



Study identifies value capture strategies to raise transportation revenue

Current funding and finance mechanisms for transportation face serious challenges. A possible alternative revenue source—value capture—is the topic of a recently completed research project led by CTS.

“The project provides new financing methods that are not currently considered or are not available under current Minnesota state statutes,” says **David Levinson**, the Braun/CTS Chair in Transportation Engineering at the University of Minnesota and one of the lead investigators of the study. Other principal investigators were **Zhirong (Jerry) Zhao**, assistant professor in the Hubert H. Humphrey Institute of Public Affairs, and **Adeel Lari**, research fellow in the Humphrey Institute. The team also included **Michael Iacono**, a research fellow in the Department of Civil Engineering

Value capture is a type of infrastructure financing in which increases in private land



David Levinson

Zhirong “Jerry”
Zhao

Adeel Lari

values generated by public investment are in part “captured” to help pay for infrastructure projects.

CTS was commissioned by the state legislature in 2008 to conduct this first-of-its-kind research to look at value capture as a potential finance mechanism for future infrastructure investments in Minnesota.

“The need for this study grew out of the transportation funding debate in the 2008 legislative session,” says **Robert Johns**, CTS director and study principal investigator.

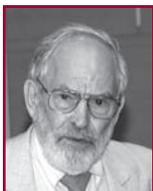
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Minnesota’s Mohring honored at international economics conference

Researchers, practitioners, and policymakers gathered at the University of Minnesota’s Hubert H. Humphrey Institute of Public Affairs June 15 and 16 for the fourth International Transport Economics Conference (ITrEC). The conference was hosted by CTS.

Nearly 100 conference attendees were welcomed by **David Levinson**, the Braun/CTS chair in transportation engineering; **Lee Munnich**, director of the State and Local Policy Program at the Humphrey Institute; and CTS assistant director **Dawn Spanhake**. The conference included plenary sessions focusing on transport political economy and economic theory as well as a variety of breakout sessions.

The conference also featured a special plenary panel in honor of professor emeritus **Herbert Mohring**, credited with launching



Herb Mohring

transport economics at the University of Minnesota. Mohring’s career has included several important contributions to the field in the areas of road pricing and transit analysis; in addition to his own research, he has served as advisor to more than 30 doctoral students. The panel, chaired by Munnich, included presentations by **Robert Lindsey** of the University of Alberta and **Eric Verhoef** of the University of Amsterdam extending Mohring’s seminal work on full-cost recovery of highway tolls, as well as a personal perspective on Mohring’s career and influence by **David Lewis** of HDR/HLB Decision Economics.

Mohring is perhaps best known for identifying a significant positive feedback

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Researchers reveal traffic safety ‘hot zones’

Rural transportation safety experts at the University of Minnesota launched a new national service in July to help drivers identify the most dangerous portions of upcoming trips.

SafeRoadMaps.org is a service that immediately identifies the location of crashes through an online, searchable map. The service was launched last summer by the University of Minnesota’s Center for Excellence in Rural Safety (CERS), but it now flags the nation’s top 100 “hot zones,” the rural areas that have experienced the most fatalities over the past five years. The hot zones are presented in a Google Map-based format, where viewers can zoom from a national map showing all 100 zones down to a photo of each individual section of the road.

While 29 states have rural areas in the Top 100, the 10 states with the most “hot zones” are Arizona, Arkansas, California, Florida, Indiana, Louisiana, Maryland, North Carolina, Texas, and Virginia (in alphabetical order).

“Drivers often think of rural safety as an issue only for the least populous states,” says **Tom Horan**, CERS research director. “But this analysis

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Value Capture study featured at transportation funding and finance forum

University of Minnesota research was featured at “The Future of Transportation Funding and Financing Alternatives” forum held May 1. The event provided an opportunity to hear from national, state, and local experts and explore options for Minnesota.



Margaret Donahoe



Tom Sorel

discussion of federal funding and finance. **Kathy Ruffalo**, a member of the National Surface Transportation Infrastructure Financing Commission, relayed some of the commission’s recommendations.

(To read the commission’s final report, which was released in February, see <http://financecommission.dot.gov>.)

During the forum luncheon, **Zhirong (Jerry) Zhao**, assistant professor in the Hubert H. Humphrey Institute of Public Affairs, presented highlights from the recently completed “Value Capture for Transportation Finance” study (see page 1 for more about the study findings).

The forum began with welcoming remarks from **Robert Johns**, director of CTS, who also moderated the morning sessions; **Margaret Donahoe**, executive director of the Minnesota Transportation Alliance; and **Tom Sorel**, commissioner of the Minnesota Department of Transportation (Mn/DOT).

Donahoe said the goal of the forum was “to start a conversation about all the possibilities—the whole universe of ideas for dealing with our transportation system.” Sorel cited three key options for consideration: public-private partnerships, vehicle-miles traveled (VMT) fee systems, and value capture. Value capture can be “very transformational,” he said. “It will be a key part of our future.”

The forum then turned to a panel

Donahoe returned to the podium to present Minnesota’s priorities (online at www.transportation.alliance.com) for the federal surface transportation authorization bill now under debate in Congress.

Lea Shuster, executive director of Transit for Livable Communities, shared highlights from the blueprint issued by Transportation for America (T4america.org), a broad coalition of housing, business, environmental, public health, transportation, equitable development, and other organizations.

The second panel looked at highway funding and finance in Minnesota. **Brad Larson**, director of traditional and innovative finance in Mn/DOT’s Office of Financial Management, noted a number of funding sources (e.g., VMT fees, value capture sources, emissions fees) and financing techniques (e.g., private financing) not now utilized in the state. “We’ll need to tap into all of these,” he said, and “align them with the right types of projects.” **Dave Sonnenberg**, legislative

liaison for the City Engineers Association of Minnesota, and **Mike Sheehan**, county engineer with Olmsted County, presented city and county priorities, respectively.

The next panel, focusing on Minnesota transit funding and finance, featured **Arlene McCarthy**, director of transportation services with the Metropolitan Council; **Peter McLaughlin**, chair of the Counties Transit Improvement Board; and **David Tripp** of the Minnesota Public Transit Association.

The final panel focused on private funding and finance. **Katie Nees** of Jacobs Engineering said that while the private sector offers needed financing experience, it expects return on investment. **Lee Norris** of CityGate discussed the possibility of the public sector partnering with a “master developer” to create planned communities along transportation corridors, and **Luke Taylor** of Macquarie Capital described the growing use of concession agreements in Australia.

Forum sponsors were the American Council of Engineering Companies of Minnesota, Associated General Contractors of Minnesota, CTS, Mn/DOT, Minnesota Public Transit Association, Minnesota Transportation Alliance, and Transit for Livable Communities. The forum was the first of the education/outreach efforts resulting from the Mn/DOT Commissioner’s Forum on Innovative Transportation Finance held in December 2008. **CTS**

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“Legislators and interest groups felt new methods needed to be investigated for financing our transportation system and asked CTS to study how value capture policies might be implemented in Minnesota.”

The study identified eight policies that can be classified as value capture strategies: land value tax, tax increment financing, special assessments, transportation utility fees, development impact fees, negotiated exactions, joint development, and air rights. Some of the strategies target property

owners, while others target developers. The strategies differ in how, when, and where they may be applied. They also give different outcomes, which can be assessed along four criteria:

economic efficiency, equity, sustainability, and feasibility.

Important legal considerations for units of government wishing to apply some or all of these policies were also considered. Statutory adjustments in Minnesota law would be needed to allow for

implementation of several of the policies.

CTS will offer a series of educational workshops for elected officials and policymakers during the summer and fall of 2009 to explain the study results.

The technical report, the report to the legislature, and a policy summary of the research can be found at www.cts.umn.edu/research/ValueCapture. **CTS**



New research reports available

The enclosed insert lists research reports written by University researchers and published by CTS, Mn/DOT, the Minnesota Local Road Research Board, and other sponsors since March 2009. **CTS**

LTAP Roads Scholars honored at maintenance expo

The Minnesota Local Technical Assistance Program (LTAP), which is housed at CTS, honored recent graduates of its Roads Scholar program at the annual Spring Maintenance Training Expo in April. The expo is a two-day event focusing on spring and summer roadway maintenance issues.

Jim Grothaus, director of Minnesota LTAP, delivered the opening remarks and outlined the day's events. He also moderated the Roads Scholar ceremony.

Following the remarks by Grothaus, **Laurie McGinnis**, associate director of CTS, gave an overview of the education opportunities offered by CTS and Minnesota LTAP. She then introduced Mn/DOT commissioner **Tom Sorel**, who discussed some of the challenges facing the transportation industry in Minnesota and gave a summary of Mn/DOT's new strategic plan.

Sorel then presented certificates to the 2008 graduates of the LTAP Roads Scholar program. This year's graduating class was the

largest ever, featuring 23 street and highway maintenance workers from across the state. More than 2,000 students are enrolled in the Roads Scholar program (www.mnltap.umn.edu/RoadsScholar). Grothaus and Minnesota LTAP program coordinator **Mindy Carlson** assisted Sorel during the ceremony.

The Roads Scholar program combines opportunities such as maintenance expos and LTAP workshops to create a structured curriculum that helps participants gain a deeper understanding of their work. According to graduate **Myron Malecha**, a



Laurie McGinnis



Jim Grothaus



Myron Malecha



Tom Sorel

highway maintenance worker from Rice County, his experience was extremely valuable. "The training programs give you a better understanding of your job and better ways to perform them," he said.

Expo sponsors were the Minnesota Local Road Research Board, Minnesota LTAP, Minnesota Department of Transportation, Minnesota Street Superintendents Association, and the American Public Works Association—Minnesota Chapter. **CTS**

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property of transit systems, now known as the Mohring Effect. In a 1972 paper, Mohring showed that increasing the frequency of transit service (and thereby reducing wait times) leads to an increase in demand as more potential riders choose transit; this growth in ridership drives further increases in service as the transit operator responds to the availability of more paying riders. The Mohring Effect influenced the development of

transit requirements included in the Americans with Disabilities Act.

In his remarks, Lewis described how Mohring had advanced the practice of transport economics in the private sector by encouraging engineers to incorporate economists' theories of human behavior into their planning models. Lewis credited Mohring with raising the credibility of private consulting economists through his emphasis on "getting it right" and

grounding the discipline in a thorough knowledge of the economic literature.

The roughly 70 conference presentations covered a wide range of topics, including road pricing, freight transport, urban transit systems, and congestion. Conference presentation materials are available in PDF form on the conference Web site, www.transporteconomics.org. **CTS**

Executive Committee welcomes new members

At its July meeting, the CTS Executive Committee, chaired by **Fred Corrigan**, announced the following new members:

- **Greg Lindsey**, associate dean of the Hubert H. Humphrey Institute of Public Affairs at the University of Minnesota. He previously served as dean of the Indiana University School of Public and Environmental Affairs in Indianapolis. He replaces Professor **Robert Kudrle** of the Humphrey Institute.
- **Bob McFarlin**, Metropolitan Council member and vice president of corporate, community, and public affairs at Weber Shandwick in Minneapolis. Met



Greg Lindsey



Bob McFarlin



Peter McLaughlin

Council chair **Peter Bell** selected him to replace former council member **Mary Hill Smith**.

- **Peter McLaughlin**, commissioner for the Hennepin County Board of Commissioners. He chairs the Hennepin County Regional Rail Authority and the

Public Works, Energy, and Environment Committee.

CTS staff joins the committee in expressing appreciation to the following departing members:

- **Duane Crandall**, AAA Minnesota/Iowa
- **Doug Differt**, URS Corporation
- **Ron Erhardt**, former Minnesota state representative
- **Linda Koblick**, Hennepin County commissioner
- **Timothy Mulcahy**, University of Minnesota
- **Richard Thomas**, consultant
- **Donn Wiski**, Transportation Advisory Board **CTS**

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shows that drivers need to be extra alert in rural regions of the more populous states as well.”

The newest version of **SafeRoadMaps.org** offers several other enhancements over the original version released in 2008. **SafeRoadMaps** now allows anyone visiting www.saferoadmaps.org to enter a zip code, municipality name, or street address and immediately see a map or satellite image of the road fatalities that have occurred in the chosen area over the past five years. Details about each crash are also available, such as whether the driver was wearing a seat belt, drinking, or speeding. The tool also notes which life-saving public



Tom Horan

policies, such as strong seat belt laws, are being employed in the chosen area.

CERS was created in 2005 through the leadership of Minnesota Congressman **James Oberstar**, chairman of the U.S. House Committee on Transportation and Infrastructure.

The SafeRoadMaps.org tool is being used in a variety of ways to educate the public about road fatalities. For instance, driver’s education leaders have advocated use of the tool as a means to teach new drivers the importance of following the rules of the road. Drivers are exploring their most common routes and being educated about the need to take sensible precautions. Finally, road safety officials are using the tool to better pinpoint where policy, structural, and traffic management



Lee Munnich

adjustments are most needed.

“SafeRoadMaps is not about casting blame,” said **Lee Munnich**, CERS director. “This is about making sure drivers are informed and safe, and policymakers have a user friendly tool to guide their safety related decisions.”

In addition to rural hot zones, SafeRoadMaps now also identifies urban hot zones. Eighteen states (Minnesota not among them) have urban areas in the Top 100.

CERS operates as a joint venture of the University of Minnesota’s Humphrey Institute of Public Affairs and CTS. **CTS**

TZD conference brochure enclosed

The 2009 Toward Zero Deaths Conference will be held October 28 and 29 in Duluth, Minn. The conference provides a venue to share best practices in the areas of engineering, enforcement, education, and emergency medical services, as well as to chart the course for a future with fewer traffic fatalities and life-changing injuries.

Sponsors are the Minnesota Departments of Public Safety,

Transportation, and Health and the Minnesota Toward Zero Deaths program. The conference is being hosted by CTS and facilitated by the College of Continuing Education at the University of Minnesota.

The luncheon presentation on October 28 will feature a presentation by **Jim Hedlund** of Highway Safety North titled “Changing the Traffic Safety Culture in

the United States.”

A brochure with a detailed program schedule and registration materials is enclosed. For more information, visit www.tzd.state.mn.us or contact **Meg Stautz** at 612-624-4754, cceconf2@umn.edu.

Summaries of the previous five conferences, published by CTS, are available for download at www.cts.umn.edu/publications. **CTS**

Upcoming events

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

Aug. 30 – Sept. 2	ASCE 14th Conference on Cold Regions Engineering, Duluth. See http://content.asce.org/conferences/coldregions2009 .	Oct. 7–8	Minnesota Fall Maintenance Expo, St. Cloud. See www.mnltap.umn.edu/Events .
Sept. 1–2	do.walk do.bike Build momentum in Minnesota event, Minneapolis. Sponsor: Blue Cross and Blue Shield of Minnesota. See www.preventionminnesota.com .	Oct. 25–27	2009 American Segmental Bridge Institute 21st Annual Convention, Minneapolis. See www.asbi-assoc.org/news/events .
Sept. 13–17	International Conference on Ecology & Transportation. Host: Mn/DOT. See www.icoet.net/ICOET2009.asp .	Oct. 28–29	Toward Zero Deaths Conference, Duluth. See www.minnesotatzd.org .
Sept. 21–23	Minnesota/Wisconsin Public Transit Conference, Duluth. See www.mpta-transit.org .	Dec. 2	Minnesota Association of Asphalt Paving Technologist’s Annual Asphalt Conference, Brooklyn Park. See http://mn-aapt.org/ .
Sept. 28–29	AirTAP Fall Forum, Mankato. See www.airtap.umn.edu .	Apr. 27–28	21st Annual CTS Transportation Research Conference, RiverCentre, St. Paul. CTS