OTEField

REGAINING A SENSE OF NORMALCY with the 2021 OTEA Fall Meeting

by: Angelo Lombardo, P.E.

The pandemic has affected many lives. I lost close friends my age, members of my faith community and have worried about family members who contracted the virus, like my 87 year-old dad. Fortunately for him, he was fully vaccinated and only had mild symptoms during a two-week period last fall. As a Deacon in the Catholic Church I have found myself consoling many parishioners who have lost a mom, a dad, a wife, a husband, a child or a friend, while serving at what seems like way too many funeral Masses. I have been cautious and limited my exposure to the virus by avoiding large gatherings. The result has been a healthier diet with less dining out, no exotic vacation like I had hoped to take after retiring, suffocating with a mask over my mouth and nose, and spending a lot more time at home.

But things began to change after receiving the second dose of the COVID vaccine with a quick trip to Florida to visit my parents who I had not seen in over a year.

I still yearn for a normal life and sort of experienced that when I attended the 2021 OTEA Fall meeting at the Hard Rock Hotel and Casino in Tulsa. It was so good to see many friends, colleagues and former employees at that time while still exercising caution. But the fact is that my presence at the meeting along with that of close to 80 people gave me the sense that things are slowly but surely returning to normal.

Attendance at the meeting was lower than usual but the enthusiasm of the people there was the same as in past meetings, maybe even more so. We had a great technical program and fun times at the casino. I even won a jackpot! But more importantly, we felt safe and regain the confidence needed to continue having our meetings on a regular basis. So now I am looking forward to the 2022 Spring meeting, which we have at the Ardmore Convention Center from May 4-6, 2022. For the golfers out there, we have some unfinished business to take care of after the abrupt ending of our tournament at Dornick Hills Golf and Country club last time we were there, when a tornado came sweeping down the plains in the middle of the tournament and we had to hunker down in the club house for a couple of hours.

(Continues on Page No. 5)

President's Message	3
The Bipartisan Infrastructure Deal - Plain Facts	7
OK Leaders unveil Long-Range Plan for State's Turnpike System	22
Member News	34
2021 OTEA Fall Meeting in Pictures	35

2021-2022 OTEA OFFICERS

President

Derick Millican, P.E., P.T.O.E.
Olsson

Vice-President

Luke Schmidtt, P.E., P.T.O.E.
Kimley Horn

Treasurer

Justin Calvarese, P.E.
ODOT - Division 1

Directors

Kyle Stevens
ODOT - Traffic Engineering Division

Brian McNabb
City of Norman

Brandon Huxford, P.E., P.T.O.E.
Freese Nichols

Jason Ty Espinoza
Shure-Tite

Past President

Tammy Robinson, P.E.
Haskell Lemon Construction Co.

Section Administrator / Editor

Angelo A. Lombardo, P.E.

ENGINEER DIRECTORY

"A clear direction in transportation planning and design solutions."

Traffic Enginering Consultants, Inc.

6000 South Western Avenue
Suite 300
Oklahoma City, Oklahoma 73139
(405) 720-7721

6931 South 66th East Avenue
Suite 100
Tulsa, Oklahoma 74133
(918) 481-8484

www.tecokc.com

PLACE YOUR AD HERE FOR $100

PLACE YOUR AD HERE FOR $100

JOHNSON & ASSOCIATES

Caleb Morgan, PE, PTOE
SENIOR ENGINEER
cmorgan@jaokc.com

1 EAST SHERIDAN, SUITE 200
OKLAHOMA CITY, OK 73104
(405) 235-8075
FAX (405) 235-8078

www.jaokc.com

PLACE YOUR AD HERE FOR $100

PLACE YOUR AD HERE FOR $100

PLACE YOUR AD HERE FOR $100

PLACE YOUR AD HERE FOR $100

A Message from the President

By: Derick Millican, P.E., P.T.O.E

It was great to see most everyone last September at our Fall Meeting held at the Hard Rock Hotel in Tulsa. It was a successful meeting that included golf, targeted professional development, and various opportunities for networking. I found it very refreshing to see so many of you face to face – perhaps especially those of you who I've been limited to contacting via email, phone, or Teams/Zoom. Nothing against these collaboration methods, but face-to-face is simply better and more personal. Many attendees expressed a similar sentiment as we were able to gather together in person again. As an organization, we will remain committed to gathering safely as we keep up with vital professional development and networking. We believe that our time together is critical to sustain and sharpen our collective efforts toward protecting and advancing the health, safety, and welfare of the travelling public.

We will hold our Spring Conference in Ardmore, OK from Wednesday, May 4th through Friday, May 6th, 2022. Please mark your calendars and be on the lookout for additional details forthcoming. The Board is currently finalizing our technical program for this meeting. If you or someone you know has a topic that might be of interest to our association for the upcoming Fall 2022 meeting, please let me know! Thanks again to those of you who presented at our meeting last Fall.

Thanks to everyone who voted in the recent election for the Oklahoma Section Director to MOVITE. Congratulations to Kristie Drury on her election for a two-year term of service. The end of 2021 marked the conclusion of four years of service (two terms) by James Welch in this role. Many thanks to James for his time and energy representing OTEA's interests to MOVITE!

As we discussed at the Fall Meeting, this year's slate of officers will remain in service through the end of calendar year 2022. Going forward, Board service will be for a given calendar year beginning January 1st and ending on December 31st. With that said, it's never too early to let me or any of the other Board members know of your interest to serve on the Board! The next election will be coming up in Fall 2022.

We'll see you in Ardmore!

Derick Millican, PE, PTOE, RSP1
2021-2022 OTEA President

ENGINEER DIRECTORY

PLACE YOUR AD HERE FOR $100

PLACE YOUR AD HERE FOR $100

PLACE YOUR AD HERE FOR $100

PLACE YOUR AD HERE FOR $100

PLACE YOUR AD HERE FOR $100

PLACE YOUR AD HERE FOR $100

REGAINING A SENSE OF NORMALCY with the 2021 OTEA Fall Meeting

by: Angelo Lombardo, P.E.

(Continues from Page No. 1)

I am also looking forward to our joint meeting with MOVITE this fall, which will be in Downtown Oklahoma City from October 11-13, 2022 at the Omni Hotel and Resort.

The business of the OTEA Board of Directors continues with monthly business meetings and the planning of our future spring and fall meetings. We also elected Kristi Drury as the new MOVITE State Representative. She replaces James Welch who served in that position and represented our Section during the last three years. Thank you James for your service and good luck to Kristie as she begins to serve in this important liaison position.

The organization has also been busy teaching the Traffic Control Work Zone Training and Certification class. The first class during this pandemic time was held July of 2021 in Norman with 29 participants. Another class with 33 registered participants was scheduled for February 2-4, 2022, but had to be postponed due to a winter storm. The new date for this class is March 23-25, 2022. If you know of anyone interested in this training, please share the registration form on Page No. 26 of this Edition of the OTEField. There is still room and we can accommodate an additional ten people. We also offered the class to 24 employees of Duit Construction Company on February 22-24, 2022 and are in the process of scheduling a second class for another group of employees. There may be a third class for them if we can offer it in Spanish as requested by the company's Training Coordinator. If we do so, it will be a first for our organization. Thank you Greg Hietpas of Action Safety Supply for referring the folks with Duit Construction Company to me.

Going back to the 2021 OTEA Fall meeting, let me share some of the highlights:

Attendance:

The attendance at the meeting was on the low side. Several people contacted me beforehand to express concerns over the COVID situation and choosing not to attend. As a result we only had 88 people present at the meeting. As a point of reference, our annual meeting usually has 150 people in attendance.

Golf Tournament:

Participation in our Golf Tournament was outstanding! We had 42 players, an impecable and challenging golf course, and a beautiful sunny day. The winning team, with a runaway round of 59, was made up of Kevin Alexander, Andrew Favret, John Thomas and Brad Bickle. Thanks once again to Marty Pinkley for arranging our tournament.

Finances:

Although attendance was lower than ideal and the meeting was at held at a higher cost venue, we managed to stay in the black with a net profit of $2,599.73. For a more detailed summary of the finances, please see Page No. 28.

Meeting Sponsors:

We had 11 platinum sponsors and 6 Gold sponsors who provided $8,400 to help cover the expenses of the meeting. You can see the companies that contributed on Page No. 27. Make sure you thank them and patronize their businesses.

Technical Program:

There were eleven technical presentations dealing with a wide variety of subjects, including ITS, Rail Safety, Roundabouts, Work Zone Safety, MUTCD Updates, Tulsa Area Bus Rapid Transit and Radar Detection.

In closing I just want to say that it was great to see many of you again at the 2021 Fall meeting after almost two years of COVID imposed isolation. I am looking forward to our Spring meeting as we continue to move forward into a world of normalcy.

Take care and see you soon.

Angelo

OKLAHOMA TRAFFIC ENGINEERING ASSOCIATION EST. 1966 OKite OKLAHOMA SECTION

SUPPLIER DIRECTORY

TrafFix Devices Inc.
160 Avenida La Pata • San Clemente, CA 92673
p: 949.361.5663 • f: 949.361.9205
www.traffixdevices.com

John S. Gense
S.W. Regional Sales Manager

Regional Office
909 Kingsbury Court
Longview, TX 75604
p: 214.704.1476 • f: 949.573.9291
jgense@traffixdevices.com

Pinkley Sales Company

Marty Pinkley

Pinkley Sales Company

344 W. Hefner Road
Oklahoma City, OK 73114

Office (405) 755-0858
Cell (405) 826-7861
Fax (405) 752-7947
e-mail mpinkley@aol.com

PLACE YOUR AD HERE FOR $100

PLACE YOUR AD HERE FOR $100

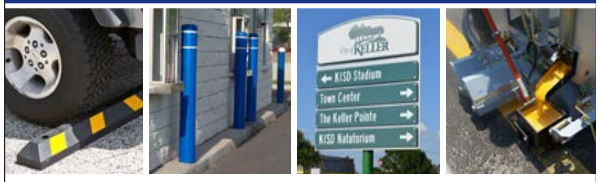
PLACE YOUR AD HERE FOR $100

With Pelco Products, innovation always comes standard.

pelco
PELCO PRODUCTS, INC.
320 West 18th Street • Edmond, OK 73013
405-340-3434
sales@pelcoinc.com
www.pelcoinc.com

SOUTHERN OKLAHOMA BARRICADE, LLC
CHRIS & DANA GREEN
P.O. BOX 1800
KINGSTON, OK 73439
WWW.SOUTHOKBARRICADE.COM
PHONE: 580-565-0108 FAX: 580-564-7187

CENTERLINE
Traffic Control Products, Sales, Service and Support for over 30 years



TRANSLINE
A Transline Industries Company
Grand Prairie • Austin • San Antonio
www.translineinc.com
800.321.1751

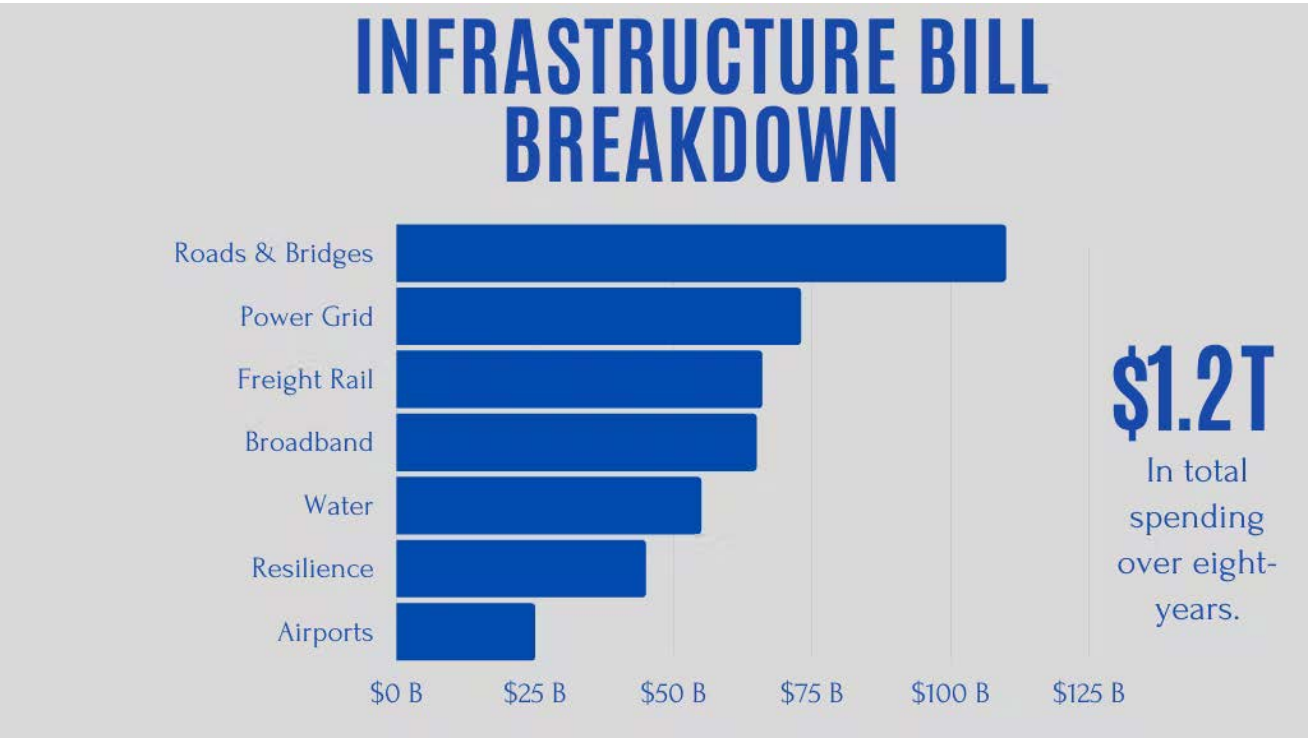
The Bipartisan Infrastructure Deal Plain Facts

On November 6, 2021, Congress passed the Bipartisan Infrastructure Deal (Infrastructure Investment and Jobs Act), a once-in-a-generation investment in our nation's infrastructure and competitiveness. For far too long, Washington policymakers have celebrated "infrastructure week" without ever agreeing to build infrastructure. The President promised to work across the aisle to deliver results and rebuild our crumbling infrastructure. After the President put forward his plan to do exactly that and then negotiated a deal with Members of Congress from both parties, this historic legislation is moving to his desk for signature.

This Bipartisan Infrastructure Deal will rebuild America's roads, bridges and rails, expand access to clean drinking water, ensure every American has access to high-speed internet, tackle the climate crisis, advance environmental justice, and invest in communities that have too often been left behind. The legislation will help ease inflationary pressures and strengthen supply chains by making long overdue improvements for our nation's ports, airports, rail, and roads. It will drive the creation of good-paying union jobs and grow the economy sustainably and equitably so that everyone gets ahead for decades to come. Combined with the President's Build Back Framework, it will add on average 1.5 million jobs per year for the next 10 years.

This historic legislation will:

Deliver clean water to all American families and eliminate the nation's lead service lines. Currently, up to 10 million American households and 400,000 schools and child care centers lack safe drinking water. The Bipartisan Infrastructure Deal will invest $55 billion to expand access to clean drinking water for households, businesses, schools, and child care centers all across the country. From rural towns to to struggling cities, the legislation will invest in water infrastructure and eliminate lead service pipes, including in Tribal Nations and disadvantaged communities that need it most.



(Continues on Page No. 10)

SUPPLIER DIRECTORY

Jason Ty Espinoza
Regional Sales Manager
512.970.9131
jason@shur-tite.com
SHUR-TITE®
P.O. Box 965
Hutto, TX 78634
www.shur-tite.com
512.218.9500

Traffic Signals Inc.
Robert Meadors
Traffic Signals, Inc.
6600 Boucher Drive - Edmond, Oklahoma 73034
Office (405) 341-3101
Fax (405) 348-7489
Cell (405) 203-8588
tsirbm@aol.com

PLACE YOUR AD HERE FOR $100

PSS
Innovations for Safety®

PLACE YOUR AD HERE FOR $100

DUB JANCZYS
Sales Manager
Dub.Janczys@CTC-Traffic.com
CELL 479.270.0340
CORPORATE 817.265.3421
OUTSIDE TEXAS 800.448.8841
FAX 817.274.3610
Consolidated Traffic Controls, Inc.
1016 Enterprise Place
Arlington, Texas 76001 USA
CTC
Serving the Traffic Industry Since 1987
CTC-Traffic.com

Tesco CONTROLS, INC.
O 916.395.8800 Ext. 2167
C 916.765.0523
F 916.403.0013
8440 Florin Road
Sacramento, CA 95828
www.TescoControls.com
Curt Vasey
National Sales Manager
Transportation Division
cvasey@tescocontrols.com

PLACE YOUR AD HERE FOR $100

Crash Deaths Up Over First Nine Months Of 2021

The National Highway Traffic Safety Administration estimates that 31,720 people died in motor vehicle traffic crashes during the first nine months of 2021, an increase of approximately 12 percent from the 28,325 fatalities initially projected for the first nine months of 2020.

The agency noted in a statement that nine-month fatality figure the highest of any year since 2006.

“People make mistakes, but human mistakes don’t always have to be lethal. In a well-designed system, safety measures make sure that human fallibility does not lead to human fatalities,” noted Pete Buttigieg secretary of the U.S. Department of Transportation, in a separate statement.

“That’s what we will be doing for America’s roads with the National Roadway Safety Strategy and the safe system approach that it embraces,” he added.

However, when overlaid with vehicle miles traveled or VMT data collected by the Federal Highway Administration, the overall crash fatality rate remained relatively unchanged in 2021 versus 2020 – with fatality rates in the second and third quarters of 2021 actually declining compared to the same two quarters in 2020.

According to FHWA data, VMT in the first nine months of 2021 increased by about 244 billion miles or an 11.7 percent versus the same period in 2020.

NHTSA’s early estimate report also provides the first look at state-level traffic fatality estimates during the pandemic. Compared to 2020, the agency projected that during the first nine months of 2021, fatalities increased in 38 states, remained flat in two states, and decreased in 10 states and the District of Columbia.

Jim Tymon, executive director of the American Association of State Highway and Transportation Officials, noted that the number one priority for state departments of transportation is safety, “but even still, we’ve seen an unacceptable increase in roadway fatalities during the pandemic.”

State DOTs also believe that the increased funding for safety in the $1.2 trillion Infrastructure Investment and Jobs Act presents opportunities to leverage resources to make a difference in addressing these unacceptable fatalities, he added.

“States stand ready to work with all stakeholders to more holistically and adequately address this crisis,” Tymon said.

Source: National Highway Traffic Safety Administration, February 4, 2022

An Air Evac Helicopter leaving the scene of a head-on crash on US 81 in Grant County, OK

The Bipartisan Infrastructure Deal Plain Facts

(Continues from Page No. 7)

Ensure every American has access to reliable high-speed internet. Broadband internet is necessary for Americans to do their jobs, to participate equally in school learning, health care, and to stay connected. Yet, by one definition, more than 30 million Americans live in areas where there is no broadband infrastructure that provides minimally acceptable speeds – a particular problem in rural communities throughout the country. And, according to the latest OECD data, among 35 countries studied, the United States has the second highest broadband costs. The Bipartisan Infrastructure Deal will deliver $65 billion to help ensure that every American has access to reliable high-speed internet through a historic investment in broadband infrastructure deployment. The legislation will also help lower prices for internet service and help close the digital divide, so that more Americans can afford internet access.

Repair and rebuild our roads and bridges with a focus on climate change mitigation, resilience, equity, and safety for all users. In the United States, 1 in 5 miles of highways and major roads, and 45,000 bridges, are in poor condition. The legislation will reauthorize surface transportation programs for five years and invest $110 billion in additional funding to repair our roads and bridges and support major, transformational projects. The Bipartisan Infrastructure Deal makes the single largest investment in repairing and reconstructing our nation's bridges since the construction of the interstate highway system. It will rebuild the most economically significant bridges in the country as well as thousands of smaller bridges. The legislation also includes the first ever Safe Streets and Roads for All program to support projects to reduce traffic fatalities, which claimed more than 20,000 lives in the first half of 2021.

Improve transportation options for millions of Americans and reduce greenhouse emissions through the largest investment in public transit in U.S. history. America's public transit infrastructure is inadequate – with a multibillion-dollar repair backlog, representing more than 24,000 buses, 5,000 rail cars, 200 stations, and thousands of miles of track, signals, and power systems in need of replacement. Communities of color are twice as likely to take public transportation and many of these communities lack sufficient public transit options. The transportation sector in the United States is now the largest single source of greenhouse gas emissions. The legislation includes $39 billion of new investment to modernize transit, in addition to continuing the existing transit programs for five years as part of surface transportation reauthorization. In total, the new investments and reauthorization in the Bipartisan Infrastructure Deal provide $89.9 billion in guaranteed funding for public transit over the next five years — the largest Federal investment in public transit in history. The legislation will expand public transit options across every state in the country, replace thousands of deficient transit vehicles, including buses, with clean, zero emission vehicles, and improve accessibility for the elderly and people with disabilities.

Upgrade our nation's airports and ports to strengthen our supply chains and prevent disruptions that have caused inflation. This will improve U.S. competitiveness, create more and better jobs at these hubs, and reduce emissions. Decades of neglect and underinvestment in our infrastructure have left the links in our goods movement supply chains struggling to keep up with our strong economic recovery from the pandemic. The Bipartisan Infrastructure Deal will make the fundamental changes that are long overdue for our nation's ports and airports so this will not happen again. The United States built modern aviation, but our airports lag far behind our competitors. According to some rankings, no U.S. airports rank in the top 25 of airports worldwide. Our ports and waterways need repair and reimagination too. The legislation invests $17 billion in port infrastructure and waterways and $25 billion in airports to address repair and maintenance backlogs, reduce congestion and emissions near ports and airports, and drive electrification and other low-carbon

(Continues on Page 18)

US approves New Headlights that won't blind oncoming Drivers

By: The Associated Press via Nexstar Media Wire

DETROIT (AP) - Anyone who has ever been temporarily blinded by high-beam headlights from an oncoming car will be happy to hear this.

U.S. highway safety regulators are about to allow new high-tech headlights that can automatically tailor beams so they focus on dark areas of the road and don't create glare for oncoming drivers.

The National Highway Traffic Safety Administration says it issued a final rule allowing what's called “adaptive driving beam headlights” on new vehicles. It will go into effect when published in the Federal Register in the next few days.

The headlights, commonly used in Europe, have LED lamps that can focus beams on darkness such as the driver's lane and areas along the roadside. They also lower the intensity of the light beams if there's oncoming traffic. Camera sensors and computers help determine where the light should go.

“This final rule will improve safety for pedestrians and bicyclists by making them more visible at night, and will help prevent crashes by better illuminating animals and objects in and along the road,” the agency said in a news release on Tuesday.

The new rule, which was supported by the auto industry, comes as the safety agency grapples with a dramatic rise in traffic deaths nationwide.

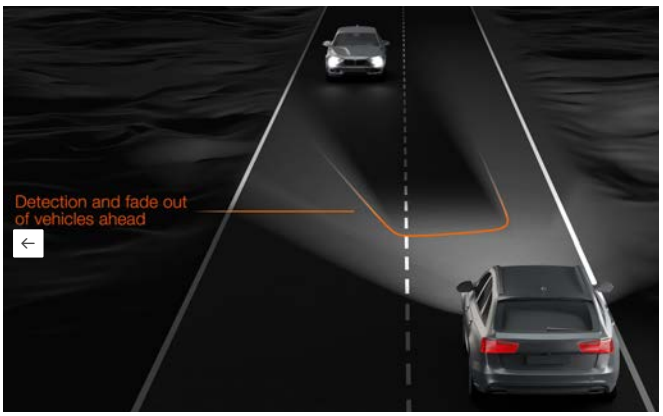
The number of U.S. traffic deaths surged in the first nine months of 2021 to 31,720, the government reported Tuesday, keeping up a record pace of increased dangerous driving during the coronavirus pandemic.

The estimated figure of people dying in motor vehicle crashes from January to September 2021 was 12% higher than the same period in 2020. That represents the highest percentage increase over a nine-month period since the Transportation Department began recording fatal crash data in 1975.

The tally of 31,720 deaths was the highest nine-month figure since 2006.

Sam Abuelsamid, principal mobility analyst for Guidehouse Research, said the new lights will show up in higher-cost luxury vehicles at first but will spread to more mainstream vehicles as the price of the technology falls.

Currently Audi charges $3,000 for the top version of the lights in the U.S. on its e-tron Sportback electric vehicle. The adaptive beam lights are offered on most Audi models in the U.S., but until now, could not be used. An Audi spokesman says the company is evaluating whether the lights meet NHTSA standards and whether they can be activated in the future.



Continues on Page No.21

Solving A Puzzle: With Fewer Drivers on the Road During COVID, Why the Spike in Fatalities?

AAA Foundation Research Finds High-Risk Younger Men Were a Larger Share of Those Who Drove More

WASHINGTON, D.C. (February 28, 2022)—As the COVID-19 pandemic swept across the country, it led to fewer drivers on the roads and a significant reduction in the number of miles driven. And yet, U.S. government data shows traffic fatalities have surged, along with an increase in crashes involving impairment, speeding, red-light running, aggressiveness, and non-seatbelt use, to its highest level in over a decade. To understand the rise in dangerous driving behaviors, the AAA Foundation for Traffic Safety examined whether the pandemic changed the composition of drivers on the road. It found that while most drivers reduced their driving during the pandemic, a small proportion actually increased their driving. Making matters worse, those who increased their driving appeared to be riskier than average, even after accounting for their age, gender, and how much they drove.

"Our research finds that higher-risk motorists accounted for a greater share of drivers during the pandemic than before it," said Dr. David Yang, executive director of the AAA Foundation for Traffic Safety. "Safety-minded individuals drove less, while many who increased their driving tended to engage in riskier behaviors behind the wheel."

The Foundation's new research finds while only a small percentage of drivers (4%) increased their driving due to the pandemic, they were younger and disproportionately male —a statistically riskier driver group than the average population.

In addition, those who increased their driving during the pandemic were more likely to report engaging in the following risky driving behaviors in the previous 30 days:

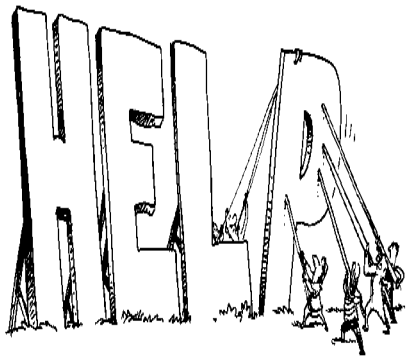
Percent of Drivers who Engaged in Various Risky Behaviors in the 30 Days Before the Survey (October-November 2020)

Behaviors in 30 Days Before Survey	People who Increased Driving During Pandemic	People who Did Not Increase Their Driving
Speeding 10+ mph over Speed Limit on a Residential Street	51%	35%
Reading a Text	50%	33%
Red-Light Running on Purpose	45%	25%
Changing Lanes Aggressively	43%	20%
Not Wearing a Seatbelt	21%	12%
Alcohol-Impaired Driving	13%	6%
Driving After Cannabis Use	13%	4%

The COVID-19 pandemic and its associated restrictions have significantly affected travel behavior and traffic safety in the United States. According to the Foundation's newest American Driving Survey, during the early months of the pandemic, the average daily number of driving trips made by U.S. adults decreased by an estimated 42% in April 2020, rebounded slightly, and then leveled off in the second half of 2020 at 2.2 daily trips, roughly 20% below the 2.7 daily trips in the second half of 2019.

And yet, when the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) released its 2020 traffic fatality data, it found an estimated 38,680 people died in vehicle crashes—the largest number of fatalities since 2007. This represents an increase of about 7.2 percent compared to the 36,096 deaths reported in 2019.

(Continues on Page No. 19)



- The OTEField is intended to inform and create discussion in our profession.
- Contributions from any person are welcomed.
- The information presented in this newsletter does not necessarily reflect the views of O.T.E.A.
- Any product mentioned is not endorsed by O.T.E.A.
- Opinions must be signed by the writer and may only reflect the writer's views.
- The OTEField's reserves the right to edit any material which it considers malicious or slanderous.
- Send articles, comments or suggestions to Angelo Lombardo, Editor, 6901 Broomsedge Drive, Argyle, TX 76226-2708 or E-Mail at AAAAMMLOMB@sbcglobal.net

Pilot Program aims to Reduce Deadly Wrong-Way Crashes in Oklahoma

By: Pete Knutson

TULSA, Okla. - Wrong-way drivers are a growing and devastating problem, causing multiple deadly crashes over the last few months in the Tulsa area.

Highway 75 near Ramona, the Muskogee Turnpike near Muskogee, the I-44 and Highway 75 interchange and near Highway 169 and 91st Street in Tulsa are all sites of these kinds of crashes.

Confusion in the dark of night, pretzel-like construction detours, and driving under the influence are just some of the reasons why these crashes are popping up.

A few minutes after midnight, on a beautiful fall weekend, came a knock on the door.

A trooper told Kristy and Jeff Murrow, their only daughter, Marissa Renee, had been hit, head-on, by a wrong way, drunk driver one fall weekend.

"It's devastating," Kristy Murrow tells us.

The day 2 News met with Murrow, to talk about her daughter, would have been Marissa's 21st birthday.

"It's that bad you never want anyone else to know this."

To help the family heal during the holidays, she put up a remembrance tree, as she calls it. It still stands in the corner of their living room, and in the center of their hearts.

On each branch, a memory, from Marissa's first day to her last. "She was part of our lives for 7,193 days and we're grateful for every single one of them."

Many times, since that day in October 2020, she says grief has squeezed her heart, without mercy, for months, not just emotionally, but physically.

This is how it must feel, Murrow says, to have your heart, break, "it's just the biggest gaping hole you can imagine."

She says her heart aches even more, as she listens to Marissa sing her favorite song.

"Music is both a blessing and a curse now," Murrow says. Marissa loved to sing, at church, at school, at home.

"It's tough when every single commute to work brings tears, you get tired of crying, but you can't help it."

AAA says an average of 500 people die in the 2,000 wrong-way driving incidents every year across the country.

The Oklahoma Department of Transportation is rolling out a pilot program to help stop the grieving. The $2.3 million pilot program includes improving signs and striping at four interchanges with confusing configurations, all along I-40 between Oklahoma City and the Arkansas state line.

"It's bad out there, it takes lives, so I'm excited someone is taking steps to remedy it," Murrow says.

It includes one interchange at Tiger Mountain, near Henryetta and at exits 287, 311. and 330.

At those interchanges, you'll soon see a new system to detect those driving the wrong way.

"It commands their attention," says Nick Schmidling, a senior product manager with TAPCO, a company that produces wrong-way detection systems, says it includes bright, blinking, LED warning signs.

(Continues on Page No.23)

Chapter, Section, District and International Meetings

Oklahoma Traffic Engineering Association

2022 OTEA SPRING MEETING

Mark your calendar for the 2022 Spring Meeting

ARDMORE CONVENTION CENTER

Date: May 4 - 6, 2022

Ardmore Convention Center
Ardmore, Oklahoma

PRELIMINARY PROGRAM

- ✓ Norman's Traffic Management Center Study
- ✓ ODOT Traffic Engineering Division Update
- ✓ OCARTS 2045 Plan Update
- ✓ Oklahoma Turnpike System Cashless Tolling
- ✓ OTA's Access Oklahoma Long Range Plan
- ✓ I-35 Corridor Study
- ✓ Vendor Exhibits

BEYOND THE PANDEMIC

Registration packets will be e-mailed in early March of 2022. You will also be able to download the information from the OTEA Web Page - http://otea-ok.org at that time.

ite A Community of Transportation Professionals

MOVite FOUNDED 1951 Institute of Transportation Engineers Missouri Valley Section

OK ite

ite New Orleans 22

Annual Meeting and Exhibition

July 31–August 3

2022 MOVITE MEETING

NAVIGATING THE NEW TRANSPORTATION

2022 MOVITE SPRING MEETING
OVERLAND PARK, KANSAS
APRIL 20TH–22ND

MOVite FOUNDED 1951 Institute of Transportation Engineers Missouri Valley District

KS ite

MOVite FOUNDED 1951 Institute of Transportation Engineers Missouri Valley District

Joint Fall Meeting
October 11-13, 2022
Oklahoma City

OKLAHOMA TRAFFIC ENGINEERING ASSOCIATION EST. 1966

Cyberattacks on Cars increased 225% in last three years

By Brian Blum

Upstream Automotive Cybersecurity Report reveals that the top attack categories were data/privacy breach, car theft/break-ins and control systems.

The year 2021 brought an increasing number of cyberattacks on cars, as hackers tap into advanced technologies, according to Upstream's fourth annual Automotive Cybersecurity Report.

Upstream, a cybersecurity and data management platform for connected vehicles, based in Herzliya and Michigan, analyzed more than 900 publicly reported cyberattacks on cars in the last decade.

The highlights:

- The frequency of cyberattacks on cars increased 225 percent from 2018 to 2021.
- Nearly 85% of attacks in 2021 were carried out remotely, outnumbering physical attacks four to one.
- 40% of attacks targeted back-end servers.
- 2021 saw 54.1% of attacks carried out by "Black Hat" (malicious) actors, up from 49.3% in 2020.
- The top attack categories were data/privacy breach (38%), car theft/break-ins (27%), and control systems (20%).
- Keyless entry and key fob attacks account for 50% of all vehicle thefts. Thieves only need to be close to the key fob for a Black Hat hacker to pick up and reproduce its signal.

All told, Upstream estimates that the automotive industry is projected to lose $505 billion by 2024 to cyberattacks.

(Continues on Page No. 25)

ODOT selects New Interchange Design for I-35 and SH-9 West in McClain County

Following input from the public and stakeholders, the Oklahoma Department of Transportation is announcing its preferred design for reconstruction of the I-35 and SH-9 West interchange near Goldsby in McClain County. The project will now move forward to the next phases of development, which include more detailed design, environmental review, right-of-way acquisition and utility relocation in preparation for future construction.

The selected design proposes reconstruction of the I-35 and SH-9 West interchange as a Diverging Diamond Interchange with an additional reliever ramp to N.W. 12th Ave. The DDI option, Alternative 2B, was the preferred choice of the Town of Goldsby and the City of Newcastle while also providing the best outcome for users of this interchange. This design will help alleviate traffic backups on southbound I-35 during peak travel times and provides easy access to both SH-9 West and the local road system. Additionally, S. Harvey St. and N.W. 12th Ave. will be realigned to connect to the intersection of Bankers Ave. and Lamar Rd., west of I-35. The preferred design, Alternative 2B, was selected from four proposals presented for consideration.

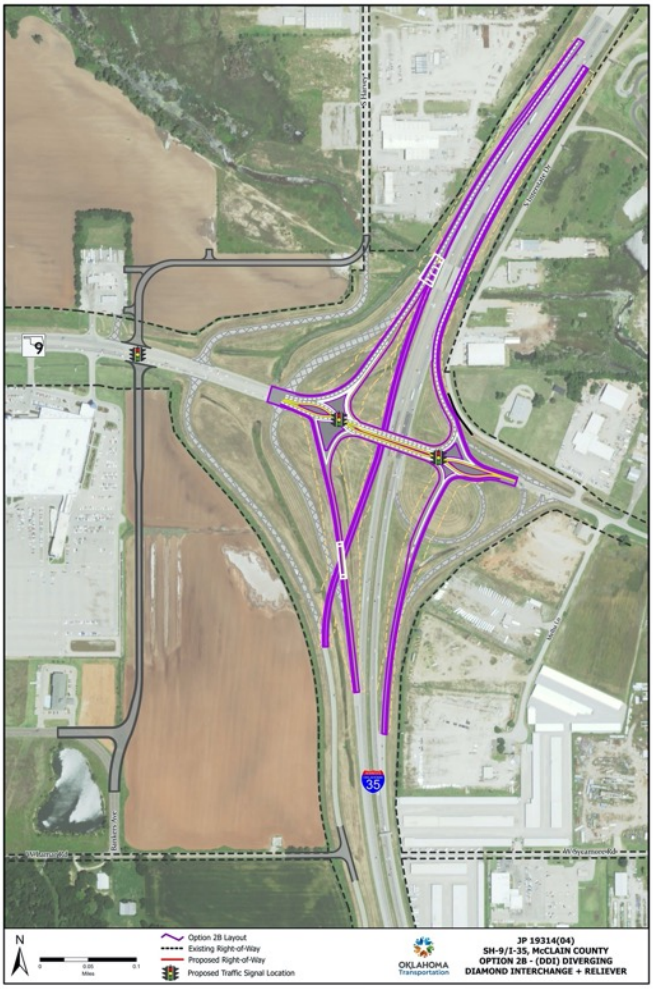
The innovative DDI design can accommodate large volumes of turning traffic by shifting traffic to the left side of a divided roadway through a series of coordinated signals for safer and more efficient left turns. Oklahoma's first DDI at I-40 and SH-6 in Elk City opened in 2020 and has received many accolades, including national awards for quality bridge and pavement construction.

The department hosted a public meeting about this project on Nov. 18, 2021, in Goldsby and received written comments from more than 50 individuals and stakeholder organizations.

During evaluation of the various design concepts and feedback from the public and stakeholders, ODOT determined the DDI is the best design for managing current and future traffic volumes on I-35 and SH-9 West as rapid growth and development continue in this area. I-35 currently carries nearly 82,000 vehicles per day in this area, and traffic volumes are projected to grow to 128,000 vehicles per day by 2050.

The estimated $20 million interchange reconstruction project is currently scheduled in ODOT's Eight-Year Construction Work Plan to go to bid in 2023.

The public can find more information about this project by visiting www.odot.org and clicking "Program &



The Oklahoma Department of Transportation has selected Alternative 2B as the preferred design for reconstruction of the I-35 and SH-9 West interchange near Goldsby in McClain County. The preferred alternative includes configuration of I-35 and SH-9 West as a Diverging Diamond Interchange with a dedicated southbound I-35 off-ramp to N.W. 12th Ave.

Source: Oklahoma Department of Transportation, Press Release, January 14, 2022

White House issues Guidebook for Communities to Access Infrastructure Funding

By: Alex Gangitano

The White House on Monday released a guidebook to help state and local governments access funding from the bipartisan infrastructure law.

The guidebook is a "one-stop-shop" for information about the law, according to the White House, and provides current materials about the more than 375 programs the law will fund for state, local, tribal and territorial governments.

The guidebook was released as Biden welcomed governors to the White House on Monday while they are in Washington for the National Governors Association's winter meeting.

The more than 460-page guidebook is made up of 12 chapters that group the law's programs by issue area, and it provides explainers for governments to prepare to receive the funding. It is available online, with information about projects broken up by transportation, climate and energy, and broadband.

The White House also published data for people to sort programs funded under the law by fields such as agency, amount, recipient and program name.

Governors received a letter earlier this month with recommendations about preparing to receive the funding from the law, which the president signed in November.

Source: The Hill, January 31, 2022

"Our primary goal is to empower people across the country with information, so they know what to apply for, who to contact, and how to get ready to rebuild," Mitch Landrieu, senior adviser and infrastructure implementation coordinator, said in a statement.

The Bipartisan Infrastructure Deal Plain Facts

(Continues from Page No. 10)

technologies. Modern, resilient, and sustainable port, airport, and freight infrastructure will strengthen our supply chains and support U.S. competitiveness by removing bottlenecks and expediting commerce and reduce the environmental impact on neighboring communities.

Make the largest investment in passenger rail since the creation of Amtrak. U.S. passenger rail lags behind the rest of the world in reliability, speed, and coverage. China already has 22,000 miles of high-speed rail, and is planning to double that by 2035. The legislation positions rail to play a central role in our transportation and economic future, investing $66 billion in additional rail funding to eliminate the Amtrak maintenance backlog, modernize the Northeast Corridor, and bring world-class rail service to areas outside the northeast and mid-Atlantic. This is the largest investment in passenger rail since Amtrak's creation, 50 years ago and will create safe, efficient, and climate-friendly alternatives for moving people and freight.

Build a national network of electric vehicle (EV) chargers. U.S. market share of plug-in EV sales is only one-third the size of the Chinese EV market. That needs to change. The legislation will invest $7.5 billion to build out a national network of EV chargers in the United States. This is a critical step in the President's strategy to fight the climate crisis and it will create good U.S. manufacturing jobs. The legislation will provide funding for deployment of EV chargers along highway corridors to facilitate long-distance travel and within communities to provide convenient charging where people live, work, and shop. This investment will support the President's goal of building a nationwide network of 500,000 EV chargers to accelerate the adoption of EVs, reduce emissions, improve air quality, and create good-paying jobs across the country.

Upgrade our power infrastructure to deliver clean, reliable energy across the country and deploy cutting-edge energy technology to achieve a zero-emissions future. According to the Department of Energy, power outages cost the U.S. economy up to $70 billion annually. The Bipartisan Infrastructure Deal's more than $65 billion investment includes the largest investment in clean energy transmission and grid in American history. It will upgrade our power infrastructure, by building thousands of miles of new, resilient transmission lines to facilitate the expansion of renewables and clean energy, while lowering costs. And it will fund new programs to support the development, demonstration, and deployment of cutting-edge clean energy technologies to accelerate our transition to a zero-emission economy.

Make our infrastructure resilient against the impacts of climate change, cyber-attacks, and extreme weather events. Millions of Americans feel the effects of climate change each year when their roads wash out, power goes down, or schools get flooded. Last year alone, the United States faced 22 extreme weather and climate-related disaster events with losses exceeding $1 billion each – a cumulative price tag of nearly $100 billion. People of color are more likely to live in areas most vulnerable to flooding and other climate change-related weather events. The legislation makes our communities safer and our infrastructure more resilient to the impacts of climate change and cyber-attacks, with an investment of over $50 billion to protect against droughts, heat, floods and wildfires, in addition to a major investment in weatherization. The legislation is the largest investment in the resilience of physical and natural systems in American history.

Deliver the largest investment in tackling legacy pollution in American history by cleaning up Superfund and brownfield sites, reclaiming abandoned mines, and capping orphaned oil and gas wells. In thousands of rural and urban communities around the country, hundreds of thousands of former industrial and energy sites are now idle – sources of blight and pollution. Proximity to a Superfund site can lead to elevated levels of lead in children's blood. The bill will invest $21 billion clean up Superfund and

(Continues on Page No. 21)

Solving A Puzzle: With Fewer Drivers on the Road During COVID, Why the Spike in Fatalities?

(Continues from Page No. 12)

And the surge in fatalities continues, with NHTSA's new data for traffic fatalities for the first nine months of 2021, finding that an estimated 31,720 people died in crashes from January through September 2021, an increase of approximately 12% compared to the first nine months of 2020.

The increase in traffic fatalities is not a worldwide occurrence. Road deaths have been reported to be lower in almost all other high-income countries since 2019.

"Despite safer roads, safer vehicles and stronger traffic safety laws on the books, the U.S. has witnessed more, not less death on our roadways even at a time when other nations saw dramatic drops," said Jake Nelson, AAA's director of traffic safety advocacy and research. "What is absolutely clear to AAA is that it will take new action to get us closer to zero traffic deaths."

AAA is a strong supporter of adopting The Safe System Approach (SSA) to roadway safety. The SSA uses current effective countermeasures to create multiple layers of protection for transportation network users, rather than responding reactively only after there is evidence of a specific safety problem. For example, the U.S. needs to use better methods to determine posted speed limits rather than more common and outdated approaches. Other countries have leveraged SSA to curb traffic deaths—47% (Australia) and 80% (Spain).

For drivers, AAA recommends these safety tips to keep in mind:

Obey speed limits. Drivers tend to overestimate the time saved by speeding. You'd have to travel 100 miles to save roughly 5 minutes, moving at 80 mph instead of 75 mph. Speed kills and isn't worth the cost. And recent AAA Foundation research shows that small speed increases were enough to raise a driver's risk of severe injury or death.

Only drive sober. If you consume marijuana, alcohol, or use potentially impairing prescription medications, then don't drive. And if you're going to drive, don't consume these substances.

Out of sight, out of mind. Stow your smartphone away, turn it to airplane mode, or activate call/text blocking features like Apple's Do Not Disturb.

Buckle Up. Properly wearing a seat belt is the single most effective thing you can do to protect yourself in a crash. Wearing a seat belt reduces the risk of serious injury or death in a crash by up to 50 percent.

Stay Cool. AAA encourages drivers to maintain a cool head and focus on reaching their destination safely. If you encounter a dangerous driver, maintain space around your vehicle and contact 9-1-1 if needed.

Source: AAA Newsroom, Andrew Gross, February 28, 2022

FHWA Announces More Funding and Flexibility for Key Highway Safety Program under President Biden's Bipartisan Infrastructure Law

By: FHWA Press Office

WASHINGTON – The U.S. Department of Transportation's Federal Highway Administration (FHWA) today released new guidance to implement changes in its signature highway safety funding program, which received substantial new funding under President Biden's Bipartisan Infrastructure Law. The guidance ensures that the new funds are used strategically to make travel safer, including protecting people outside of vehicles, such as people walking, biking, or using mobility assistive devices, thereby reducing the number of lives lost on the nation's highways, bridges, and roads. The efforts complement the Department's new National Roadway Safety Strategy. (Read U.S. Transportation Secretary Pete Buttigieg's remarks on the Strategy.)

In guidance issued today, FHWA outlined several changes to its Highway Safety Improvement Program (HSIP) that can help state, local, and tribal transportation agencies save lives on the roads and bridges they own and operate. The HSIP is one of the most important federal programs for transportation agencies in their efforts to protect all road users, and the Bipartisan Infrastructure Law bolsters it with an infusion of additional funds. HSIP funding levels from 2016 to 2020 under the Fixing America's Surface Transportation (FAST) Act totaled $11.5 billion. Under the Bipartisan Infrastructure Law, HSIP funding from 2022 to 2026 will increase significantly to $15.6 billion.

"FHWA's goal is to help state and local transportation agencies across the country deliver projects that make streets, highways, and bridges safe and accessible for all users," said Deputy Federal Highway Administrator Stephanie Pollack. "Under the President's Bipartisan Infrastructure Law, states now have more flexibility and funding to make highway safety improvements."

Consistent with the National Roadway Safety Strategy, FHWA recommends that HSIP funds be used to incorporate a more data-driven, holistic and equitable Safe System Approach to roadway safety that builds in redundancies so if one element of a transportation system fails, other elements provide protection to save lives and prevent serious injuries on our roads.

The HSIP places a focus on infrastructure safety improvements, and under the Bipartisan Infrastructure Law, states now have more flexibility to use up to 10 percent of their HSIP funds for "specified safety projects" that include non-infrastructure safety projects such as public awareness campaigns, research, automated traffic enforcement systems, emergency services, and efforts to protect children such as Safe Routes to School activities.

The FHWA guidance issued today also implements the provisions of the Bipartisan Infrastructure Law that will help vulnerable road users who are considered to be most at risk for being involved in traffic crashes that result in fatalities. These road users include people who walk, bike, and use personal conveyances. To protect them, the new law adds a Vulnerable Road User Safety Special Rule to the HSIP. Under the rule, if vulnerable road users make up 15 percent or more of the total number of fatalities in a state in a given year, the state is required to dedicate at least 15 percent of its HSIP funds the following fiscal year to projects that address the safety of these road users. Additionally, the new guidance incorporates legislative changes to permit 100% Federal funding for certain pedestrian and bicyclist projects.

Source: FHWA Press Office, FHWA 04-22, February 6, 2022

The Bipartisan Infrastructure Deal Plain Facts

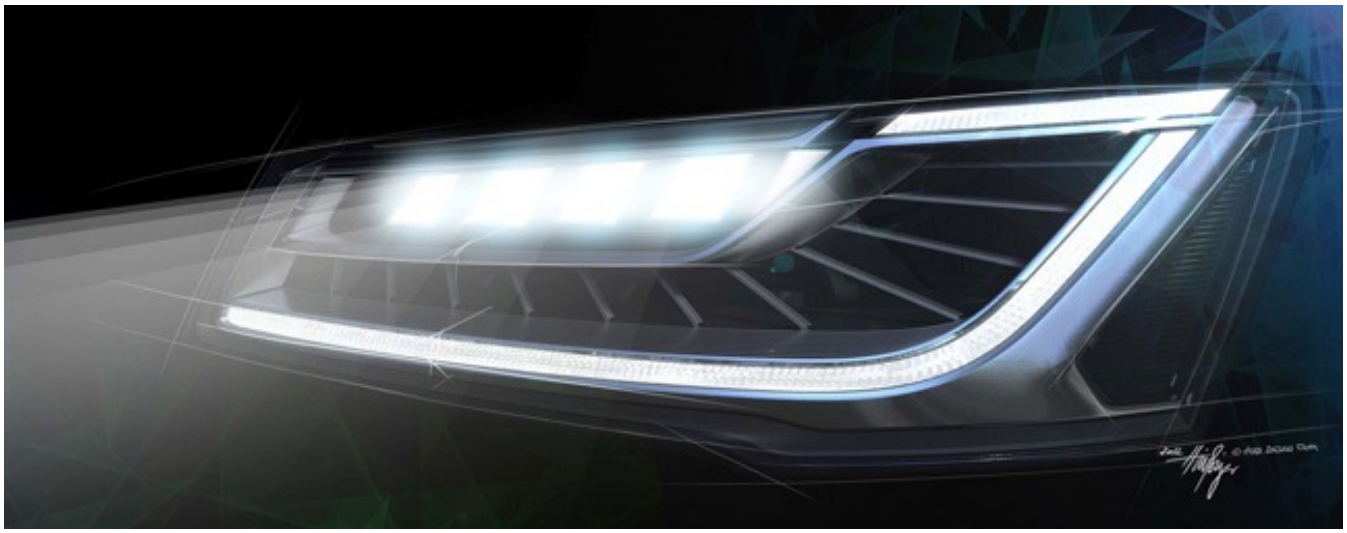
(Continues from Page No. 18)

brownfield sites, reclaim abandoned mine land and cap orphaned oil and gas wells. These projects will remediate environmental harms, address the legacy pollution that harms the public health of communities, create good-paying union jobs, and advance long overdue environmental justice This investment will benefit communities of color as, it has been found that 26% of Black Americans and 29% of Hispanic Americans live within 3 miles of a Superfund site, a higher percentage than for Americans overall.

Source: The White House, Briefing Room, November 6, 2021

US approves New Headlights that won't blind oncoming Drivers

By: The Associated Press via Nexstar Media Wire



(Continues from Page No.11)

The technology uses an array of light emitting diodes that can change where light beams are sent, rather than the current technology of high beams hitting everywhere. “You have the ability to basically create a light pattern on the fly that is optimized for real-time conditions,” Abuelsamid said. “You can cast the light where it’s most useful.”

The new lights also will help partially automated driver assist systems keep cars in their lanes and avoid objects in front of the vehicles at night, Abuelsamid said.

The new lighting regulation also comes more than 1 1/2 years ahead of a requirement in the bipartisan infrastructure law passed by Congress last year, NHTSA said.

In the past, the agency has moved slowly on safety measures mandated by Congress. An Associated Press review last year of NHTSA’s rule-making activities under the last three presidents found at least 13 auto safety rules that are years overdue based on deadlines set in laws passed by Congress.

The agency has been without a Senate-confirmed administrator since early 2017. President Joe Biden has nominated former California air quality regulator Steven Cliff for the post. Cliff is awaiting confirmation by the full Senate.

Source: The Associated Press via Nexstar Media Wire
February 16, 2022

Oklahoma Leaders unveil Long-Range Plan for State's Turnpike System

Oklahoma Turnpike Authority officials said the board will welcome Stitt and Secretary of Transportation Tim Gatz to discuss the new plan.

The Oklahoma Turnpike Authority announced a $5 billion, 15-year plan to improve the state's turnpike system.

State officials said during a news conference Tuesday that the plan, which is called Advancing and Connecting Communities and Economies Safely Statewide, identifies and addresses ongoing highway infrastructure needs to improve access to communities across Oklahoma.

A news release says the plan is the first of its type by the Oklahoma Turnpike Authority and will complement the agency's five-year Capital Improvement Plan.

"The future of our economy will depend on having a modern highway system that manages congestion and reliable travel times," Gov. Kevin Stitt said in a statement. "ACCESS Oklahoma is a bold investment in our future that provides needed corridor connections and expansions while making travel easier and leading to more economic development across the state."

The Oklahoma Turnpike Authority said ACCESS Oklahoma includes:

Widening the Turner Turnpike to six lanes between Oklahoma City and Bristow. That will create a six-lane highway for the entirety of the turnpike between Oklahoma's two largest metros.
The construction of reliever routes around Oklahoma's two largest metropolitan areas.
Off- and on-ramps constructed on the existing turnpike system, improving traffic safety for additional rural Oklahoma communities.
"ACCESS Oklahoma is a strategic corridor plan that focuses on travel time reliability, easing congestion in our metro areas, moving freight across the state and adding access to communities that previously were not connected to turnpikes," Secretary of Transportation Tim Gatz said in a statement. "Addressing these needs will directly impact citizens' quality of life while enhancing the state's infrastructure for future growth. But most importantly, each of these projects will improve highway safety for motorists."

A news release says ACCESS Oklahoma will be fully paid for with bonds and will not impact any part of the state's budgeting process. Revenue also will not be diverted from other state priorities.

Authorities said revenues from tolls, investments and concession leases will pay for all operating and maintenance costs for turnpikes and pay off the bonds issued to finance their construction.

Authorities also launched the plan's website, which has links to the state's various projects and an interactive map showing ACCESS's preliminary alignments and locations. The website says the projects will soon start initial engineering activities and are subject to change.

(See Map on Page No. 24 for project locations)

Source: KOCO TV News, https://www.koco.com/article/oklahoma-long-term-plan-turnpike-system-unveiled/39173802, February 22, 2022

(Continues on Page No. 24)

Pilot Program aims to Reduce Deadly Wrong-Way Crashes in Oklahoma

By: Pete Knutson

(Continues from Page No. 13)

Radar and thermal sensors trigger them when a driver enters a wrong way zone. TAPCO says it's especially effective for drunk drivers.

"It's the most valuable benefit of LED enhancement, it's very attention-grabbing in a sense," he said.

The system includes an alert activation zone, a self-correction zone, and a confirmation zone.

If a wrong-way driver doesn't turn around, an alert will be sent out automatically, to nearby law enforcement and to message signs, warning other drivers.

TAPCO says the high-tech flashing warning signs alone, have reduced wrong-way driving incidents from 85 to 98% in other parts of the country.

"Can you really put a cost or price on the loss of life, these situations are a national crisis, they're a national issue?" Schmidling says.

After a few months of testing those high-tech flashing signs at those interchanges, the state plans to add the automatic notification portion of the system.

Then, if they work successfully, the plan is to come up with the money to install the wrong-way prevention technology at other problem areas across the state.

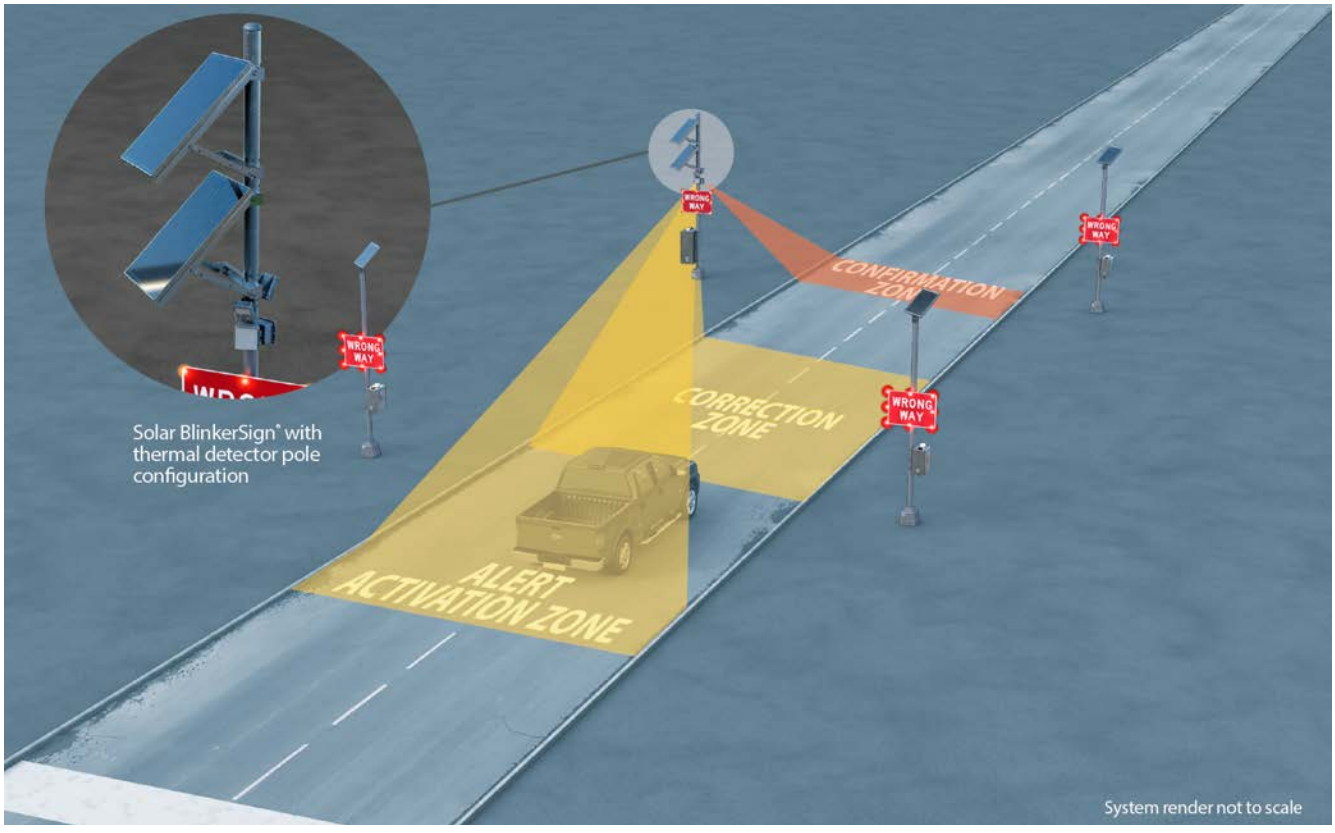
That's encouraging news for the Murrows, who've tried to turn their daughter's death into positive change, including those problems of wrong-way to drunk driving.

Still, their daughter will never celebrate her 21st birthday.

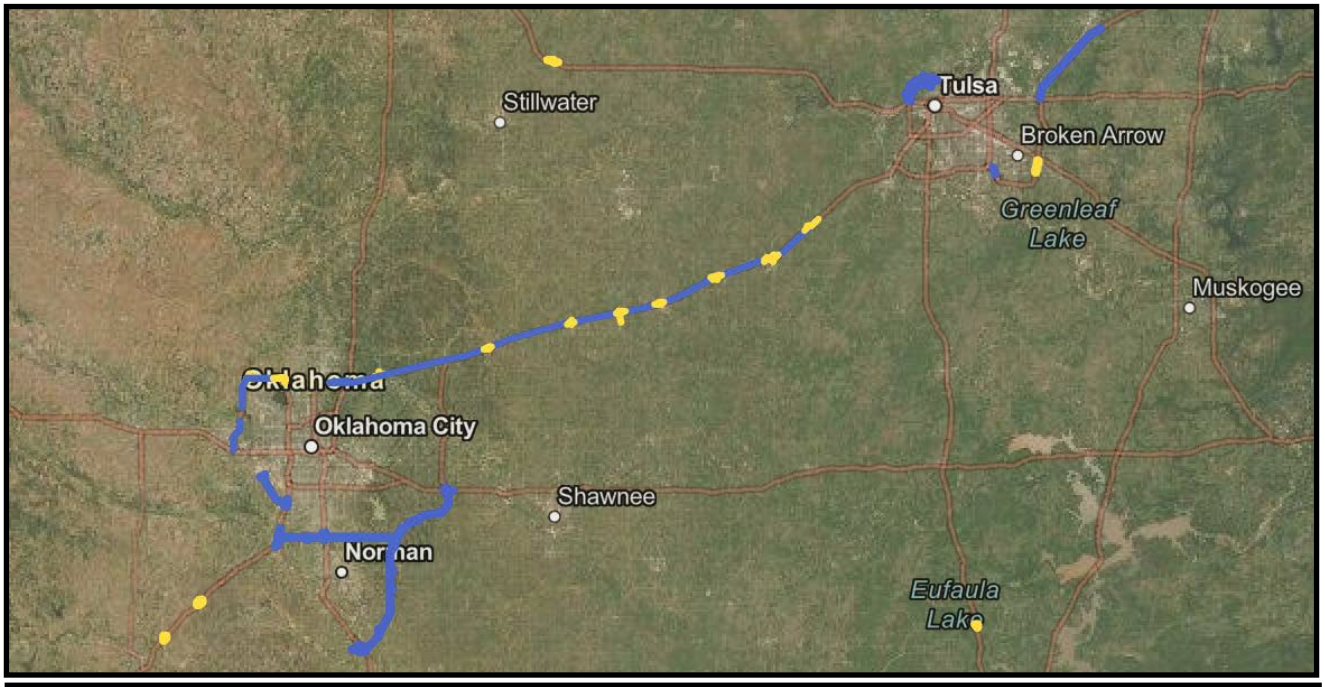
"She would have been very excited, yeah," Kristy Murrow says.

Instead, Marissa's friends remembered her birthday, with flowers, and a cake and with candles, singing at her grave.

Source: 2News Oklahoma, February 15, 2022



Oklahoma Leaders unveil Long-Range Plan for State's Turnpike System



Cyberattacks on Cars increased 225% in last three years

By Brian Blum

(Continues from Page No. 15)

"The rise in sophistication amongst vehicle hackers will continue to evolve as the industry continues to adopt advanced connectivity," Upstream cofounder and CEO Yoav Levy tells ISRAEL21c.

That means the car has a connection to the Internet, whether to stream music, access Waze or Google Maps or remember your morning Starbucks' preferences.

"V2X, the ability for a vehicle to not only detect but engage with the infrastructure, vehicles, and other assets around it, will create new vectors that will all be all too tempting for Black Hat actors," Levy says.

In 2018, there were 330 million connected cars, Upstream reports. That's due to jump to 775 million by 2023. A connected car produces some 25 GB of data an hour by 2025. For a fully autonomous vehicle, that number jumps to 500 GB an hour.

How hackers access vehicles

Hackers use eight key tricks to gain access to vehicles, Upstream reported.

1. Spoofing messages or data (that's where the message appears to be from someone you know but is really from a hacker).
2. Manipulating the vehicle's internal code and data.
3. Sending harmful messages through the car's communication and entertainment system.
4. Taking advantage of vulnerabilities in sensitive information access in some vehicles.
5. Denial-of-service (DoS) attacks that cause the car to malfunction.
6. Coopting privileged access.
7. Embedding viruses in communication media.
8. Sending messages containing malicious content, which can be received by a car as well as a phone or home computer.

While a hack that disables, say, a car's brakes while it's in operation is potentially life-threatening, simple theft is a more immediate and pressing problem.In September 2021, for example, thieves used sophisticated hacking hardware to steal 25 European-made luxury cars in London.

In Oakville, Canada, 124 vehicle thefts were reported in the first half of 2021 – this in a city with just 211,000 residents. Sixty-six percent of these thefts were via keyless entry tech, and some took place in broad daylight.

It's not just cars. Two major Israeli public transportation companies were hit by ransomware attacks recently and had their data leaked to the Darknet. In addition to the stolen data, the attack brought the companies' websites down.

It's not just cars. Two major Israeli public transportation companies were hit by ransomware attacks recently and had their data leaked to the Darknet. In addition to the stolen data, the attack brought the companies' websites down.

(Continues on Page No. 28)

Oklahoma Traffic Engineering Association

Please reply to: OTEA
c/o Angelo Lombardo
6901 Broomsedge Drive
Argyle, TX 76226
Phone No. (405) 406-9428

CLASS REGISTRATION FORM

Class Date: March 23-25, 2022

Location: Norman Central Library
103 West Acres Street
Norman, OK, 73069

Name: _____

Work Type: ___ Planning ___ Design ___ Construction ___ Operations ___ Maintenance

___ Inspection ___ Incident Management

Employer Type: ___ Contractor ___ Consultant ___ Government ___ Utility

Employee Identification Number: _____

Employer Name: _____

Mailing Address
Street / Box: _____

City: _____ State _____ Zip _____

E-Mail: _____

Telephone No.: _____

Years of Experience in Traffic Control: _____

Send this form with a Check for $500 (Government Employee) or $550 (Non Government Employee) to:

Oklahoma Traffic Engineering Association
c/o Angelo Lombardo
6901 Broomsedge Drive
Argyle, TX 76226

THANK YOU 2021 OTEA Fall Meeting Sponsors!

PLATINUM SPONSORS

mobotrex MOBILITY & TRAFFIC EXPERTS

SHUR-TITE

J&L UTILITY EXPLORATION

Midstate Traffic Control, Inc. of Oklahoma

Kimley»Horn Expect More. Experience Better.

Gades Sales Co. Inc.

olsson

CTC Consolidated Traffic Controls, Inc.

CENTERLINE

Pinkley Sales Company

TESCO CONTROLS, INC.

GOLD SPONSORS

COSTAR HD

TELEDYNE TECHNOLOGIES Everywhereyoulook

FLIR

LEE ENGINEERING

APEX ILLUMINATION GROUP

AM SIGNAL

SOUTHERN MANUFACTURING

Cyberattacks on Cars increased 225% in last three years

By Brian Blum

(Continues from Page No. 25)

How hackers target vehicles

During the Covid-19 pandemic and its accompanying chip shortage and supply chain issues, Black Hat scammers have been flooding the market with counterfeit parts and components, which can be a hazard to driver and vehicle safety.

Among the most audacious attacks reported by Upstream: In April 2021, the doors of a North American EV manufacturer's vehicle were hacked using a drone carrying a Wi-Fi dongle.

Even electric charge spots can be hacked, allowing Black Hat actors to remotely switch the chargers on and off, remove an owner's access, and lock or unlock the charging cable. Bad actors can steal a vehicle owner's identity through the charge spot, stop owners from charging their vehicles, and charge their own vehicles free of charge.

"Ultimately, most smart EV charging points [we] researched were vulnerable to attacks," Upstream reported.

The problem won't be going away anytime soon.

"Today, there are more lines of code in the connected car than other highly sophisticated machines, including the U.S. Air Force's F-35 Joint Strike Fighter, the Boeing 787 Dreamliner, or a NASA space shuttle," the report's authors warn.

"With today's revolution in automotive connectivity and the exponential growth in the number of connected vehicles on the road, it is imperative for the automotive industry to understand, predict, and combat rising cybersecurity threats," said Levy.

Source: Israel 21C, February 24, 2022

2021 OTEA Fall Meeting Finances

2021 OTEA FALL MEETING - FINANCIAL SUMMARY	
INCOME	**AMOUNT**
Registration - Checks	$7,620.00
Registration - PayPal	$18,150.00
Registration - P.O.s	$1,350.00
Registration - Outstanding (Escalanta)	$325.00
Sub-Total	**$27,445.00**
EXPENSES	
Hard Rock Hotel and Casino	$16,264.98
Registration Gifts (Ad Specialties)	$3,908.63
Door Prizes, Copies, Board Dinner	$3,355.89
Golf Prizes and Trophies	$674.30
PayPal Fees	$641.47
Sub-Total	**$24,845.27**
PROFIT / LOSS	**$2,599.73**

The Feds Plan to Reduce Roadway Deaths - With Smarter Road Design

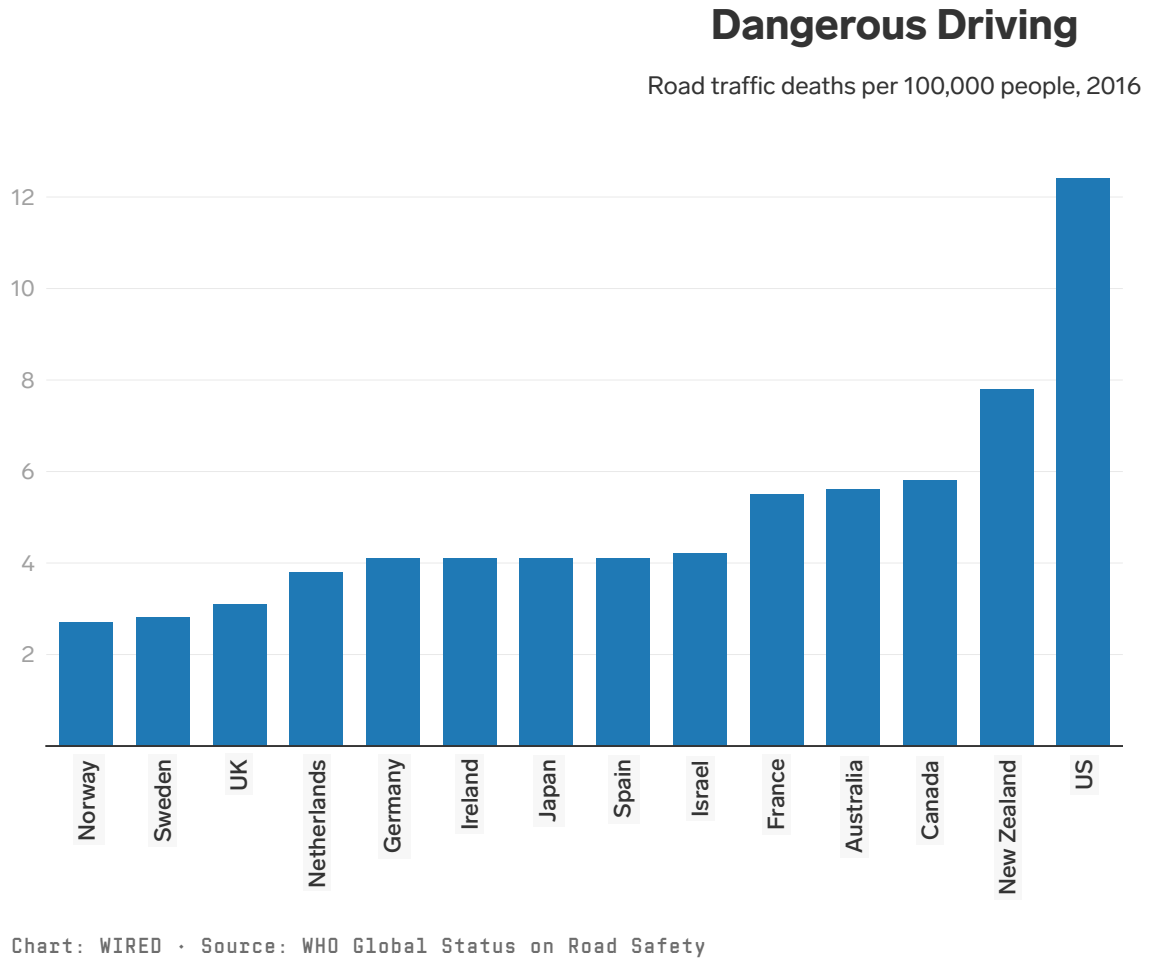
By: Aarian Marshall

STATISTICS HELP TELL stories, and one often touted by technologists and engineers and police officers and even the federal government told a tale. The statistic: 94 percent of US traffic crashes are the result of human error. The number felt right. It also appealed to a very American idea: that individuals are in charge of their own destinies. Rather than place the burden of road safety on systems—the way roads are built, the way cars are designed, the way streets are governed—it placed it on the driver, or the walker, or the cyclist.

The statistic was based on a misunderstanding of a 2015 report from the US Department of Transportation's National Highway Traffic Safety Administration, which is in charge of US road safety. The report studied crashes between 2005 and 2007 and determined that the driver was the "critical reason" behind the vast majority of crashes. But a driver's actions were typically the last in a long chain of events. The driver's fiddly movement of the wheel, in other words, was the final thing to go wrong—a process that started with, perhaps, the surveying of the highway, or the road design laid out on the desk of an engineer, or the policy crafted by lobbyists decades ago that made it impossible for anyone to get across town without a car.

Earlier this month, after pleas from researchers, advocates, and another Biden administration official, the US DOT nixed that 94 percent statistic from its website. And on Thursday, Transportation Secretary Pete Buttigieg began to tell a very different story about US road deaths. "Human fallibility should not lead to human fatalities," he said during a press conference in Washington, DC. His goal, he said, is zero road deaths.

(Continues on Page No. 32)



Invention addresses the Problems of running a Red Light at Traffic Intersections

Howell Li, principal research analyst, Joint Transportation Research Program, Lyles School of Civil Engineering, Purdue University

WEST LAFAYETTE, Ind. – An invention from Purdue University and the Indiana Department of Transportation that uses wireless communication devices could save lives at high-speed traffic signals.

Principal research analyst Howell Li and transportation research engineer Jijo Mathew of the Joint Transportation Research Program in Purdue University's Lyles School of Civil Engineering have collaborated with Tom Platte at the Indiana Department of Transportation to create technology that improves safety as vehicles approach a signalized intersection.

According to the Federal Highway Administration, 2 million crashes occur annually at intersections with traffic signals, leading to hundreds of thousands of injuries and more than 3,000 fatalities.

Mathew said a driver's decision to stop at a traffic signal or continue through it is made at the onset of the traffic signal turning yellow. He said a section of roadway upstream of an intersection, known as the dilemma zone, is an area where a vehicle can neither stop safely nor clear an intersection at its present speed.

"To reduce crashes, the key idea is to provide dilemma-zone protection," Mathew said. "One would think yellow time can be extended; however, drivers tend to adapt to this, resulting in lower probabilities of stopping. The state-of-the-practice for actuated intersections – intersections where timing is influenced by sensors – is to use green extensions, where the green time is extended for a certain period when a vehicle is present. Although this reduces the exposure of vehicles to the onset of yellow, this can go only for so long."

The Purdue-INDOT technology extends green time or indicates yellow early as necessary to ensure safety and efficiency to the next intersection on a 0.1-second basis. The system would consider the trajectory of each vehicle relative to a predetermined time of when the green would end. If there is enough time to spare, the green is extended until the vehicle clears the intersection. However, when there are other vehicles competing for green time on other movements, the system would indicate yellow early before the vehicle enters the dilemma zone for a safe stop.

Li said the innovation improves upon traditional technology that extends green-light signals in several ways.

"Infrastructure sensors have a fixed range, are expensive, may require intrusive installation on existing infrastructure, and need routine maintenance to ensure proper operation," Li said. "And most sensors do not detect vehicles continuously one mile away to adjust timing changes, such as when the

Howell Li (left), principal research analyst in the Joint Transportation Research Program, Lyles School of Civil Engineering, and Enrique Daniel Saldivar Carranza, a Ph.D. student in the Lyles School of Civil Engineering, work on technology that improves safety as vehicles approach a signalized intersection. (Purdue University photo/Vincent Walter)

(Continues on Page No. 32)

"Infrastructure School" offers Cities Crash Courses on Accessing Funds for Critical Projects

By: League of California Cities

The $1.2 trillion Infrastructure Investment and Jobs Act - also known as the Bipartisan Infrastructure Law - ranks among the nation's largest infrastructure investment packages ever to be signed into law. Passed by Congress last November, the package includes an estimated $45.5 billion in funding for the state of California. Unlike the American Rescue Plan Act, the Infrastructure Investment and Jobs Act includes competitive and noncompetitive funding.

City leaders should begin preparing now to maximize the federal funding in their communities.

To help cities navigate these new funding opportunities, the White House has released several supplemental resources, including an upcoming "Infrastructure School" webinar series. The webinars build on the recently released Bipartisan Infrastructure Law guidebook, which contains a funding roadmap, individual program details, upcoming key dates and date ranges for key activities, partner information, and other explanatory documents for upcoming 2022 and 2023 programs.

Additionally, the guidebook groups funding programs by issue area. Each chapter contains a cover note explaining how to prepare to apply for and potentially receive each subset of funding. The memos also identify additional resources that cities can utilize as the federal government prepares to distribute this new funding.
The guidebook is the best available resource for cities and will be updated at Build.gov as more information becomes available.

Other proactive steps

Cities can take several proactive steps to ensure maximum competitiveness, which the White House laid out on page six of a related fact sheet. In addition to those steps, cities should refresh their stories about the ways federal aid can support their needs, projects, and opportunities. When appropriate, city officials should identify potential project partners and any revenues available to match federal dollars.

It is critical that all cities, particularly, those with limited experience receiving federal funds, maintain proper records for federal audits and state oversight actions.

For more information about the Infrastructure Investment and Jobs Act or additional tools for recovery, visit the Cal Cities Guide to Local Recovery portal.

Source: League of California Cities, Feb 16, 2022

Webinar Schedule

The "Infrastructure School" series is divided into twelve unique sessions, each one corresponding to a different funding area. Registration links for the February sessions are below. Registration links for the March sessions are expected later this month.

Ports and Waterways: Tuesday, Feb. 15 at 1:00 p.m.
Airports: Thursday, Feb. 17 at 1:00 p.m.
Electric Vehicles: Tuesday, Feb. 22 at 1:00 p.m.
Public Transportation: Thursday, Feb. 24 at 1:00 p.m.
Railroads: Tuesday, Feb. 28 at 1:00 p.m.
Roads, Bridges, and Major Projects: Thursday, March 3 at 1:00 p.m.
Safety: Tuesday, March 8 at 1:00 p.m.
Clean Energy and Power: Thursday, March 10 at 1:00 p.m.
Water: Tuesday, March 15 at 1:00 p.m.
Resilience: Thursday, March 17 at 1:00 p.m.
Environmental Remediation: Tuesday, March 22 at 1:00 p.m.
Broadband: Thursday, March 24 at 1:00 p.m.

The Feds Plan to Reduce Roadway Deaths - With Smarter Road Design

By: Aarian Marshall

(Continues from Page No. 29)

Buttigieg was there to introduce what the DOT calls the "National Roadway Safety Strategy." It is a set of actions and recommendations that could affect everything from speed limits to street design to the technology required in cars. If all goes to plan (and that's a big "if") the strategy could unpin the assumptions in the country's approach to traffic safety—and lead to fewer deaths on US roads.

"That's a big paradigm shift, to recognize people are going to make mistakes and that we aren't going to berate and enforce our way to perfect behavior," says Ken McLeod, policy director for the League of American Bicyclists, an advocacy group.

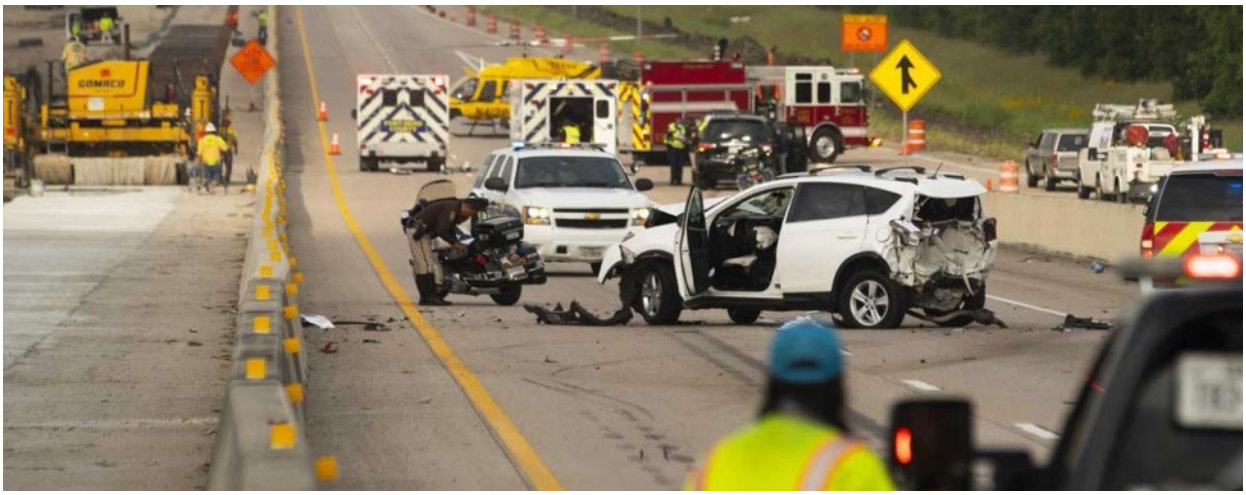
Deaths on US roads have been declining since the 1970s, thanks to advances in vehicle tech and roadway design. But the trend reversed during the pandemic. Americans drove fewer miles in 2020, but deaths per mile traveled jumped by 23 percent, and 38,680 died overall, the most since 2007. In the first half of 2021, the DOT estimates that fatalities jumped again, to 20,160, from 17,020 in the first half of 2020. Black, American Indian, and rural Americans have died at disproportionate rates. So have pedestrians and cyclists. Compared with the rest of the world, the picture looks even darker: After accounting for population size, more people die on US roads than in any comparable high-income country.

Now, the US DOT is proposing to nix this ugly bit of exceptionalism by taking a "safe system" approach to roads: a Swedish-born principle that roads should be designed and managed to allow people to screw up without dying or maiming anyone. "We're catching up with the rest of the world," says David Harkey, president of the Insurance Institute for Highway Safety and a traffic safety researcher.

The strategy proposes spending billions from the recently passed infrastructure bill on road safety programs, including programs dedicated to reducing cyclist and pedestrian deaths, and ones researching how to make trucks safer. It suggests NHTSA require automakers to add systems to all of their vehicles that will automatically brake before a crash with a pedestrian. The systems, already on some cars, might require automakers to add more cameras, radar systems, or other sensors to their vehicles. The strategy also considers requiring automakers to add tech to prevent people from driving drunk. Almost a third of crashes involve an intoxicated person. The strategy commits to updating an important road design manual that, in general, controls how local governments arrange their streets, though it stops short of tearing the manual up and writing a new safety-focused one, which advocates have sought.

The strategy also puts forward a new approach to speeding, which killed nearly 10,500 Americans in 2020. It proposes revising the department's guidance on setting speed limits-something that's technically left up to states. Instead of setting the limit according to how drivers "naturally" move on an open road, the department will help local engineers consider road design, layout, and people other than drivers. It could, in effect, lead some local officials to lower speed limits on certain roads to make them safer.

Source: Wired, https://www.wired.com/story/feds-plan-reduce-roadway-deaths-smarter-road-design/, January 27,2022



Invention addresses the Problems of running a Red Light at Traffic Intersections

By: Steve Martin, Purdue University Research Foundation

(Continues from Page No. 30)

onset of yellow occurs."

A YouTube video featuring Li explaining how technology works is available. (https://www.youtube.com/watch?v=oFKhBoQ8zg0)

The technology uses wireless communication devices placed at traffic signals and in vehicles, and specialized control logic at the signal controller to bring it all together. Li believes barriers for his technology can be overcome.

"Vehicles are already rolling off the assembly lines with built-in communication devices in the form of cellular. High-bandwidth, low-latency technologies such as 5G and beyond are being more widely adopted around the country and the world," Li said. "Compelling use cases such as reducing yellow- and red-light incursions for heavy vehicles and the safety data to support the findings will accelerate adoption by transportation agencies, I believe."

The technology was tested during brief sessions over a period of a week at County Road 500 S. at U.S. Highway 231 in Tippecanoe County, Indiana. The remainder of the benefit estimation was simulated.

Platte said the tests proved the technology has the potential to reduce heavy vehicle red-light incursions by a significant amount.

"During my time working at the Indiana Department of Transportation, I have only been aware of conceptual-use cases involving onboard vehicle communication technology integrating with live traffic signal control," he said. "Our new technology moves this integration beyond the merely conceptual. This work provides an implemented real-world use case that addresses an important safety concern, among other applications.

"As a signal systems field engineer, I work with live traffic daily. Crash statistics are more than just numbers for me. I have encountered situations where this technology could have potentially saved the lives of people in my community. I look forward to robust implementation of our technology and similar technologies in the automotive and traffic-signal infrastructure industries."

The technology was disclosed to the Purdue Research Foundation Office of Technology Commercialization, which has applied for a patent from the U.S. Patent and Trademark Office to protect the intellectual property. For information on licensing opportunities, contact Matt Halladay of OTC at mrhalladay@prf.org about 2020-LI-68904.

"We are interested in working with more vehicle and truck manufacturers and government partners at safety-critical, high-impact corridors that will bring tremendous safety benefit to the motoring public," Li said.

Source: Purdue University Research Foundation, February 16, 2022

Member News

Esther Shaw-Smith joins Traffic Engineering Consultants, Inc.

Esther Shaw-Smith has joined Oklahoma City's Traffic Engineering Consultants, Inc. as one of its new Principal Partners.

Esther is a graduate of the University of Oklahoma and has worked in the private consultant sector throughout her career. She started her career working for Cobb Engineering and later joined Lee Engineering as the Manager of their new office in Oklahoma City. She made the move to Traffic Engineering Consultants, Inc in February of this year.

Esther has served in the OTEA Board of Directors as an Officer, Vice President, President and Past President. She has also served in the MOVITE District Board as a State Representative, Officer, Secretary, Treasurer and Vice President, and is currently serving as the District's President.

Good luck to Esther on her latest professional move.

TEC
A CLEAR DIRECTION

Angelo and Annie Lombardo Welcome their 4th Grandchild

Angelo and Annie Lombardo are the proud grandparents of grandchild No. 4 - Colin Michael Harvey, first child of their third daughter Maria and husband Matthew Harvey. Colin was born on January 18, 2022 in Milwaukee, Wisconsin. He weighed 9 lbs and 8 oz and measured 22 inches in length.

Congratulations to the parents and grandparents.

Jami Short named City of Norman Traffic Engineer

Jami is on the move again by recently becoming the new Traffic Engineer for the City of Norman. She replaces David Riesland who was promoted to Transportation Engineer after Angelo Lombardo's retirement.

Congratulations to Jami on her new job and good luck to her as she begins this new phase of her professional career.

NORMAN

2021 Fall Meeting in Pictures

Oklahoma Traffic Engineering
Association
6901 Broomsedge Drive
Argyle, TX 76226
(405) 406-9428
E-Mail OTEField@sbcglobal.net

Presorted Standard
U.S. Postage Paid
Norman, OK
Permit Number 158

Return Service Requested

OTEField - Winter 2021 -2022 Edition

Spread the Word – Join ITE

OKLAHOMA TRAFFIC ENGINEERING ASSOCIATION EST. 1966

OK ite

OKLAHOMA SECTION