



Automatic detection and enforcement could reduce traffic fatalities, says safety expert

Speed kills, but your chances of getting caught speeding or running a red light are very low, and a ticket may seem more like bad luck than punishment for dangerous driving. New technologies, however, could make detection a near certainty and issue tickets automatically—with escalating fines the more often you're caught. By using technology to shape human behavior, said **Leonard Evans**, president of Science Serving Society, the United States could make a dramatic dent in traffic fatalities.

Evans spoke February 9 at the CTS Winter Luncheon, sponsored by the Intelligent Transportation Systems (ITS) Institute at CTS. Following a welcome by CTS director **Robert Johns**, Institute director **Max Donath** introduced Evans, a 33-year veteran of GM, as “someone who has made a strong case for safety.”

In the 1960s, Evans began, the United States had the safest roads in the world, but we're now in 16th place and still sinking. Fatalities in three comparable countries—Canada, Great Britain, and Australia—fell by roughly half from 1979 to 2002. Ours fell just 16 percent. If the U.S.



Leonard Evans

traffic fatality rate had declined as it has in those countries, he said, “we would now be killing 15,000 fewer people on our roads every year.”

The pattern remains the same even when accounting for differences among the countries in number of vehicles and vehicle miles traveled. Overall, Evans said, a “staggering” 200,000 fewer Americans would have died in auto crashes during this period if our rate had matched theirs.

What caused this discrepancy? From the 1970s on, Evans asserted, “U.S. policymakers ordered priorities almost opposite to where technical knowledge indicated the greatest benefits.” The American approach to safety emphasized vehicle design and crash survivability, while other countries aimed their policies more at changing driver behavior through seat belt laws and (more recently) automatic monitoring technologies. By discouraging risky driving, their approach works toward the goal of avoiding crashes in the first place, Evans said.

As an example, he recited the story of airbags. Safety advocates urged an airbag mandate even though technical experts knew of

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CTS Research Conference to highlight privacy issues

Registration has begun for the CTS Seventeenth Annual Transportation Research Conference, to be held May 24–25 at the Saint Paul RiverCentre.

The conference will begin with a plenary session titled “Privacy and Movement: New Challenges for Technology-Enhanced Transportation.” Professor **Colin Bennett**, a leading privacy scholar from the University of Victoria in British Columbia, will describe current and future privacy risks associated with technology-enhanced transportation systems at the individual, commercial, and societal levels.

Following his address, three local panelists will respond and share their thoughts: **Ken Keller**, Charles M. Denny Jr. Professor

of Science, Technology, and Public Policy in the Humphrey Institute of Public Affairs; **Marthand Nookala**, assistant administrator of public works with Hennepin County; and **Dan Murray**, vice president of research with the American Transportation Research Institute.

Privacy is also the topic of one of the first concurrent sessions. “Privacy and Movement: Balancing the Benefits and Risks,” will be moderated by **Lee Munnich**, director of the State and Local Policy Program at the Humphrey Institute, and include three presentations:

- “Using ITS to Reduce Teenage Road Mortality: Impact on Privacy,” **Max Donath**, director of the Intelligent Transportation Systems (ITS) Institute at CTS

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April events: Oberstar Forum, Roundabouts, and more

What do biking and walking, roundabouts, and gravel roads have in common? They're all topics of April events.

Oberstar Forum

The fifth **James L. Oberstar** Forum on Transportation Policy and Technology will explore the value of integrating bicycling and walking into communities. It will be held **April 10** at Coffman Memorial Union in Minneapolis.

The forum will include remarks by Rep. Oberstar; a keynote presentation by **Berthold Tillmann**, mayor of Münster, Germany; and two panel discussions—one on plans for non-motorized transportation in four U.S. communities, and the other about research and evaluation implications for non-motorized transportation.

For more information, visit the Oberstar Forum Web page at www.cts.umn.edu/oberstarforum.

Minnesota Roundabouts Conference

Is Minnesota behind in using roundabouts for traffic control? Learn what roundabouts are, where they might be used, how

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New mapping tools aid regional analysis, planning

Connecting jobs to where people live and housing to where people work is an important issue for the future development of the Twin Cities area. Two new Web-based mapping tools provide the data and analysis needed to guide community development and enhance the efficiency of transportation services. The tools were the focus of a University of Minnesota Regional Issues Roundtable held January 13 in Minneapolis.

Sponsors were the Humphrey Institute's State and Local Policy Program (SLPP), the Center for Urban and Regional Affairs (CURA), and CTS. CURA director **Tom Scott** gave welcoming remarks, and SLPP director **Lee Munnich** served as moderator.

The first tool presented was *On the Map*, an interactive mapping application under development by the Longitudinal Employer-Household Dynamics Program at the U.S. Census Bureau. **John Carpenter**, president of Minnesota-based Excensus (one of the project's codevelopers), described the tool and gave a short demonstration.

On the Map users can select a geographic area and answer travel pattern questions such as:

- Where do workers live that are employed in the area?
- What are the workplace destinations for workers living in the selected community or neighborhood?
- How do the employment patterns compare in terms of worker origin-destination patterns, worker ages, monthly earnings, and industry-level employment? How are these areas changing over time?



Kris Nelson



Gary Barnes

Confidentiality is strictly protected by the use of state-of-the-art disclosure-avoidance methods.

The tool has many possible uses. Transit agencies could use its rich data set to plan more efficient operations, Carpenter said, and emergency management officials could use it to map evacuation routes and understand the impacts of a disaster on employment and infrastructure.

Minnesota, one of 14 pilot states participating in the pilot program sponsored by the U.S. Census Bureau, has played a lead role, Carpenter said. Forty-one states now are involved.

Version 1.0 was released to the public in January, and version updates are planned as funding permits. To learn more, send an e-mail to dsd.local.employment.dynamics@census.gov or visit <http://lehd.dsd.census.gov>.

The second tool, *Minnesota 3-D* (M3D), is a dynamic, GIS-based Internet application that brings together employment, housing, and development information and analysis for the Twin Cities metro. The tool builds on work of the Census Bureau by combining labor market origin-destination data with additional data on transportation and services (e.g., schools and childcare centers), explained **Kris Nelson**, community program director with CURA.

Initiated in 2004, the three-year development project is funded by a Technology Opportunities Program grant from the U.S. Department of Commerce. The project is a partnership of CURA, the Minnesota Department of Employment and Economic Development (DEED), the Minnesota Housing Finance Agency, the Minnesota

Office of Revenue, the Metropolitan Council, Ramsey and Hennepin Counties, and various Twin Cities neighborhood organizations and community development corporations. A beta version is expected in March; visit www.cura.umn.edu/M3D.

Like *On the Map*, M3D has many applications. Workforce centers, for example, could use the tool to point job-seekers to areas needing workers, said **Oriane Casale**, assistant director of the DEED Labor Market Information Office. A city's economic development office could use it to attract employers. Both workers and employers could see where childcare centers and bus routes are when making location decisions.

Researchers also benefit from the more timely and comprehensive data available with these tools. Previous data sets were only updated every 10 years, said **Gary Barnes**, transportation economist with SLPP, and were based on a small subset of census data. The new tools will be updated annually (funding permitting) and are based on all workers rather than just a sample. "The yearly update is of real value, especially in rapidly changing areas like developing suburbs," he said.

The transportation community stands to gain from the tools. Transit planners will be able to better understand why transit succeeds in some areas but not others, he said, and traffic forecasters will be able to see more clearly how development changes commuting patterns.

Munnich returned to the podium to guide a lively question-and-answer period and offer closing remarks. Thanks to M3D, he said, a broader range of people may use geographic information systems than ever before. "It is not overstating to say we have a killer application." **CTS**

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an increased fatality risk to children and shorter adults. While acknowledging that airbags provide a "modest" benefit, Evans believes mandatory seat belt laws would have been much more effective. When the United Kingdom passed a mandatory seat belt law in 1981, "there was an abrupt 20 percent drop in deaths of affected occupants, and close to a 10 percent drop in the overall fatality count," he said. Canada and Australia saw similar improvements. Focusing our efforts on airbags and delay-

ing mandatory seat belt laws was responsible for nearly half the additional 200,000 American deaths, Evans claims.

In his vision for a safer tomorrow, Evans proposes using technologies such as photo radar and red-light cameras to increase the small fraction of drivers currently monitored by law enforcement. Studies of various automatic speed-detection systems found a 19 percent crash reduction, he said, and a review of red-light cameras indicated a 25 to 30 percent drop.

Automatic surveillance systems offer a number of advantages, Evans said. They vastly increase the likelihood of detection and seem more objective and less capricious to drivers. Blanket coverage means the unsafe patterns of drunk drivers are more likely to be noticed sooner. Efficiency also improves: fewer officers are needed, and tickets can be mailed directly to the violator.

To gain public support, Evans believes

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Truck-weight compliance training under way

Truck traffic in Minnesota continues to grow each year. Along with this growth comes concern by state, county, city, and township transportation authorities about possible damage to routes from overweight trucks. There are ways, however, for shippers and carriers to adjust their vehicles and loads to minimize roadway damage.

The Truck-Weight Education and Outreach Program is designed to share these practices. The program promotes voluntary compliance to reduce damage to public roads and highways—and the resulting repairs and expense due to overweight vehicles.

The primary component of the program is a series of free training sessions now under way across the state (see schedule). The training covers a range of topics: legal weight; when and where weights change; and laws governing gross weights, axle weights, tire weights, road-restriction weights, and seasonally increased (winter and harvest) weights. The class also includes classroom exercises to help students identify concerns in their own trucks, and take-home materials to assist them with their own configurations and options.

Funded by the Minnesota Department of Transportation, the training is presented



by Northland Community and Technical College of Thief River Falls and East Grand Forks, and coordinated by the Minnesota Local Technical Assistance Program (LTAP) at CTS. It builds on the pilot program launched in November 2001 by Mn/DOT in cooperation with the Minnesota Department of Public Safety, local area counties, and the Northland Community and Technical College. Since that time, Mn/DOT and the Minnesota Local Road Research Board, in cooperation with Minnesota LTAP, have expanded the course offerings.

Many parties can benefit from the training: trucking firms that want to load to the maximum legal weight possible; scale operators; farm truck owners and operators; aggregate haulers; truck manufacturers; township and county authorities; truck driving students; and more.

The May 24 luncheon will feature **Thomas DeCoster**, executive director of the AASHTO Leadership Institute (see page 4).

The full program is posted on the CTS Web site at www.cts.umn.edu/events/rescon. To register, contact **Shirley Mueffelman**, 612-624-4754, conferences2@cce.umn.edu, or register online at Register.cce.umn.edu and enter Event ID #178179. **CTS**

In closing, Evans stressed that traffic safety must be seen as a component of public health that government has an obligation to address. Enormous casualties are accepted as fate by the public and largely ignored by the media, fostering the attitude that little can be done to prevent them. With technology and relatively modest changes, however, Evans believes a breakthrough is possible.

Evans' talk was featured in the February 20 *St. Paul Pioneer Press*. **CTS**

Workshop Dates and Locations:

March 17	Bloomington
March 24	Bemidji
March 31	Duluth
April 7	Marshall
May 5	St. Cloud
May 8	Shoreview

For more information, call **Shirley Mueffelman** at 612-624-4754 or see the Minnesota LTAP Web site: www.mnltap.umn.edu/workshops/customized/customized01.html.

Participants will receive one credit in Minnesota LTAP's Roads Scholar Program (see www.mnltap.umn.edu/programs/roadsscholar).

In addition to the training, the 2006 Truck-Weight Education and Outreach Program, administered by Minnesota LTAP, will feature expanded information and outreach services. This will include targeted presentations, a Web site, and technical assistance for industry shippers, carriers, and public agency personnel on the proper application of Minnesota Commercial Vehicle Weight Laws and enforcement policies. **CTS**

CTS adds staff to meet program needs

CTS welcomed two new staff members in February.

Penny Harris fills the new position of contract coordinator. She is responsible for coordinating contract management processes for CTS and assisting University principal investigators in the development of grants/contracts. She previously was a grant administrator with the University's Sponsored Projects Administration, and before that a senior accountant with Sponsored Financial Reporting.

Jan Lucke accepted a new program coordinator position. She will work to advance CTS transportation research programs, with special emphasis on activities related to the ITS Institute. She will also provide coordination resources for the delivery of CTS projects. Prior to joining CTS, Lucke worked six years as a senior associate with Richardson, Richter & Associates. She holds a master's degree in public administration from Hamline University. **CTS**

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- Commercial Benefits and Risks from ITS," Dan Murray
- "Law Enforcement and ITS," Lt. **Gregory Reinhardt**, Minneapolis Police Department

Other concurrent sessions will touch on topics ranging from the Hiawatha LRT to a political history of the interstate highway system. A selection of projects will also be on display as posters during the morning and afternoon breaks on May 24.

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the sole and explicit purpose of traffic law should be to change behavior, and not to serve as a source of revenue. Fines should start low for minor and infrequent violations and escalate to higher amounts (and even criminal sanctions), and not be deposited with general tax funds.

Regarding privacy concerns, Evans said safeguards could be put in place, noting that Americans already accept airport security measures and retailers' closed-circuit monitoring.

Spring luncheon: Multiple generations, new workplace challenges

Today's leaders face many unique challenges. One of these is a transportation workplace comprising four generations—a first for modern-day leaders. In "From Pearl Harbor to Helicopters: How to Lead in a Multigenerational Transportation Workplace," **Thomas DeCoster** will explore in-depth the work-related values that differentiate the generations. His presentation will take place at the CTS Spring Luncheon on May 24.



Thomas DeCoster

DeCoster is the executive director of the Leadership Institute at the American Association of State Highway and Transporta-

tion Officials (AASHTO).

While each generation has a significantly different value set, DeCoster says, all four are capable of producing outstanding work products and services. To achieve this level of performance, the contemporary leader needs to utilize values-driven processes and practices that elicit maximum results. DeCoster's presentation will identify and explore specific leadership practices and processes unique to each generation, with particular emphasis on employee recruitment, motivation, and retention.

In addition to his AASHTO position, DeCoster is the director of the Management Institute at Indiana Hospital & Healthcare Association. He previously was a professor of public and environmental affairs and the director of executive education at Indiana University.

The luncheon is held in conjunction with the CTS 17th Annual Transportation Research Conference (see page 1). To register, contact **Shirley Mueffelman**, 612-624-4754, conferences2@cce.umn.edu, or register online at Register.cce.umn.edu and enter Event ID #178179. **CTS**

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to plan and design them, and how they operate at this conference, April 5–6 in Brooklyn Center. Speakers from Florida, Virginia, Colorado, California, Wisconsin, and Oregon, as well as Minnesota roundabout pioneers, will share their experiences.

Preliminary research indicates roundabouts reduce speed, fatalities and accident severity, delays, and vehicle emissions.

CTS is hosting the event. Sponsors are

Mn/DOT and its State Aid Division, the Minnesota County Engineers Association, the City Engineers Association of Minnesota, and the Federal Highway Administration. To register, see www.dot.state.mn.us/stateaid.

Spring Maintenance Training Expo

Gravel roads, street sweeping, and trenching are just some of the topics on the program of the 2006 Minnesota Spring

Maintenance Training Expo, April 11–12 in St. Cloud.

The expo is sponsored by the Minnesota Local Technical Assistance Program at CTS, the Minnesota Local Road Research Board, Mn/DOT, the Minnesota Street Superintendents Association, and the Minnesota Public Works Association.

Register online at www.mnltap.umn.edu/register/expo, or call **Teresa Washington** at 612-624-6225. **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.

March–May	"Our Changing Cities: An Urban Lecture Series," Department of Geography, Minneapolis. See www.geog.umn.edu/Events/Coffee_Hour.html .	Apr. 10	5th James L. Oberstar Forum on Transportation Policy and Technology, Coffman Memorial Union, Minneapolis. Contact Shirley Mueffelman , 612-624-4754, conferences2@cce.umn.edu .	May 10–12	Minnesota Public Works Association Spring 2006 Conference, Grandview Lodge. Contact Oona Besse , 612-624-3492, conferences3@cce.umn.edu .
March 16–17	Annual Concrete Paving Workshop, Duluth. Call the Concrete Paving Association of Minnesota, 651-762-0402.	Apr. 11–12	Minnesota Spring Maintenance Training Expo, St. Cloud. Contact Shirley Mueffelman , 612-624-4754, conferences2@cce.umn.edu .	May 24–25	CTS Seventeenth Annual Transportation Research Conference, St. Paul. Contact Shirley Mueffelman , 612-624-4754, conferences2@cce.umn.edu .
March 22–23	Mn/DOT Environmental Stewardship and Streamlining Workshop, Brooklyn Center. Contact Julie Grazier , 612-624-3044, conferences5@cce.umn.edu .	Apr. 17	Graduate Certificate in Transportation Studies Information Session, Minneapolis. Contact Stephanie Jackson , 612-624-8398, sjackson@cts.umn.edu .	June 4–7	North American Travel Monitoring Exhibition and Conference, Minneapolis. Visit www.trb.org/conferences/natmec . CTS
Apr. 5	5th Annual Road Salt Symposium, St. Cloud. Contact Jeanne Prok of the Freshwater Society, 952-472-3540, jeanne@freshwater.org .	Apr. 26	8th Annual Harbor Safety Committee Conference, Washington, D.C. Cosponsors: U.S. Coast Guard and the Marine Board/Transportation Research Board of the National Academies. Visit www.TRB.org/Conferences/HSCC .	Mark your calendars: 2006 AirTAP Fall Forum Wednesday and Thursday, Oct. 11–12 Breezy Point Resort, Breezy Point, Minn. For more information, contact Mindy Carlson at 612-625-1813 or e-mail carlson@cts.umn.edu .	
Apr. 5–6	Minnesota Roundabouts Conference, Brooklyn Center. Contact Oona Besse , 612-624-3492, conferences3@cce.umn.edu , or visit www.dot.state.mn.us/stateaid .				