**App May Play a Role in Reducing Traffic Accidents**

*Uses Sensor on Any Smartphone to Record Driving Behavior Including Hard Braking, Rapid Acceleration, and Swerving and Speeding*

In the world of ever increasing apps for smartphones, a new app is creating attention since it can potentially have a significant impact on traffic safety.

Driversiti, the company that developed the app (called Driversiti), recently started applying their app. The Driversiti app can tell if you’re in a car, and how that car is being driven. The phone instantly detects unsafe behaviors like hard braking, rapid acceleration, swerving and speeding – and can even generate audio alerts to coach drivers out of bad habits. In addition, Driversiti enables the phone to differentiate between distracted driving and use of the phone by a passenger. It also immediately detects a crash – a patented capability that works for speeds as low as 25 miles-per-hour.

Driversiti reports that “all of this happens in real time, with minimal battery and data usage – and without any input required from the driver.”

Driversiti’s app is currently being used by fleets like SuperShuttle to turn their drivers’ mobile devices into safety devices, at a very low cost. The app helps fleet managers understand who the safest drivers are, and applies real-time coaching for those who might need it. All data gathered is stored in Diversiti’s cloud-analysis platform, enabling fleet managers to see trends in dangerous driving across their entire fleet. Armed with that knowledge, fleet managers can guide the fleet to

*Research Finds Link Between Air Pollution and Traffic Accidents*

*London School of Economics and Political Science Not Sure Yet What Component of Air Pollution Causes an Increase in Accidents*

Air pollution appears to be causing an increase in traffic accidents, according to a new study on Climate Change and the Environment at the London School of Economics and Political Science.

An analysis by researcher Lutz Sager found that small increases in the level of nitrogen dioxide in the air are correlated with a measurable rise in the number of traffic accidents in the United Kingdom.

Sager’s results, based on data for the period between 2009 and 2014, show that a rise in the average concentration of nitrogen dioxide of just one microgram per cubic meter is sufficient to increase the average number of accidents each day by two percent, with the biggest effect occurring in cities.

Sager’s analysis divided the UK into a grid of 32 areas each covering about 3,000 square miles. He calculated that in the area containing west London, which suffers from some of the highest levels of air pollution, a cut of about 30 percent in the concentration of nitrogen dioxide could
App May Play a Role in Reducing Traffic Accidents

address specific problems, like stretches of highway where speeding is usually very common.

The “heat map” on page 1 provides a sample of hard breaking events in Tampa, FL., from which it is easy to see:

- intersections where people are driving dangerously;
- locations of hard breaking events; and
- locations where the speeds are often dangerously high.

This information is potentially very useful for city and state traffic engineers doing safety analyses. The app reduces the need for expensive speed and other studies. The information can be broken down by location, time of day, and individual drivers that have the app installed on their personal smartphones.

An additional application by Diversiti is to determine where passengers board and alight on a public transportation route. Presently, this is also time-consuming and expensive.

Driversiti operates worldwide, including North America, Europe, Asia, South America, and the Middle East. Their clients have recorded millions of miles driven, including by a number of fleet companies who are paying to deploy Driversiti throughout their fleets.

For more information, contact Dan Winston, Vice President – Business, tel. (443) 435-4153, email: dan.winston@driversiti.com. Website: www.driversiti.com.

Research Finds Link Between Air Pollution and Traffic Accidents

reduce the number of road accidents every day by almost five percent.

Sager said: “Although it has already been shown that air pollution adversely affects human health and the ability to carry out mental tasks, this is the first published study that assesses the impact on road safety. The analysis identifies a causal effect of air pollution on road accidents.”

Sager commented to The Urban Transportation Monitor that “arguably, impaired visibility could be one channel through which air pollution might increase the number of accidents. Other candidates are a reduction in mental acuity or physical irritation causing distractions (burning eyes, itchy nose).” He added that in the current version of the paper, he did not home in on the precise ‘channel’ but focused exclusively on confirming that there appears to be a positive effect of air pollution on the number of accidents. He is hoping soon to be able to determine which channel might be the main cause of the increase in accidents.

For more information or to obtain a copy of the working paper ‘Estimating the effect of air pollution on road safety using atmospheric temperature inversions’, contact Bob Ward r.e.ward@lse.ac.uk.

Driversiti app screenshot of a trip speeding information (red) and locations of phone handling while driving. (Image: Courtesy of Driversiti)

A screenshot of the app. (Image: Courtesy of Driversiti)
The National Association of City Transportation Officials (NACTO) and the Global Designing Cities Initiative earlier this month released a “Global Street Design Guide” (GDSG) for designing safe and sustainable cities.

Fabrizio Prati, Program Associate at NACTO, said “the GSDG is a resource that will set a global baseline for designing streets and public spaces while redefining the role of streets in a rapidly urbanizing world.” He added “it has been developed with the input of more than 150 professionals from the public and private sectors as well as advocates from 72 cities in 42 countries; together, we refer to these experts as the Global Expert Network. The Guide leverages the experience of this global network as well as national and international publications and resources and is based on over 40 case studies from around the world.” “The Guide dedicates a chapter on the needs of each of the various streets users—pedestrian, bicyclists, transit users, motorists, freight and city services providers and people doing business in our streets—and presents 21 street typologies and 50 unique street and intersection transformations applicable in diverse contexts and levels of development, from planned settlements to informal areas.”

NACTO believes street design is “one of the single most powerful instruments available to city planners to combat traffic danger, a persistent global health crisis responsible for 1.25 million deaths annually.” NACTO added “street design is also the key to resolving larger issues of cities’ economic vitality, livability, and physical and social mobility.”

The GDSG follows NACTO’s Urban Street Design Guide, Urban Bikeway Design Guide, and Transit Street Design Guide, expanding from a North American context to address a variety of street typologies and design elements found around the world.

For more information, contact Fabrizio Prati, NACTO, at Fabrizio@nacto.org and visit www.nacto.org.
Cubic Teams Up with University of Melbourne to Deliver World’s First 'Urban Laboratory’

*Connected Multimodal Transport Test Bed to be Applied in Melbourne, Australia*

Earlier this month, Cubic Transportation Systems (CTS) and the University of Melbourne announced the signing of a Memorandum of Understanding to partner on the development of a ‘National Connected Multimodal Transport (NCMT) Test Bed,’ which will deliver the first implementation of Cubic’s ‘Surface Transport Management Solution.’

The NCMT Test Bed to be applied in Melbourne will be the world’s first ‘urban laboratory’ capable of large-scale testing and implementation of emerging technologies in complex urban environments. The testing will explore ways to relieve pressures created by increased trip-making by using data from traffic, public transportation and parking. The NCMT Test Bed will also focus on multimodal transportation systems consisting of connected vehicles, roadways, freight, city logistics, public transportation, smart stations, pedestrians and cyclists.

CTS believes that governments need to make operations more efficient, while allowing customers to connect easily with all the services and infrastructure available. “To achieve this, cities need to take advantage of the massive amounts of data currently at their fingertips and realize new opportunities to connect different systems and create a level of higher intelligence about the system as a whole,” said Tom Walker, senior vice president of CTS Asia-Pacific.

Cubic’s Surface Transport Management Solution forms the core of the NCMT Test Bed by providing an enhanced system for data usage and analysis by transportation planners. Through its cloud-based platform and multimodal integration capabilities, Cubic’s solution can connect different systems and data sets to provide planners with a holistic real-time view of travel across the entire network.

*The Urban Transportation Monitor* questioned CTS about their initiative:

Q. What does the test bed consist of? Has an agreement with the city of Melbourne been established?

A. It will be a real, live test bed. The test bed will use dedicated corridors and regions in Melbourne for testing and these will be agreed upon with the city. Cubic will provide the core transport integration engine and data hub for the project.

Q. Presently, most cities have parking apps, navigation apps that take traffic into consideration in real time and there is a significant amount of research being conducted on AVs and their impact on road capacity, etc. In addition, there are the car sharing apps, parking apps, etc. What testing will be done at the NCMT?

A. Examples of integration (apart from connected vehicles) will be things like SCATS (the traffic signal system currently deployed in Melbourne) in order to better coordinate vehicles with traffic lights; integration of Myki data (Myki is a reloadable, contactless, smartcard ticketing system used on public transport in Australia) to better understand how people move around the city and to examine how multi-modal options could be delivered i.e. give users the information they need to make informed choices.

Q. Will input be obtained from the public?

A. The public will be engaged in a controlled manner as one of the key aims is to provide travellers with better information and choices.

Q. What is the timeframe for actual application?

A. This is yet to be confirmed but the aim is to define the test bed before the end of the year and start deployment early in 2017.

Q. What are the unique components of the test bed?

A. Cubic’s Transport for the Future program is an opportunity to improve the mobility of travellers across all modes of transport in Australia’s cities, and potentially around the world. Not only that, but the Government will be able to manage ongoing demand and mobility using Cubic’s integrated transport framework as the springboard for the next generation of integrated transport management. The overall result will place Australia at the forefront of innovative transport management worldwide. It will maximize the utilisation of the existing infrastructure through the use of effective intervention features to balance demand. This will deliver improved use of the existing transport capacity as well as drive improvement in the nation’s productivity.

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National Transportation Statistics Updated

Bureau of Transportation Statistics Update 68 Tables

Earlier this month, the U.S. Department of Transportation’s Bureau of Transportation Statistics (BTS) released the updated National Transportation Statistics (NTS). The NTS is a web-only reference guide to national-level transportation data. NTS, updated quarterly, includes a wide range of national transportation information. NTS consists of more than 260 tables of national data on the transportation system, safety, the economy and energy and the environment, of which 68 were updated in this new release. The next quarterly update is scheduled for January 2017. NTS contents are available on the BTS website.

The more than 260 data tables cover elements such as the physical components, safety record, economic performance, human and natural environment, and national security of the U.S. transportation system. The document also includes data source and accuracy statements, a glossary and a list of acronyms and initialisms.

The main sections of the NTS are listed below:
Chapter 1 - The Transportation System
Chapter 2 - Transportation Safety
Chapter 3 - Transportation and Economy
Chapter 4 - Transportation, Energy, and the Environment

An Advisory Council on Transportation Statistics (ACTS) was created with the establishment of BTS in the Intermodal Surface Transportation Efficiency Act of 1991, to advise BTS on the quality, reliability, consistency, objectivity, and relevance of transportation statistics and analyses collected, supported, or disseminated by the Bureau and the Department. Members include Alicia Carriquiry, Iowa State University; Barbara Fraumeni, Muskie School of Public Service; Herman Habermann, the Committee on National Statistics; Paul Jovanis, Pennsylvania State University; David Lee, Airlines for America; Joseph Schofer, Northwestern University; and Michael Walton, University of Texas at Austin. The reappointed members are Leanna Depue, Missouri Department of Transportation; and Michael Replogle, Institute for Transportation and Development Policy.

For more information, contact Dave Smallen on (202) 366-5568, or visit http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/national_transportation_statistics/index.html. A contact email is answers@bts.gov

An Example Table from the National Transportation Statistics (Online)

<table>
<thead>
<tr>
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<td>2,978</td>
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<td>Vehicle-miles of travel (VMT) (millions)</td>
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<td>234,544</td>
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<td>Fatality rates per 100 million vehicle miles</td>
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<td>Urban, total</td>
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<td>Other arterials</td>
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<td>1.78</td>
<td>1.24</td>
<td>1.10</td>
<td>1.15</td>
</tr>
</tbody>
</table>

Cubic Teams Up

Cubic provided the following additional information:

“The project is about taking transport in Australia on a journey that will ultimately deliver a more integrated, customer-focused experience which will be the envy of countries around the world. The program outlined in this note recognises that there is no single aspect that will deliver the required step change in traveller experience in the next 10 years. It will be delivered through a combination of:
• integration of new services;
• changes in delivery approach of existing services;
• upgrading of infrastructure;
• greater use of supporting data analytics;
• use of targeted interventions and
• the provision of personalised real-time information to users.”

“It is built on the approach that all users will have a single account through which they are able to pay for all transport and associated services. A transport management platform will provide an enhanced level of multi-modal response management. Data analytics is used to identify those aspects that require the intervention of the transport management team where the responses can’t be automated. Improvement to the existing transport service provision will also contribute to the overall improvement in service delivery, driving a more balanced approach to transport mode choice.”

“To ensure adoption of new approaches to transport management, it is important that all transport modes are considered as part of a holistic approach to delivering an improved user experience. Cubic recognises that the user experience will be different for each traveller group. Each user will perceive their value differently, whether it is the reversal of currently increasing congestion, delivering shorter train journeys, providing a greater frequency of bus services, having always connected on-board services, easy payment methods or better real-time information provision. Our approach is to ensure all these aspects are addressed within this program.”

For more information, contact John MacGregor at tel. 0414 445 447, email: jmac@macpr.com.au, or visit www.cubic.com or on Twitter @CubicCorp.
**USDOT Announces Advanced Technology Transportation Grants**

Grants to be Leveraged to Bring Close to $170 Million in Public and Private Investment to Deploy Smart City Technologies

Earlier this month the U.S. Department of Transportation (DOT) announced the recipients of grants from the Advanced Transportation and Congestion Management Technologies Deployment (ATCMTD) program overseen by the Federal Highway Administration and the Mobility on Demand (MOD) Sandbox program overseen by the Federal Transit Administration (FTA). The recipients will receive $65 million in federal funding and through leveraging will increase this total to $170 million in public and private investments.

ATCMTD program’s grants are designed to help communities use technology to enhance mobility and expand access to opportunity. Projects funded by these grants will improve the efficiency of the highway system and make the most use of existing capacity for commuters, businesses, and freight shippers. These issues were highlighted in the ‘Beyond Traffic’ report, which addresses the challenges facing America’s transportation infrastructure over the next three decades, such as a rapidly growing population and increasing traffic.

The $8 million MOD Sandbox Program is part of a larger research effort at U.S. DOT that supports transit agencies and communities as they integrate new mobility tools like smart phone apps, bike- and car-sharing, and demand-responsive bus and van services. MOD projects help make transportation systems more efficient and accessible, particularly for people who lack access to a car. Through creative business models, the MOD Sandbox Program explores the potential of integrating public and private transportation choices. FTA sought projects with partnerships between transit providers, local governments, technology companies, and others that demonstrate solutions in real-world settings.

For more information, call (202) 366-4570.

*Please turn to Page 7*

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**Grantees and Projects for the Advanced Transportation and Congestion Management Technologies Deployment (ATCMTD) Program Run by the Federal Highway Administration**

<table>
<thead>
<tr>
<th>City and County of Denver, CO</th>
<th>Denver Smart City Program - Freight efficiency corridor with travel time reliability along arterials as a City service to freight fleet operations.</th>
<th>$6,000,000</th>
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</thead>
<tbody>
<tr>
<td>Los Angeles County Metropolitan Transportation Authority, CA</td>
<td>Freight Advanced Traveler Information System (FRATIS) - A large-scale deployment of the Freight Advanced Traveler Information System (FRATIS) Project using automated optimized dispatching and traffic signal-vehicle speed coordination to reduce truck congestion and fuel usage.</td>
<td>$3,000,000</td>
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<tr>
<td>City of Los Angeles, CA</td>
<td>Los Angeles DOT Implementation of Advanced Technologies to Improve Safety and Mobility within the Promise Zone Implementation of connected vehicle technologies to allow the signal system to detect red light-violating vehicles and adjust timing, and personal wireless devices to prioritize pedestrian travel and safety at intersections.</td>
<td>$3,000,000</td>
</tr>
<tr>
<td>City of Marysville, OH</td>
<td>NW 33 Smart Mobility Corridor Deployment of corridor-focused connected vehicle applications in a mixture of rural and suburban environments across multiple communities to improve access to large employment sites and economic development.</td>
<td>$5,997,500</td>
</tr>
<tr>
<td>Niagara Frontier Transportation Authority, NY</td>
<td>A Connected Region: Moving Technological Innovations Forward in the NITTEC Region Connected vehicle applications using multiple communications technologies to alert truckers of border wait times and available parking to reduce congestion in the Buffalo-Niagara area.</td>
<td>$7,813,256</td>
</tr>
<tr>
<td>City of Pittsburgh, PA</td>
<td>SmartPGH Deploy “Smart Spine” corridors that layer environmental, communications, energy, and transportation infrastructure technologies to improve connections between isolated neighborhoods &amp; major centers of employment, education, and healthcare.</td>
<td>$10,899,318</td>
</tr>
<tr>
<td>City and County of San Francisco, CA</td>
<td>San Francisco Smart City Connected dynamic tolling for the Bay Bridge combined with incentive efforts for HOV and transit use, such as dynamic carpool/rideshare pick-up curbs and connected vehicle transit priority to reduce congestion.</td>
<td>$10,990,750</td>
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<tr>
<td>Texas Department of Transportation (Houston, TX)</td>
<td>ConnectSmart: Connecting TSMO and Active Demand Management Expands person-trip capacity by seamlessly providing a broad range of innovative mobility options to commuters leveraging technologies such as shared-use ebikes, social carpooling including ridesharing services, and unified payment across transit and other shared-use services.</td>
<td>$8,939,052</td>
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### USDOT Announces Advanced Technology Transportation Grants

<table>
<thead>
<tr>
<th>State</th>
<th>Project Sponsor</th>
<th>Description</th>
<th>Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>AZ</td>
<td>Regional Transportation Authority of Pima County</td>
<td>The Regional Transportation Authority of Pima County will receive funding for the Adaptive Mobility with Reliability and Efficiency project, integrating fixed route, subscription based ride-sharing and social carpooling services into an existing data platform to provide affordable, convenient and flexible service. The project augments transit by addressing first mile/last mile issues and congestion mitigation by incorporating shared ride-on-demand services, integrated open payment systems and advanced traveler information systems.</td>
<td>$669,158</td>
</tr>
<tr>
<td>AZ</td>
<td>Valley Metro Rail, Inc.</td>
<td>Valley Metro Rail of Phoenix will receive funding for a smart phone mobility platform that integrates mobile ticketing and multimodal trip planning. The network will include a range of mobility providers, including ride-hailing, bike sharing, and car-sharing companies, allowing all levels of income, age and people with disabilities to have access to an integrated, connected multimodal transportation system.</td>
<td>$1,001,000</td>
</tr>
<tr>
<td>CA</td>
<td>City of Palo Alto</td>
<td>The City of Palo Alto will receive funding for the Bay Area Fair Value Commuting Demonstration project, which aims to reduce single-occupant vehicle driving from 75% to 50% in the Bay Area. The project includes commuter trip reduction software, a mobility aggregation multimodal trip planning app, workplace parking rebates and analytics to compare commutes.</td>
<td>$1,085,000</td>
</tr>
<tr>
<td>CA (&amp; WA)</td>
<td>Los Angeles County Metropolitan Transportation Authority</td>
<td>The Los Angeles County Metropolitan Transportation Authority will receive funding for a two-region mobility on demand partnership with the car-sharing company, Lyft, in Los Angeles and Seattle. The project will explore the viability of first/last mile solutions for trips originating and ending at select transit stops. Customers can use the Lyft app or call a dispatcher phone number, providing equity to lower income individuals.</td>
<td>$1,350,000</td>
</tr>
<tr>
<td>CA</td>
<td>San Francisco Bay Area Rapid Transit</td>
<td>San Francisco Bay Area Rapid Transit (BART) will receive funding for an integrated carpool to transit program that will help users find carpool matches as well as match them to their transit destinations. The project will provide a seamless way to reserve and pay for in-demand parking spaces at BART stations, allow preferential parking for carpoolers while increasing transit ridership by improving access to BART stations. The software will include ways to identify drivers with wheelchair-accessible vehicles.</td>
<td>$358,000</td>
</tr>
<tr>
<td>FL</td>
<td>Pinellas Suncoast Transit Authority</td>
<td>The Pinellas Suncoast Transit Authority will receive funding for the Paratransit Mobility on Demand Demonstration, a set of partnerships with a taxi company, a paratransit service and a car-sharing company to develop a model to provide more cost-effective on-demand door-to-door paratransit service. The project will feature a central dispatch software that provides users with a selection of transportation service providers based on an estimated time of pickup, available payment types, and physical limitations.</td>
<td>$500,000</td>
</tr>
<tr>
<td>IL</td>
<td>Chicago Transit Authority</td>
<td>Chicago Transit Authority (CTA) will receive funding for a project that will incorporate the local bike sharing company, Divvy, a 580 station bike share service, into CTA's existing transit trip planning app so users can identify the availability of bikes or docking stations near their transit stops, and pay for bike rentals.</td>
<td>$400,000</td>
</tr>
<tr>
<td>OR</td>
<td>Tri-County Metropolitan Transportation District</td>
<td>The Tri-County Metropolitan Transportation District of Oregon (TriMet) will receive funding for an Open Trip Planner Share Use Mobility project that will create a platform integrating transit and shared-use mobility options. TriMet will build on its existing trip planning app to incorporate shared use mobility options and more sophisticated functionality and interfaces, including data sharing for shared-use mobility providers. By integrating data, the project will allow users to plan trips that address first/last mile issues while traveling by transit.</td>
<td>$678,000</td>
</tr>
<tr>
<td>TX</td>
<td>Dallas Area Rapid Transit</td>
<td>Dallas Area Rapid Transit (DART) will receive funding for a project that integrates ride-sharing services into its GoPass ticketing app to solve first and last mile issues. This project will combine traveler applications to create an integrated, multimodal application that leverages ride-sharing services. The project will improve ease of access to DART stations, particularly in non-walkable areas not well served by transit.</td>
<td>$1,204,000</td>
</tr>
<tr>
<td>VT</td>
<td>Vermont Agency of Transportation</td>
<td>The Vermont Agency of Transportation will receive funding for a statewide transit trip planner that will enable flex-route, hail-a-ride, and other non-fixed-route services to be incorporated in mobility apps. The online trip planner for both fixed and flexible transit services particularly benefits non-traditional rural transit system users, allowing universal access to transit information, including to people with disabilities.</td>
<td>$480,000</td>
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Canada Moving Ahead With Testing Wireless Connected-Vehicle Technology

ACTIVE-AURORA Project Consists of Four Test-Beds and Two Laboratory Test Environments

ACTIVE-AURORA, a partnership between the Government of Canada, several public and private partners including the Government of Alberta, City of Edmonton, University of Alberta, University of British Columbia, Natural Sciences and Engineering Research Council of Canada, and the Canada Foundation for Innovation, is entering a phase of testing connected-vehicle applications last month. The “ACTIVE” stands for the Alberta Co-operative Transportation Infrastructure and Vehicular Environment and the “AURORA” stands for Automotive Test-bed for Reconfigurable and Optimized Radio Access.

The Government of Canada is investing $1.3 million in this project from the Asia-Pacific Gateway and Corridor Transportation Infrastructure Fund. Several of the public and private partners listed above are also providing funding and in-kind support, totaling $2.36 million.

The ACTIVE-AURORA project consists of four test-beds and two laboratory test environments, with ACTIVE representing the Edmonton component and AURORA representing the Vancouver component.

Three on-road ACTIVE test-beds are located in Edmonton. Research on these test-beds will primarily evaluate how connected-vehicle technology can be applied to transportation safety, traffic demand management, increase peak capacity and smooth traffic flow on busy roads.

One on-road AURORA test-bed will develop, test, demonstrate and commercialize innovations in Vancouver, with particular emphasis on wireless communications for freight security and efficiency.

For more information, contact Tony Z. Qiu, University of Alberta, email: tony.qiu@ualberta.ca
Transportation Tort Liability: Case in Review

Connecticut Appellate Court Provides Clarity on Issue of 'Reasonableness'

Plaintiff was severely injured in December 2011 when, at approximately 6:38 a.m., his truck skidded on untreated black ice in the northbound lanes of Interstate 95 on the Gold Star Memorial Bridge, CN. Four accidents, reported by the state police to the Department of Transportation at 5:40, 5:49, 5:51, and 6:01 a.m. respectively, occurred on the bridge before plaintiff’s accident. The Court of Appeals would later describe the situation as one of “extreme danger posed to travelers by invisible black ice completely coating a five lane bridge on a major state thoroughfare at the start of the morning commute.”

Plaintiff brought suit against the Commissioner for Transportation for breach of his statutory duty to keep the bridge in a reasonably safe condition by failing to take adequate measures in response to the notice he had received of its dangerous condition, either by treating its icy surface, placing or using warning signs in the area to warn travelers of the dangerous condition, or closing the bridge entirely until the dangerous condition could be remedied.

In 2012 the trial court initially granted defendant’s motion for summary judgement on the ground that plaintiff’s written specification of the location of the accident described an area so large that it failed to satisfy the requirements of the statute, or enable the Department of Transportation to “intelligently investigate” the accident. The Gold Star Memorial Bridge is 5,931 feet long and has approximately 500,000 square feet of deck area; plaintiff’s notice merely stated his accident occurred on the northbound lane of the bridge “between New London and Groton.” Defendant moved for reconsideration, which the court denied.

In 2014 defendant again moved for summary judgment on the grounds that he did not breach his duty, because (1) he lacked actual notice of the specific ice patch that caused the accident; (2) even if he had constructive notice of that ice patch, he lacked sufficient time after receiving notice to remediate that ice patch before the plaintiff’s accident occurred; (3) plaintiff’s notice of intent to sue failed to satisfy the requirements of the statute; and (4) plaintiff could not prove that the defendant’s breach, if any, was the sole proximate cause of his accident and resulting injuries.

In May 2015 the trial court granted defendant’s motion, ruling that the defendant was entitled to judgment as a matter of law, arguing that it could not conclude defendant had actual notice of the black ice condition that caused plaintiff’s accident before the report of the accident, and that defendant’s response time was reasonable. Plaintiff appealed this ruling.

The Court of Appeals noted that plaintiff questioned the reasonableness, as a matter of law, of defendant’s response to the notice he received of the black ice. It agreed with plaintiff that the determination of reasonableness is a multifactorial action that must be made by the trier of fact, based on the specific facts of the specific case at bar.

The Court first investigated the reasonableness of defendant’s response, and noted the following:

In over 100 years of the defective highway statute, the courts had not laid down a “bright line rule” of what constitutes a reasonable response time, as this is a fact-specific determination;

All that the law requires of municipalities is that the efforts and measures employed to ensure streets are maintained in a reasonably safe condition are themselves reasonable under the specific circumstances;

The circumstantial elements of such a decision include the location, extent and use made of the street, the practicability and efficiency of possible remedial measures, the size of the emergency, the cost of possible alternatives, and the physical resources available to the municipality to deal with it.

In the case at bar, with regard to whether and when defendant received actual notice of the condition, it noted that defendant routinely relied upon the state police to respond to and report highway defects on state roads and bridges. For that reason, the Supreme Court has held that actual notice to the state police of a highway defect constitutes actual notice to the defendant. Therefore, the Court found there was a material issue of fact whether the notice to the state police of the accident at 5:40 a.m., called in to the Department at 5:49 a.m., was when defendant first received actual notice of the condition. Further, it found that the reasonableness of the Department’s decision to follow its standard protocol was for a trier of fact to determine. It noted that standard response to off-hour calls for service was to send a two-man work crew to salt the bridge. The crew leader who was called out lived 30- to 35-minutes away from the garage. As a result, it took him over an hour to get to and open the garage, and to prepare, load and

Please turn to Page 10
Transportation Tort Liability

drive the salt truck to the bridge. By the time the work crew arrived, plaintiff’s accident already had occurred. State police, who had been on the bridge since shortly after the first accident at 5:40 a.m., had also closed the bridge. According to defendant, it had activated an electronic warning sign from at least 6:23 a.m., but sworn testimony from two witnesses, including the crew leader, indicated that they had not seen it at about that time.

On the issue of whether defendant responded unreasonably in following its standard procedures, it found a genuine issue of material fact whether deviating from this procedure would be required to ensure travelers would not be injured by an especially dangerous highway defect. Related to this was whether defendant acted unreasonably by following the standard procedure to call out a crew, and whether it had not made adequate use of available temporary remedies, such as warning signs or complete closure of the bridge.

Further issues of material fact to be determined by the trier of fact were whether the state police responded unreasonably to the icy conditions on the bridge by failing to close the road before the plaintiff’s accident, and whether the conduct of the state police provided a basis for finding the defendant liable.

Traffic-Video-Analysis Technology Based on Image-Recognition and Machine-Learning Developed

Last month, Fujitsu Laboratories Ltd. and Fujitsu Research and Development Center Co., Ltd. announced the joint development of a technology that utilizes image-processing and machine-learning to analyze surveillance camera images of traffic, with high accuracy and in real time, to recognize traffic conditions such as congestion and accidents, as well as violations. The technology achieves high-precision traffic-video analysis by combining two technologies. The first is a technology that analyzes the images from surveillance cameras installed along highways and streets, automatically grouping characteristics that can lead to recognition errors, such as changes in lighting and environmental factors including night and fog, and images from cameras that have been similarly positioned. This leads to efficient machine-learning, increasing recognition accuracy. The second is a technology that analyzes moving objects, such as vehicles and people, and efficiently identifies complex incidents such as accidents, while minimizing computational demands.

It was found that 11 types of incidents of interest, such as traffic accidents and violations, were recognized with accuracy levels of 90-95%. Even when used with existing cameras that do not have advanced image-correction features, this technology can be used to deliver a highly accurate, low-cost monitoring system that can automatically assess traffic conditions, apply traffic-flow controls and analysis to reduce congestion, and enable quick action be taken in response to accidents and traffic violations.

When monitoring surveillance cameras installed over a large area, it is important to quickly and correctly extract the information needed from a huge volume of imagery, and convey that to the relevant people. The issue with traffic-monitoring technologies that use conventional image-recognition is that they are highly susceptible to the influence of a variety of environmental factors such as light sources, including headlights, sunlight, and shadows. As a result, there are limits to how much recognition accuracy could be improved when using existing cameras for analysis using video recognition. This is because it is difficult to adjust the cameras, their position, and direction in accordance with constantly changing environmental variations. In addition, it is also difficult to efficiently and accurately recognize such varied and complex incidents as traffic accidents and violations. Fujitsu Laboratories and Fujitsu Research and Development Center’s technology tolerates changes in the surrounding environment, including changes in light, time of day, and fog, and other technologies for efficiently identifying complex incidents, such as traffic accidents.

For more information, contact Fujitsu at defogging@cn.fujitsu.com and website:
This Month’s Survey Results (Survey 1)

Essential Transportation Publications

Earlier this month the *The Urban Transportation Monitor* conducted a survey among transportation professionals to obtain their opinions on and information about what are considered to be the most essential transportation publications. Questionnaires were sent by e-mail to a random sample of traffic engineers, transportation planners and transit professionals. Altogether 51 completed surveys were obtained. Questionnaire recipients were asked to list what they believe are essential publications (reference/manual/guide/book/report) that every transportation professional should have access to. They were also asked to provide a reason for listing a particular publication as essential. The results of the survey are published here.

Transit, Pedestrian and Bicycle Publications

- For designers in an urban environment, the AASHTO green book can be difficult to use due to the lower speed environment. Design guides from NACTO assist the designer to determine more context sensitive solutions where multi-modal goals are the norm.
- Good information for bike lane design in urban areas.
- Provides state of practice guidance for incorporating the bicycle mode into the transportation network.

- It answers any question a public transit planner may have.
- Comprehensive explanatory and criteria manual for transit facilities planning and design.

**Separated Bike Lane Planning and Design Guide, FHWA, 2015**
- This is a good guide to the use and design of protect bike facilities.

**Separated Bike Lane Planning & Design Guide, Massachusetts Department of Transportation, 2015**
- Presents considerations and strategies for the development of separated bike lanes. The Guide provides a framework for determining when separated bike lanes are appropriate and feasible. It presents design guidance for separation strategies, bike lane configuration, and considerations for transit stops, loading zones, utilities, drainage, parking and landscaping.

**Building Type Basics for Transit Facilities, by Kenneth W. Griffin, John Wiley & Son, 2004**
- Valuable reference overview of basic transit facility requirements and recommendations.

**Designing Walkable Urban Thoroughfares: A Context Sensitive Approach, multiple authors, Institute of Transportation Engineers and the Congress for the New Urbanism, 2010**
- Helped turn the corner on thoroughfare design from treating streets and roads as utilities to treating them as vital elements of community life.

**Pedestrian Planning and Design, John J. Fruin, Ph.D., 1987, second edition**
- Detailed explanation of pedestrian planning criteria.

**Human Transit: How clearer thinking about public transit can enrich our communities and our lives, by Jarrett Walker, Island Press, 2011**
- Human Transit provides the most articulate framework I’ve read for understanding the trade-offs in making transit policy decisions and in efforts to make transit investments more effective.

- There is little guidance in this area, and this is a valuable resource.

**Economics of Public Transport, by C.A. Nash, Longman, 1982**
- Provides an excellent economic framework for analyzing and understanding management decisions and strategy in the operation of public transit.
Essential Transportation Publications (continued)

Traffic Engineering and Highway Design Publications

- Basic text on street design.
- Essential guide to the design of the public rights of way.
- It provides consistent guidance to ensure motorist safety and expectations. It provides design criteria that promotes safe driving by design, not regulation.
- Thorough text on geometric design.
- Fundamental design reference.
- It’s an excellent resource for road design, speed, sight distance, vehicle turning paths, etc.
- This is the compendium of transportation geometric design, and design standards, continuous for years.
- Comprehensive design guide for streets and highways.
- Guidelines for road design.
- This publication, commonly referred to as the “Green Book,” contains the current design research and practices for highway and street geometric design.
- It is the Standards Reference of roadway design.

*Manual of Uniform Traffic Control Devices, Federal Highway Administration, 2009*
- One-stop shop for everything you need but the website is better because you can search for specific text.
- Essential tool to guide designers for consistent communication to the public regarding use of the public rights of way.
- The source for all traffic control guidelines.
- Provides standards, recommendations, and guidelines for signs, striping, and signals.
- National standard for traffic control devices in the USA.
- Regular review of streets.
- The MUTCD is a great tool in the engineering and transportation departments. It provides exact information of what a road needs and should have to be functional.

- Essential for any evaluation involving new or changes in existing land use.
- Needed for every traffic impact study.
- Invaluable resource of trip generation rates for a large number of land uses.
- It is essential for estimating trips/traffic for site development and traffic impact analysis.
- To estimate the transportation impact for undeveloped parcels (future land uses).
- Provides some scale of travel demand relative to land development[s] planned and existing.
- A universally accepted compendium of trip generation studies to cover most trip generation concerns, that includes qualifiers on when not to use the data and how to prepare studies to be added to the data base for future editions.

*Highway Capacity Manual, Transportation Research Board, 2010*
- Basis for determining capacity and level of service for all modes.
- It provides the technical basis for most of the engineering analysis I do.
- It is the basis for all traffic engineering decisions - how does this impact the capacity?
- This manual codifies the protocol of traffic operations and the dynamics of traffic densities on streets. It provides guidance in the planning of streets with and without traffic control devices, pedestrian movement and non-motorized modes of traffic.
- The standard for intersection analysis.

- Excellent resource.
- Trusted publisher; breadth of scope; topics covered.
- A summary of the most important aspects of Traffic Engineering.
- State of the Practice for traffic engineering and traffic engineering studies.
- Guidance on doing traffic engineering studies.
Essential Transportation Publications (continued)

- Provides instructions and forms on how to perform traffic engineering surveys.
- Lays out uniform ways to conduct “Engineering Studies” referenced in the law regarding traffic controls (the MUTCD).
- It is a valuable desk reference for any traffic engineer who is either starting out or has a varied practice requiring knowledge of a variety of study types.

- Because the MUTCD was published in 2009 and outside the 3-year time frame. This manual accompanies the MUTCD, which provides important standards and guidelines for uniform application of traffic control devices.
- Facilitates MUTCD implementation.
- Provides guidance on traffic signals design and operation.

**Driveway Information Guide (Florida DOT), Florida Department of Transportation, Systems Planning Office, 2008**
- This is the one publication which contains information, in plain English, about best design practices as well as specific Florida standards for the construction and placement of driveways serving the public.
- This document explains in relatively layman’s terms the concepts behind decisions for driveway design and placement under different conditions. This handbook helps the practitioner to design driveways to handle different kinds of traffic. It also contains information on driveway placement and design for transit operators and pedestrians.

**Quality/Level of Service Handbook, Florida Department of Transportation, Systems Planning Office, 2013**
- It is one of the few publications explaining the concepts of LOS for planning level analysis. It is accompanied by a suite of software programs (all free) which will help you get a quick first shot estimate of LOS for freeways, streets, and rural roadways with minimum effort.

**Highway Safety Manual, American Association of State Highway Transportation Officials, 2010**
- Standard reference for roadway safety design.

**Urban Street Design Guide, National Association of City Transportation Officials, 2016**
- Most relevant guidance for building and retrofitting city streets to become more appropriate for all users.
- First comprehensive guidance for appropriately designing for various types of transit vehicles within urban street conditions.
- The first street design guidance appropriate for urban conditions found in larger cities.
- Good information for urban street design.

- This book talks about the Traffic Calming Devices in Practice. For me this book gives a lot of insight about the use of the devices and examples about where they are located and functionality.

- This document explains in plain English the concepts behind decisions for median opening design and placement. Uses basic traffic engineering skills put together for decision-making. Uses the concept of deceleration, queuing, turning radius, traffic speed to help determine appropriate median opening design and locations. It also goes into the importance of designing for U-turns and the impacts on pedestrians.

- Practical advice on how to do a good job and how to review a study done by somebody else. Contains checklists and advice on traffic data collection; rules of thumb; information on the use of trip generation and surrounding traffic growth.

**Urban Street Geometric Design Handbook Hardcover, Institute of Transportation Engineers, 2008**
- Good information pertaining to urban and complete street design

**IMSA Journal, IMSA**
- Keeps Traffic professionals up to date with Technology

**Traffic Analysis Handbook, Florida Department of Transportation Systems Planning Office, 2014**
- This handbook answers many of the questions regarding what types of models to use for different types of transportation analysis studies. It covers studies all the way from small sites to large area studies. Covers large-scale regional transportation models as well as some of the newer micro simulation models. It gives practical advice on their use as well as ways to know if your output is reasonable.
Essential Transportation Publications

Achieving Multimodal Networks: Applying Design Flexibility & Reducing Conflicts, FHWA, 2016
- A review of current design flexibility and methods to reduce conflict between motorized and non-motorized modes of travel, with case studies, and design guide references to support that flexibility.

- Provides parking generation data that would otherwise be unavailable to users.

Roadside Design Guide, AASHTO, 3rd Edition
- Essential guide for roadside barricade and shoulder design.

Transportation Planning and Miscellaneous Publications

The Art of the Longview, Peter Schwartz, Currency Doubleday, 1996
- Provides a resource for planners to use in structuring their approach to engaging managers, decision-makers, and communities in thinking about the long view. It outlines the process for using scenario planning as a process for having effective strategic conversations.

Start Up City, Gabe Klein and David Vega-Barachowitz, Island Press, 2015
- Inspiring stories of how to get things done.

Crucial Conversations, Patterson, Grenny, McMillan, Switzer, McGraw Hill, 2002
- Outlines an essential approach and tools to use in engaging decision-makers and the public in making progress on the often divisive issues related to the inevitable outcome of planning processes - change.

TMIP, various authors, US Department of Transportation, weekly (go to https://www.fhwa.dot.gov/planning_Hlt466965553_Hlt466965554/BM_1_BM_2_tmip/community/list_serv.cfm for more information)
- Current research and findings.

ITE Journal, Institute of Transportation Engineers, monthly
- While the content is not critical to the profession, it is often worth reviewing and more importantly it is an important resource to be aware of what is happening in the field of transportation engineering and planning. It is a good barometer journal.
- Wide variety of transportation-related subjects covered. Many articles useful, some just interesting.
- Constant Technical Updates.

- Can be used to determine shared parking reductions.

Traffic: Why We Drive the Way We Do (and What It Says About Us), Tom Vanderbilt, Vintage Books, 2008
- Understanding the psychology of drivers. All the design knowledge in the world is useless if you do not understand your user.

Transportation Research Parts A-F, Elsevier, 2016
- (Speaking as the publisher) taking into account both quantity and quality, this journal family is the single most important repository of transportation research.

TRB Journals and Publications, various contributors, Transportation Research Board, 2016
- Generically, every transportation professional needs to keep up-to-date with the materials produced by the TRB.

Urban Transportation Monitor, Lawley Publications, serial
- International coverage; survey results.

- Volpe - Advance Transportation Technologies - the field of transportation will be changing rapidly. It is critical that transportation professionals be aware of the potential change, and Volpe is a great source to review the most credible future changes/areas-of-interest rise to the top.
This Month’s Survey Results (Survey 2)

Traffic Fatalities - Your Opinion

The Urban Transportation Monitor conducted a survey among transportation professionals to obtain their opinion about traffic fatalities in the U.S. Emails requesting participation in the survey were sent to 1,200 individuals. The emails were sent mostly to traffic engineers. A total of 89 replies were received. The results of the survey are published here. The questions for the survey were derived from the Transportation Research Board publication: Achieving Traffic Safety Goals in the United States. Lessons from Other Nations. Special Report 300.

Please note - the following statement appeared at the start of the questionnaire:

Although there has been a steady decrease of traffic fatalities in the U.S. over the past number of years (excluding the past two years), it does not compare well with other industrialized countries. In fact, if the U.S. had achieved the same average reduction in traffic fatalities as four other industrialized nations achieved over the past 13 years, presently it would have over 10,000 fewer fatalities per year. The survey focuses on this issue.

In most industrialized countries in Europe, the blood-alcohol content (BAC) threshold is 0.5 g/L, while in the U.S. the limit is much higher at 0.8 g/L. Do you believe the BAC should be lowered to 0.5 g/L or close to this level?

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The following comments associated with this question were received from respondents:

- I lived in Australia when the limit was lowered to 0.5. It has been very well accepted by the population, and acknowledged as having a positive effect on public health. My children all became of driving and drinking age with an expectation that there should always be a designated driver whenever a group is out socially and alcohol is present. 0.5 is no longer a topic of discussion, but universally accepted as appropriate.
- BAC is not the only factor behind fatalities. Driver distraction needs to be considered as well as seat belt use. I reviewed every fatality in my District of three counties and 3 interstates and there are a lot more issues associated with this problem.
- The problem is not the limit, but the fact that there is no real punishment in this country for offenders. Making the penalties severe would do more. Take away the car on first offense, make fines extremely high like $10,000 for first offense. Similar to sex offenders, put them on a list of offenders and force them to remain enrolled in AA programs for life.
- I believe it should be lower; this would require a major cultural shift in Wisconsin, where it seems drinking and driving is still acceptable at some levels
- BAC only matters if the suspected driver is stopped by law enforcement officers. However, anti-DUI PSAs and programs, e.g., MADD, are effective before a driver enters the vehicle.
- Show me statistics that indicate the majority of crashes that involved alcohol as a primary factor where a driver was between 0.5 and 0.8.
- I don't know how effective a lower threshold would be on reducing impaired driving crashes and fatalities. Enforce more our current threshold laws.
- Would need to see studies that show this makes a difference. How many accidents occur when a person is between these levels?
- I don't believe it would stop the problem drinkers/drivers from drinking and driving. It would just cost society more.
- We have trouble enforcing the laws that we have and recidivism for drunk drivers is huge. I can't see that changing the BAC will have any kind of positive results until we can tackle address the drunk driving culture in our country. We also should create a more robust and effective treatment system for alcoholics. Most drunk drivers are not "bad people" or "criminals." Fining them will not solve the problem.
- Don't just center on DUI look at DWI, many other intoxicants/drugs are abused in addition to alcohol. So develop policies for limits for all.
- I'm not sure what the correct number is, but based on a study I participated in it should be lower than .08.
- Not unless public transportation is made available to the extent of Europe. Self-driving vehicles will mitigate this issue.
- Subjective criteria should be considered. A person with moderate tolerance could be unaffected at 0.5 or even 1.5. A person with low tolerance would be impaired below 0.5. Is the next step to have zero tolerance?
Traffic Fatalities - Your Opinion (continued)

It is believed that widespread implementation of sustained, high-frequency sobriety testing programs in the United States at sobriety checkpoints could be expected to save 1,500 to 3,000 lives annually. Are you in favor of such a measure?

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The following comments associated with this question were received from respondents:

- Free driver education programs and PSAs would be more effective.
- "It is believed...." By whom? Checkpoints are a waste of resources. Show me the economics of the cost of checkpoints vs. the value of the potential lives saved by those caught in the dragnet.
- Again, based on my Australian experience, police regularly set up random breath test (RBT) points throughout the large cities on a routine basis, including Sunday mornings (when heavier drinkers may think they are safe to drive home but are still inebriated). The checkpoints are very efficient. The initial screening breath test is much quicker than the typical US sobriety checks, and they are well accepted by the community.
- "It is believed"? If this was true, I agree, but I doubt this is attainable and at what cost?
- It could exacerbate existing problem of mass incarceration.
- In our rural area the MSP hold Check Points funded through various grants (that are limited). Hundreds of vehicles pass through with many locations yielding "0" citations. At best perhaps one in several checkpoints.
- I think there is little political will to provide funding to deploy sobriety checkpoints in the US. As a result a lot of effort could be put into passing legislation to do this with no success.
- I believe technology in the vehicle with breath analyzers disabling vehicles is what is needed. There are too many places where sobriety checkpoints are missed/avoided and the resources needed by law enforcement is too great to be perpetual to run enough checkpoints to the frequency needed to mitigate the problem.
- Yes, so long as they are random and are focused in data driven locations.
- Only if the penalties are increased at the same time. Again, there is no real punishment in this country. How many 5, 6, 7+ time offenders are there out there.

In many industrialized countries in Europe, speed management initiatives are of high visibility (through publicity and endorsement of elected officials), are long term (sustained for periods of years), target major portions of the road system, and use intensive enforcement (e.g., automated enforcement and high penalties). After several years of application, the speed management initiatives can reduce fatalities by 15 to 20 percent. Are you in favor of such measures?

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The following comments associated with this question were received from respondents:

- Automated enforcement could be acceptable if the speed limits in question were actually established based on engineering principles rather than for revenue enhancement or in response to political pressure. Red light photo enforcement should only be permitted if the signal timing is correct (yellow change interval and all red clearance) and the signals are designed and operated correctly. This includes the correct placement of vehicle detectors for the speeds on the approaches to the signals. It would also include checking signal coordination to make sure that no "gotchas" are created.
- The issue is improperly set speed limits that are inconsistent with the roadway geometrics and the 85th percentile speed that breeds driver disrespect.
- Standard enforcement is preferrable than intensive enforcement because the public generally resents intensive enforcement.
- Automated speed enforcement is only effective in creating a large pool of cash for politicians to spend with no restrictions. Nothing beneficial to the public ever results.
- "After several years of application...." How long before the benefits are seen? Wouldn't those technologies and energy be better spent growing the V2I infrastructure to take driver behavior out of the safety equation?
- Intensive enforcement is important, but I'm not a fan of automated enforcement. In Louisiana photos of drivers must be blurred causing legal issues with proof of who is driving. Also prone to abuse.
- However, "can reduce 15-20%"? Again, I don't believe this number is attainable but the premise of focused traffic safety initiatives is a good idea. This assumes that speed limits are properly set when looking at intensive enforcement, which is often not the case.
Traffic Fatalities - Your Opinion (continued)

Laws in nearly every industrialized country in Europe require motorcyclists to wear helmets. Thirty U.S. states lack such laws. If all states in the U.S. require helmet use, an estimated 450 motorcycle deaths will be prevented. Do you believe all states should require helmet use?

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The following comments associated with this question were received from respondents

- Also address tiered motorcycle licenses that Europe uses.
- Motorcyclists wishing not to wear a helmet need to be held financially accountable. Aka no taxpayer health care support.
- Helmet use is effective after a crash, whereas, highly visible clothing and loud muffler noise can be more effective in preventing fatalities.
- Motorcyclist not wearing helmets are people who know the risks and flaunt them as part of their personality. Too authoritarian for the government to play nanny to these people. They don’t want the help. Only aggravating them.
- I also believe that if you choose to ride without a helmet, your insurance company is not required to cover you if you are in an accident that leads to head injury or death.
- Riders who claim that it infringes their individual rights to be forced to wear a helmet fail to acknowledge the additional cost they are imposing on the community if they are injured or killed, when it could be avoided by using a helmet.
- Yes, but allow motorcyclist with a large enough policy to cover the possibility of their injury to ride without a helmet.
- Individual choice to be stupid. They already suffer a self-inflicted high penalty for not wearing one when they are in a crash.
- Personal choice. They are idiots if they don’t wear them though!

Do you believe the U.S. should have a more rigorous process to obtain and maintain a driver's license?

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The following comments associated with this question were received from respondents

- We need tiered licenses. Even for 4-wheel vehicles, you should start with low-power, manual vehicles.
- Yes, absolutely.
- Each time a driver's license is renewed, the applicant should be required to read and understand any traffic laws that were changed or added since their last renewal.
- Driver's testing should be more frequent, especially at young and older ages. Also, driver's licenses could be renewed with an annual open book test review of new/changed laws, changing vehicle technology, and changing infrastructure (roundabouts, new signs, etc.).
- I think the initial training and licensing is satisfactory. But countries that have a graduated system based on experience (e.g., provisional license with speed and passenger limits during the first one, two or three years) are probably reducing the number of crashes, injuries and fatalities among inexperienced drivers.
- In Maryland I am OK with the process. You can't teach experience so "rigorous" needs to be defined. I think retesting or evaluation should be tied to certain driving errors and not just when you exceed a point value.
- The US should have a more rigorous process to maintain a driver's license, especially at the younger and higher ages where there are issues. The lack of public transportation makes it difficult to change the process for obtaining a license.
- Those that are repeat offenders should not be allowed to have one. Make them use public transit or find other means to get around.
- In Wisconsin the time between renewals is 8 years. This seems way too infrequent. Many changes can happen to a person's mental and physical capacity in that span of time that could change their ability to safely use a motor vehicle.
- Should have periodic testing to maintain license and to check to see if drivers know new laws.
Traffic Fatalities - Your Opinion (continued)

Do you believe the level of traffic safety expertise at local jurisdictions are sufficient to apply the most cost-effective traffic engineering measures to reduce traffic fatalities?

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The following comments associated with this question were received from respondents

- Not all local jurisdiction care or have access to the latest traffic safety initiatives, standards and state of practices. Often local elected officials do not even realize the importance of trained traffic professionals and the associated funding needs.
- Locals have to balance mobility with safety and despite people dying in greater numbers, the call hasn’t come for greater safety measures; especially to reduce speeds.
- If the question asked about ‘funding’ instead of ‘experience,’ I would have answered an unequivocal ‘No,’ but I’m unsure with respect to expertise—I know within my organization, safety is of utmost concern and as a result, we try to stay on top of the most cost-effective measures.
- In some states, the local governments of very small towns are responsible for designing, operating and maintaining traffic signals on state highways.
- Cities are no longer using technical data properly. The City of Seattle just arbitrarily lowered speed limits even though their own study showed it was not an effective approach. They ignored the data.
- At the rural county level, one is fortunate if highway personnel have high school diplomas and sufficient funds.
- I do not want more federal rules.
- Yes, but can always be improved. And the level of funding to build transportation to a much safer and forgiving level should be increased.
- Engineering may not be the solution to traffic fatalities caused by human error or recklessness.
- In Maryland I do. If local governments do not have the traffic expertise then the State provides limited assistance. We have done this many, many times.
- Many small communities rely on consultants who provide that expertise.
- There are diverging paths for the future of conventional traffic engineering skills. The paths will shift into management by policy of autonomous vehicle technology and managing the levels of control that change for the driver and location of operation (countryside versus and connected city).
- Utilize state and federal programs to roll out programs.
- Probably not too bad though; overall do a good job for what can be controlled. Human error will always occur.
- The amount of expertise is almost enough, the tools are almost fully refined, and the funding is almost adequate.
- Of course not. Rewrite the question to “Do you believe the level of traffic safety expertise at many local jurisdictions are sufficient to apply cost-effective traffic engineering measures to reduce traffic fatalities?” I could answer yes.
- The safety knowledge might be sufficient but there might not be political backbone to support and implement initiatives.
- Most townships, villages, small cities and even most counties have very limited expertise in traffic engineering safety countermeasure. They typically need to hire consultants for this type of analysis and design.
- In MN, I believe this is true. It is the political pressure that often stops good safety projects.
- This question is too broad. Yes, for some local jurisdictions, no for others. Some states have programs to assist small local jurisdictions in safety planning which could mitigate a lot of those problems with expertise. Also, lots of states and locals have the expertise to know what kind of measures are cost effective but can’t apply them because of funding limitations or political roadblocks.
Traffic Fatalities - Your Opinion (continued)

Any further comments?

- MUTCD should be uniform. Local variations are too great and create unsafe conditions for travelling public.
- Funding for improvements is necessary and a shift to re-allocate capacity increasing projects for safety and maintenance.
- Education about proven safety engineering countermeasures by local agencies is a particularly acute problem in the desire to reduce roadway fatalities. ITE is working to solve this by making information on these countermeasures more accessible through its Vision Zero Task Force, and the associated Vision Zero Toolbox to launch in late 2016/early 2017.
- Engineering, Enforcement & Education. Red light camera should be a useful tool with rigorous enforcement with the exception of “turning right on red” unless prohibited by an installed sign “No Turn on Red.”
- Although I’m sure there are dissenting opinions on the questions and their measures for improving safety, even if everyone could agree that they would have a tangible effect on saving lives, their implementation would still have to overcome funding constraints and political pressures.
- Some states still have lower speed limits for trucks on rural freeways. On those roadways, each truck is effectively a rolling lane closure. Auto traffic then must jockey for position in the left lane, pass the truck and then fan out to utilize both lanes, until coming upon another truck. Capacity is lost and the potential for rear end and side swipe crashes is higher.
- Despite advances in technology and in certain driver behaviors, e.g. mandatory seat belt use, children seats, air bags, anti-lock brakes, and assisted vehicle systems, U.S. annual highway fatalities remain between 30,000 and 40,000. Other technologies and behaviors can increase traffic crashes such as texting while driving and dashboard displays that distract drivers. In other words, technology is a “double edged sword” by improving and worsening traffic safety. Before technology is applied in the field, it must be thoroughly researched with adequate, independent, research funding.
- With more states legalizing marijuana, impaired driving by pot users will increase traffic crashes and fatalities.
- Smaller government is good. Big government is bad. I want my police officers spending their time tracking down robbers and murderers, not handing out speeding tickets. Modelling the US after Europe is a terrible concept regardless of the agency.
- The adoption of recreational marijuana in the States is going to be a problem in the immediate future.
- Several of the questions imply that government should put tighter regulations on the behaviors that contribute to some fatal accidents. Checkpoints and reducing the BAC level leads to authoritarianism and does nothing for the greater majority of crashes due to poor driver decisions. We can engineer our way out of a majority of crashes through innovation and moving more quickly to autonomous and connected vehicles.
- Simply replacing many signals with roundabouts would save 60-70% of injuries and even higher percentage of fatalities, as is done in France, UK, Belgium, etc. Unfortunately there has been no effective support from FHWA or other agencies.
- What? No question about transportation funding?! Other countries spend much more proportion on transportation. Also, seat belts. The US lacks seat belt primary laws and enforcement. Distracted driving?
- Speed enforcement in the U.S. has gotten too relaxed. As such, drivers simply regard speed limits with contempt. In addition, there seems to be no public outcry over highway fatalities that range from 30-40 thousand deaths per year. It is incomprehensible that there is so little concern expressed about such levels of highway fatalities.
- Part of the problem is the emphasis on personal rights and freedoms in the US, at the expense of the rights of other members of the community that may be infringed because of poor decisions by individuals. This is a very difficult political and social issue, and the balance varies widely from state to state. E.g., seat belts are acknowledged as very beneficial, but some states do not allow enforcement of seat belt laws as a primary offence, only incidental to another offence. Similarly, many states are increasing speed limits in response to pressure from motorists who believe they should be the best judge of what is a safe speed, but this is a selfish and unsustainable claim that is only true if there are no other road users (drivers, pedestrians, cyclists) present (perhaps unseen) who may not correctly judge the speed of an approaching high-speed vehicle.
- Ultimately, connected vehicle technology may be the best solution.
- Funding for fatality reduction programs is a state by state issue. When a state borders three other states and have three interstate highways carrying out-of-state travelers, the majority of fatal accidents involve out of state travelers. The other states can be questioned about the emphasis put on safety by other states. It may not be a high priority or even get sufficient funding to have any impact. We all need to move toward Zero Deaths goal. The ITE has this as a national emphasis.
- There is too much hope in the ability for humans to not be human. Until we take the human out of the loop, we will not see significant reductions in fatalities. We have made better roadside safety improvements, signing improvements, ITS applications, incredible changes in vehicle safety, but yet, we still cannot build a better human. All the education in the world does not stop a human from needing to get past their adolescent immaturity of invincibility, and graduate them to the wise, cautious responsible citizen that still takes medications, gets drowsy, and gets distracted. As we transition to aged driving abilities, we struggle with true abilities to safely operate a vehicle. The human is too pliable and ever evolving, for good and or bad. That does not make for a fatality free transportation system.
- The infringement of the 4th amendment needs to be part of any conversation when it comes to enforcement of any traffic laws. The ends cannot justify the means.
1. Saugatuck Center Transit Oriented Development Plan
Agency: Town of Westport, CT
Deadline: December 15, 2016, 4:00 PM
Contact: Rich Kotchko, email: kotchko@westportct.gov
Website: http://www.westportct.gov/Modules/ShowDocument.aspx?documentid=10210
Description: The Town invites proposals from consultants and/or firms having expertise in transit oriented development planning, facilitating public participation, website design, transportation planning/engineering, architecture, design and civil engineering, economic analysis, and land use. The consulting firm or team must have all the skills and experience to conduct the total range of planning and engineering required.

2. Sharing and Utilizing Traffic Signal Data to Support Automated Vehicle and Other Applications
Agency: North Central Texas Council of Governments, TX
Deadline: December 16, 2016 by 5:00 p.m.
Contact: All questions regarding this RFP shall be directed in writing by email to TransRFPs@nctcog.org by 5:00 pm on Friday, November 18, 2016
Website: http://www.nctcog.org/Trans/admin/rfp/documents/RFPTrafficSignalData_Final.pdf
Description: After consultation with industry experts and representatives of partner public agencies in the North Central Texas region (partner agencies) the North Central Texas Council of Governments (NCTCOG) believes that transportation-related data generated by partner agencies in the course of operating streets and highways may support the development and deployment of automated vehicles, improving the efficiency and safety of the highway system. The focus of this Request for Partners (RFP) is on one type of such data, namely, traffic signal data (TSD). The purpose of this RFP is to identify potential partners from the private sector, such as auto manufacturers, commonly known as Original Equipment Manufacturers (OEMs), and other parties developing automated vehicles, application developers and travel navigation services, who might use TSD to build products and services that will serve the residents and businesses of North Central Texas and improve the operation of the transportation system in the region. This RFP extends to products and services for vehicles at all levels of automation and is not limited to fully automated vehicles, and includes other applications using TSD that will benefit the North Texas region. All questions regarding this RFP shall be directed in writing by email to TransRFPs@nctcog.org by 5:00 pm on Friday, November 18, 2016.

Agency: Transportation Research Board
Deadline: 1/3/2017
Contact: Mark S. Bush, tel. (202) 334-1646, email: mbush@nas.edu
Website: http://apps.trb.org/cmsfeed/TRBNetProjectDisplay.aspx?ProjectID=4200
Description: The idea of predicting crashes within a given area, such as census tracts or traffic analysis zones (TAZs), allows agencies to identify safety concerns that may not be apparent by examining crash patterns at an intersection or segment scale. This could potentially allow planners to address safety concerns prior to their full materialization. For example, a macro-level model may indicate that changing demographics could result in a sharp uptick in fatalities among the older driver population in a particular section of a city. As a result, agencies could implement wider lane striping and larger sign lettering in that area, or work to improve transit service to older populations. Moreover, macro-level models would help quantify that uptick such that a robust cost benefit analysis could be used to justify one or several of these investments in response to this changing demographic. The ability to analyze and respond to these types of concerns is not currently accounted for in the HSM Predictive Methods.

The objectives of this research are to develop validated and demonstrated quantitative macro-level safety prediction models and a quantitative safety planning chapter for the AASHTO HSM intended for use by transportation practitioners at all levels. This includes a guidance document on the development and application of these models, methods to integrate the model results into planning procedures, and electronic analysis tools for applying the models in practice. The research results are intended as a new chapter for inclusion in a future edition of the HSM. The results should address a broad range of safety planning level issues related to macro-level models such as, but not limited to, geography, demographics, transportation modes and modal interaction, existing or planned land-use and/or transportation projects, model transferability, calibration needs, and associated data limitations.

4. Dynamic Passenger Assignment Research Guidance Project
Agency: Metropolitan Transportation Commission, Bay Area, CA
Deadline: December 2, 2016
Contact: N/A
Website: http://procurements.mtc.ca.gov/Solicitations/solicitation-list.html
Description: MTC, in partnership with the San Francisco County Transportation Authority (SFCTA) and the Puget Sound Regional Council (PSRC), received a grant in 2014 via the Federal Highway Administration’s (FHWA) second Strategic Highway Research Program (SHRP2) Implementation Assistance Program to improve the way in which transit accessibility and passenger behavior is represented in each agency’s travel model. Specifically, the grant strives to develop, implement, and integrate (within an activity-based travel model) a dynamic passenger assignment procedure.

As MTC and our partners endeavored to implement a practical dynamic passenger assignment procedure, we encountered several issues for which there are no well-documented and useful solutions. The purpose of this project is to formally engage the research community to first develop a common understanding of the problems and to then formulate a robust research.

The Request for Qualifications (RFQ) documents for this project are available for download on the MTC website at https://mtc.bonfirehub.com. Proposers are responsible for checking the website for any Addenda to this RFQ. Responses should be submitted in accordance with the instructions set forth in the RFQ.

PUBLIC AGENCIES — RFQ notices are published here FREE OF CHARGE — call (703)764-0512 for details and deadline.
## CONFERENCES

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<th>DATES</th>
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<tr>
<td>2016</td>
<td><strong>National League of Cities City Summit</strong></td>
<td>Pittsburgh, PA</td>
<td>David L Lawrence Convention Center</td>
<td>Smart cities, drones, autonomous vehicles</td>
<td><a href="http://citysummit.nlc.org/">http://citysummit.nlc.org/</a></td>
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<td>Nov. 16-19</td>
<td><strong>10th University Transportation Centers Spotlight Conference:</strong> Pedestrian and Bicycle Safety</td>
<td>Washington, DC</td>
<td>Keck Center</td>
<td>The subject of the 10th University Transportation Centers Spotlight Conference is Pedestrian and Bicycle Safety. Each year, pedestrian and bicycle fatalities comprise over 12 percent of all traffic fatalities. Conditions for safe bicycling and walking have wide-ranging impacts related to accessing public transportation, commuting to school and work, accessing local services, and improving general health. This conference will promote synergies among diverse transportation research and practitioner groups in order to understand and address the unique issues involved with pedestrian and bicycle safety; to spotlight recently completed and ongoing research; and to identify existing knowledge gaps in current research and related activities.</td>
<td><a href="http://www.event.com/events/10th-university-transportation-centers-spotlight-conference-pedestrian-and-bicycle-safety/event-summary-135944f6df45f6a45a9e0ab6c8c839.asp">http://www.event.com/events/10th-university-transportation-centers-spotlight-conference-pedestrian-and-bicycle-safety/event-summary-135944f6df45f6a45a9e0ab6c8c839.asp</a> x</td>
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<td>Dec. 1-2</td>
<td><strong>TRB 96th Annual Meeting</strong></td>
<td>Washington, DC</td>
<td>Walter E. Washington Convention Center</td>
<td>The meeting program will cover all transportation modes, with more than 5,000 presentations in nearly 750 sessions and workshops,</td>
<td><a href="http://www.trb.org/AnnualMeeting/AnnualMeeting.aspx">http://www.trb.org/AnnualMeeting/AnnualMeeting.aspx</a></td>
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<td>2017</td>
<td><strong>APTA Legislative Conference</strong></td>
<td>Washington, DC</td>
<td>JW Marriott Hotel</td>
<td>The Legislative Conference educates members on important federal legislation and policy initiatives; provides members with the opportunity to shape future industry positions and federal transportation policy; provides direction on the industry’s legislative strategy and advocacy efforts with the U.S. Congress and Administration executives; and offers sessions with key members of Congress, Hill staff, Administration officials, and Washington opinion makers.</td>
<td><a href="http://www.apta.com/mc/legislative/Pages/default.aspx">http://www.apta.com/mc/legislative/Pages/default.aspx</a></td>
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<td>March 12-14</td>
<td><strong>International Congress on Transport Infrastructure and Systems (AIIT, the Italian Association for Traffic and Transport Engineering)</strong></td>
<td>Rome, Italy</td>
<td>N/A</td>
<td>The objective of the AIIT International Congress TIS Rome 2017 is to promote transport as a growing industry, and its current significance. The Congress provides a forum for discussion, interactions and exchange among researchers, scientists and engineers whose fields of interest are transport and infrastructure engineering. The congress is organized by the Italian Association for Traffic and Transport Engineering AIIT founded in 1957. The meeting program will cover all transportation modes, with more than 100 presentations in sessions and workshops, addressing topics of interest to policy makers, administrators, practitioners, researchers, and representatives of government, industry, and academic institutions.</td>
<td><a href="http://bisroma.aiit.it/">http://bisroma.aiit.it/</a></td>
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<td>April 10-12</td>
<td><strong>2017 Bus &amp; Paratransit Conference (APTA)</strong></td>
<td>Reno, NV</td>
<td>Grand Sierra Hotel</td>
<td>This technical, educational program covers operations and maintenance, accessibility and paratransit, integrated mobility and transformative technology, first- and last-mile transportation, safety and security, planning and sustainability, funding and finance, capital programs, procurement, and workforce development. Participate in the Maintenance Managers Workshop and Bus Rapid Transit (BRT) Tuesday, DBE Academy Training, National Transit Institute training courses, Bus Display, Products &amp; Services Showcase, and technical tours.</td>
<td><a href="http://www.apta.com/mc/bus/Pages/default.aspx">http://www.apta.com/mc/bus/Pages/default.aspx</a></td>
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N/A = Not Available; m = member; nm = non-member. To list your transportation conferences here FREE, send all information as above to: The UTM Conference Dept., P.O. Box 12300, Burke, VA 22009-2300, or call (703) 764-0512, or fax (703) 764-0516, or email: editors@lawleypublications.com.
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<td>May 8-10</td>
<td>5th International Conference on Roundabouts (Sponsored by TRB and hosted by the Wisconsin Department of Transportation and the University of Wisconsin-Madison)</td>
<td>Green Bay, WI</td>
<td>N/A</td>
<td>The International Roundabout Conference brings hundreds of transportation professionals together as a community of roundabout proponents and practitioners. This triennial conference provides a forum for the exchange of technical, policy, planning, operational, and administrative information on all aspects of roundabouts, including the safety and operational performance that this unique intersection provides for all modes.</td>
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<td>May 14-18</td>
<td>16th TRB National Transportation Planning Applications Conference</td>
<td>Raleigh, NC</td>
<td>Sheraton Hotel, Downtown Raleigh</td>
<td>Conference provides opportunities to showcase new transportation planning techniques and methods emphasizing practical, innovative, and timely technical and policy approaches to transportation planning. Presentations, workshops, discussion sessions and tutorials are all expected to be a part of the 2017 program, continuing the focus on practical, innovative and timely techniques for solving planning problems. As with past conferences, we anticipate hundreds of planners and engineers to gather in Raleigh to discuss, share and network with their peers.</td>
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<td>May 15-17</td>
<td>Global Public Transport Summit (UITP)</td>
<td>Montreal</td>
<td>Palais des congrès de Montréal</td>
<td>A unique global platform for public transport professionals to take the lead in urban mobility. The Global Public Transport Summit is a unique event that covers all urban and regional transport modes. It combines a full program of congress sessions with an exhibition of the latest solutions, innovations and products in public transport and urban mobility.</td>
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<td>May 21-24</td>
<td>5th Urban Street Symposium (TRB)</td>
<td>Raleigh, NC</td>
<td>N/A</td>
<td>The symposium will explore improvements in suburban and urban street design practices, foster discussions on alternative street design practices, examine alternative street designs, and facilitate the transfer of urban street research findings to state agencies and to local governments.</td>
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<td>June 11-14</td>
<td>2017 Rail Conference</td>
<td>Baltimore, MD</td>
<td>Hilton Baltimore Hotel</td>
<td>For all rail modes – urban, commuter, high-speed, and intercity – this technical conference features sessions on technology, operations, maintenance, safety &amp; security, planning, finance, capital projects, workforce development, and more. Experience the latest industry advances at the Products &amp; Services Showcase and join the technical tours.</td>
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<td>June 12-15</td>
<td>First International Roadside Safety Conference: “Safer Roads, Saving Lives, Saving Money” (TRB)</td>
<td>San Francisco, CA</td>
<td>Holiday Inn Golden Gateway</td>
<td>The First International Roadside Safety Conference (IRSC) will provide a global forum to explore current roadside safety problems and practices and disseminate research results related to a full range of roadside safety issues, including: administration, planning, design, construction, operations, and maintenance. The conference theme is “Safer Roads, Saving Lives, &amp; Saving Money.” It is also the goal to highlight technological advancements and innovations involving new research as well as proven practices related to the theme</td>
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<td>July 16-18</td>
<td>Joint Symposium on Managed Lanes and All Electronic Tolling (IBTTA, TRB)</td>
<td>Dallas, TX</td>
<td>Hilton Anatole Dallas</td>
<td>The symposium will explore the latest research, policies, and innovative practices found on toll roads and tolled managed lanes to stimulate continued project development, adoption of the latest technology, and operational practice. Technical sessions and local tours will emphasize the role that the latest practices in innovative project delivery and system planning play in managed lane implementation. While TRB has hosted 16 prior managed lane conferences from 1988 through 2016, this is the first one to focus on innovative project delivery experiences that are becoming common in the profession.</td>
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<tr>
<td>July 24-26</td>
<td>22nd International Symposium on Transportation and Traffic Theory (TRB, Northwestern University)</td>
<td>Evanston, IL</td>
<td>Northwestern University</td>
<td>Covers all scientific aspects of transportation and traffic, spanning all modes of transport—public and private—including freight, air, and maritime modes</td>
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