improvements that increase mode share."

Participants then heard from Krizek and Forsyth, along with **Billy Fields**, director of research with the Rails-to-Trails Conservancy, regarding research implications for non-motorized transportation and needs relating to the four pilot programs.

Fields pointed out that the overarching research challenge of the pilot study is scale. Another real difficulty, he added, is the short time frame. "In the next four years, we have to build the facilities, show the results, and report them to Congress."

Forsyth stressed the importance of incorporating walking into the pilot evaluations. Krizek suggested more people need to see what's going on in Europe, and then spread those ideas at home. Oberstar agreed, proposing that the leaders of the pilot programs travel to Münster and to other European cities for inspiration.

During his speech, Congressman Oberstar expressed a hope to help mitigate numerous societal problems by changing the habits of an entire generation, and he challenged all to make this the bicycling century. "Imagine, and take action to fulfill this vision in your community," he urged. "We must unravel past inadequacies and policy misjudgments to plan and implement change. To do this, we have to change attitudes. The goal of this forum is not to document the dreary statistics on biking and walking, but rather to inspire us to become agents of change."

More information about the fifth James L. Oberstar Forum for Transportation Policy and Technology is online at www.cts.umn.edu/oberstarforum. A detailed report summarizing the forum will be available in July. **CTS**



Darwin Hindman



Shannon Haydin



Steve Kinsey



Billy Fields

Evaluation finds positive views of MnPASS

The majority of I-394 users support MnPASS, the express lanes are working, and previous concerns about the project are fading. These are the top findings of an evaluation conducted by the Humphrey Institute and commissioned by the Minnesota Department of Transportation (Mn/DOT).

Highlights from the evaluation were the focus of the March 23 “Rethinking Transportation Finance Roundtable,” one of a series of such events sponsored in recent years by CTS and the Humphrey Institute’s State and Local Policy Program (SLPP) with Mn/DOT. **Robert Johns**, director of CTS, moderated the roundtable.

The I-394 MnPASS express lanes opened to the public in May 2005. MnPASS allows solo drivers to choose a faster, more reliable commute for a fee—ranging from \$.25 to \$8—based on traffic levels. Carpool and bus riders travel for free. MnPASS currently has more than

9,400 transponders in subscribers’ vehicles.

The comprehensive evaluation has two components: a public opinion survey of 549 users of the I-394 corridor commissioned by SLPP and a technical analysis of operations commissioned by Mn/DOT. The preliminary technical analysis found that MnPASS allows more vehicles to use the I-394 corridor than before the express lanes opened. Nearly 600 extra vehicles pass through the area during evening rush hour. Despite so many more vehicles using the corridor, the survey found that 85 percent of MnPASS lane users are satisfied with the speed of traffic flow in the MnPASS lane.

“The primary goal of this project was to get more vehicles through the corridor without affecting the carpool and transit traffic in the MnPASS lane,” says **Lee Munnich**, Humphrey Institute senior fellow and SLPP director. “That goal is being met.”

The public opinion survey results indicate high approval ratings for many facets of the project, including the ease of use of the toll-collecting transponders, the clarity of signage, and the safety of merge zones on the highway. Overall, the survey found that respondents approve of MnPASS by a two-to-one margin.

Fifty-nine percent say it’s a “good idea,” and citizens of all income levels are satisfied with their travel on I-394. The percentage of local residents who rate travel on I-394 as “enjoyable” is greater since MnPASS was introduced.

Nick Thompson, I-394 MnPASS project manager with Mn/DOT, noted that congestion on the corridor’s non-MnPASS lanes fell by half, mainly due to MnPASS. “Everybody has benefited,” he said.

The preliminary findings from the evaluations—performed by NuStats and Cambridge Systematics—are available at www.mnpass.org. **CTS**

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Distinguished Public Leadership

Award: Mn/DOT deputy commissioner **Doug Differt** presented the award to **Anne Beers**, assistant commissioner of the Department of Public Safety and former State Patrol chief. Differt recognized her advocacy of safety initiatives such as the .08 blood alcohol content and primary seat-belt measures, and her support for equipping patrol cars with the latest technologies. Beers said her work with Minnesota Guidestar and the CTS Executive Committee helped her have “a bigger vision of how technology could be applied to create a safer environment.” She also declared a strong belief in research, especially in human behavior. “We need to change public perception of traffic safety if we’re going to make a difference,” she said.

Matthew J. Huber Award for Excellence in Transportation Research and

Education: Cheri Marti, CTS associate

director, presented the award to two students: **Adam Zofka**, a doctoral student advised by **Mihai Marasteanu** of the Department of Civil Engineering, and **Harini Veeraraghaven**, a doctoral candidate in computer science and engineering under **Nikolaos Papanikolopoulos**.

Marasteanu said he was very fortunate to have Zofka as a grad student since 2002. Zofka has worked on “very challenging” issues relating to asphalt characterization, he said, and has developed innovative testing methods.

Papanikolopoulos said Veeraraghaven’s work is “seminal, in the sense that it’s the basis for the detection system” that his research is developing. The scene-monitoring software has been deployed at the Minneapolis-St. Paul International Airport and is part of a project with the Department of Homeland Security. “Without this great

student,” he said, “these things wouldn’t be possible.”

ITS Institute Student of the Year

Award: **Shawn Brovold** received the ITS Institute’s 2005 Outstanding Student of the Year Award at the annual TRB meeting in Washington, D.C., in January, and was also recognized at the April ceremony.

Max Donath, director of the ITS Institute, introduced **Steve Simon** of the Law School, Brovold’s advisor. Simon lauded Brovold, a mechanical engineering master’s student, as a “can-do” person and “an indication of what smart young American adults can do in our society.” Brovold’s research focuses on in-vehicle technology to correct unsafe teen driver behavior, including mechanisms to report dangerous behaviors to parents. **CTS**



Doug Differt, Anne Beers, Johns



Cheri Marti, Adam Zofka, Mihai Marasteanu



Marti, Harini Veeraraghaven, Nikolaos Papanikolopoulos



Steve Simon, Shawn Brovold, Max Donath

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that the goal of his research team was to create a tool that would run more efficiently than the standard programming approach and allow users—such as transportation professionals and first responders—to quickly find the best escape routes, even for large scenarios.

The result of the team’s work is a system with a simple, Web-based user interface. “With about three to four clicks,” he said, “people can get evacuation



Shashi Shekhar, Daryl Taavola, Erik Seiberlich, Sonia Morphew, Cathy Clark, Betsy George, Qingsong Lu, Laurie McGinnis, Robert Vasek

routes.” Mn/DOT has already used the algorithm to develop a metro evacuation traffic management plan for the Twin Cities area.

Shekhar then shared insights gained during system development. First, the researchers found that a walking-based evacuation in a one-mile area is roughly three times faster than driving on congested roads. “This is a really new insight from this software and project,” he said. Also, the research found different evacuation needs for day and night due to work-related population shifts.

Based on the findings, Shekhar recommended that policymakers consider adding extra capacity, especially more lanes and walkways in key bottleneck areas of the transportation network.

To test the new system, Shekhar ran a comparison with the existing evacuation plan for the nuclear plant near Monticello. Evacuation time is about 30 percent faster with the new tool, he said, and computation time falls from 268 to 162 minutes.

The research partnership was very useful for shaping the project and focusing the work, Shekhar concluded. Future work may include adding modes such as transit and bicycling to the algorithm. (To

learn more about the project, see the CTS Research Web page at www.cts.umn.edu/research/.)

Project partners included:

- **Shashi Shekhar, Qingsong Lu, Sango Kim, and Betsy George** (Department of Computer Science and Engineering)
- **Sonia Morphew, Cathy Clark, and Robert Vasek** (Mn/DOT)
- **Daryl Taavola and Erik Seiberlich** (URS Corporation)

A subcommittee of the CTS Education/Outreach Council selected the award recipient, as well as a second project for special partnership recognition. The second project and its partners were:

“Development, Testing, and Implementation of the Minnesota Accelerated Load Testing Facility (Minne-ALF) for Pavements”

- **Tom Burnham and Doug Schwartz** (Mn/DOT)
- **Mark B. Snyder** (independent consulting engineer)
- **Dave Rettner and Rebecca Embacher** (American Engineering Testing)
- **Arturo Schultz and Lev Khazanovich** (Department of Civil Engineering)
- **Bill Lohr** (Federal Highway Administration) **CTS**

Students receive national, regional awards

Michael Iacono received the sixth annual student paper award from the American Society for Public Administration’s (ASPA) Section on Transportation Policy and Administration. Iacono is a graduate student with appointments in the Humphrey Institute’s urban and regional planning program and in the Department of Civil Engineering.

Iacono’s paper, “Dedicated Funding and Urban Transit Performance: Some Empirical Evidence,” was selected from among 25 submissions. Iacono received the honor at the 67th National ASPA Conference, held in Denver during the first week of April 4. CTS provided a travel stipend for him to attend.

The Twin Cities Council of Supply Chain Management Professionals (CSCMP) roundtable announced its 2006 scholarship winners. **Lindsey Carmichael** was awarded the \$2,000 monetary scholarship. Carmichael is a junior at the University of Minnesota Carlson School of Management, where she is a triple major in retail merchandising, supply chain management, and marketing. She was recently elected president of the Undergraduate Supply Chain and Operations Club

Varuni Gunasekara was awarded the CSCMP trip sponsorship award. She will represent the Twin Cities roundtable at the 2006 national CSCMP conference in San Antonio, Texas, in October. Gunasekara is a student at the University of Wisconsin-Superior, where she is a transportation and logistics management major. **CTS**

Upcoming events

To publicize your event, call CTS at 612-626-1077, fax 612-625-6381, or e-mail snopl001@cts.umn.edu. Visit the CTS Web site—www.cts.umn.edu—for more comprehensive event information.

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| <p>May 24–25 CTS Seventeenth Annual Transportation Research Conference, St. Paul. Contact Shirley Mueffelman, 612-624-4754, conferences2@cce.umn.edu.</p> <p>July 16–18 2006 Midwest Regional & Shortline Railroad Annual Conference, Alexandria. Sponsor: Minnesota Regional Railroads Association. Contact Patrick Murray, 651-556-9024, pmurray@mandklaw.com, or see www.minnesotarailroads.com.</p> | <p>Oct. 4–5 Minnesota Fall Maintenance Expo, St. Cloud. Contact Kathy Warren, 651-351-7432, kwarren@usinternet.com.</p> <p>Oct. 11–12 AirTAP Fall Forum, Breezy Point. Contact Mindy Carlson at 612-625-1813, carlson@cts.umn.edu. CTS</p> |
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