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# ENHANCING VEHICLE TECHNOLOGY TO PREVENT DRUNK DRIVING

## HEARING

BEFORE THE

SUBCOMMITTEE ON CONSUMER PROTECTION AND COMMERCE

OF THE

COMMITTEE ON ENERGY AND COMMERCE
HOUSE OF REPRESENTATIVES

ONE HUNDRED SIXTEENTH CONGRESS

FIRST SESSION

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# C O N T E N T S


| | Page |
|---|---|
| Hon. Jan Schakowsky, a Representative in Congress from the State of Illinois, opening statement | 1 |
| Prepared statement | 2 |
| Hon. Cathy McMorris Rodgers, a Representative in Congress from the State of Washington, opening statement | 3 |
| Prepared statement | 5 |
| Hon. Debbie Dingell, a Representative in Congress from the State of Michigan, opening statement | 6 |
| Hon. Robert E. Latta, a Representative in Congress from the State of Ohio, opening statement | 6 |
| Prepared statement | 7 |
| Hon. Frank Pallone, Jr., a Representative in Congress from the State of New Jersey, prepared statement | 82 |
| Hon. Greg Walden, a Representative in Congress from the State of Oregon, prepared statement | 83 |


WITNESSES


| | |
|---|---|
| Helen Witty, National President, Mothers Against Drunk Driving | 8 |
| Prepared statement | 11 |
| Robert Strassburger, President and Chief Executive Officer, Automotive Coalition for Traffic Safety | 18 |
| Prepared statement | 20 |
| Joan Claybrook, Board Member, Advocates for Highway and Auto Safety, and Former Administrator, National Highway Traffic Safety Administration | 32 |
| Prepared statement | 34 |
| Additional material submitted for the record | 55 |
| Answers to submitted questions | 95 |
| David Kelly, Executive Director, Coalition of Ignition Interlock Manufacturers | 61 |
| Prepared statement | 63 |
| Answers to submitted questions | 97 |


SUBMITTED MATERIAL


| | |
|---|---|
| Report, "Getting to Zero Alcohol-Impaired Driving Fatalities: A Comprehensive Approach to a Persistent Problem (2018)," National Academies of Science, Engineering, and Medicine, submitted by Mrs. Dingell [1] | |
| Letter of March 13 2019, from Coalition for Future Mobility to Mr. Pallone, et al., submitted by Ms. Schakowsky | 85 |
| Letter of March 14, 2019, from Gary Shapiro, President and Chief Executive Officer, Consumer Technology Association, to Mr. Pallone, et al., submitted by Ms. Schakowsky | 89 |


[1] The report has been retained in committee files and also is available at https://docs.house.gov/meetings/IF/IF17/20190314/109109/HHRG-116-IF17-20190314-SD004.pdf.

Page

Letter of March 14, 2019, from Robbie Diamond, President and Chief Executive Officer, Securing America's Future Energy, to Mr. Pallone, et al., submitted by Ms. Schakowsky ..... 91

Letter of March 14, 2019, from John D. Bodnovich, Executive Director, American Beverage Licensees, to Ms. Schakowsky and Mrs. Rodgers, submitted by Ms. Schakowsky ..... 93

# ENHANCING VEHICLE TECHNOLOGY TO PREVENT DRUNK DRIVING

**THURSDAY, MARCH 14, 2019**

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON CONSUMER PROTECTION AND COMMERCE,
COMMITTEE ON ENERGY AND COMMERCE,
*Washington, DC.*

The subcommittee met, pursuant to call, at 10:00 a.m., in the John D. Dingell Room 2123, Rayburn House Office Building, Hon. Jan Schakowsky (chairwoman of the subcommittee) presiding.

Members present: Representatives Schakowsky, Castor, O'Halleran, Cárdenas, Soto, Rush, Matsui, McNerney, Dingell, Rodgers (subcommittee ranking member), Burgess, Latta, Guthrie, Bucshon, Hudson, and Carter.

Staff present: Sharon Davis, Chief Clerk; Evan Gilbert, Press Assistant; Lisa Goldman, Counsel; Waverly Gordon, Deputy Chief Counsel; Alex Hoehn-Saric, Chief Counsel, Communications and Technology; Zach Kahan, Outreach and Member Service Coordinator; Kaitlyn Peel, Digital Director; Chloe Rodriguez, Policy Analyst; Andrew Souvall, Director of Communications, Outreach, and Member Services; Mike Bloomquist, Minority Staff Director; Jordan Davis, Minority Senior Advisor; Melissa Froelich, Minority Chief Counsel, Consumer Protection and Commerce; Peter Kielty, Minority General Counsel; Bijan Koohmaraie, Minority Counsel, Consumer Protection and Commerce; Ryan Long, Minority Deputy Staff Director; and Brannon Rains, Minority Staff Assistant.

Ms. SCHAKOWSKY. The Subcommittee on Consumer Protection and Commerce will now come to order.

I want to thank everybody for coming on this going-away day. My plan is that we will get as many opening statements as we can before votes, and then, hopefully, all of you will come back to talk to our witnesses.

So, I recognize myself for 5 minutes.

## OPENING STATEMENT OF HON. JAN SCHAKOWSKY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS

As the Consumer Protection Subcommittee, we are committed to ensuring the safety of the American people. We have addressed a number of auto safety issues over the years, holding hearings on the Takata airbag defects and the GM ignition switch defect. We had a hearing last year on drugged driving, which has been on the rise in recent years. But we haven't really addressed the No. 1 cause of death on America's roads, drunk driving.

More than 10,000 deaths, about 30 percent of all fatal crashes, are caused by drunk driving each year. That translates into almost 30 people dying in drunk-driving crashes every day or one person every 4 minutes in 2017. That is when the data is from. And that is not counting the number of people who are seriously injured in drunk-driving crashes.

The National Highway Transportation Safety Administration, NHTSA, conducted a study in 2016 that found that, quote, "Alcohol was the largest contributor to crashes." Unquote. We all know drunk driving is a problem, but whether it is because they are too intoxicated to make reasonable judgments or they inaccurately estimate their level of intoxication, people are still making the choice to drive drunk.

So, today we are exploring some technologies that make it harder for people to make the wrong decision. Currently, ignition interlocks are available for installation in cars on the road. These are devices that can detect levels of alcohol in a person's system, and if above the legal limit, will prevent a car from starting. Generally, this involves breathing into a tube and waiting for an analysis to be completed, which may take a little time. This, too, has been effective in preventing individuals convicted of drunk driving from doing so again, as long as the device is in his or her car.

All States have some form of ignition interlock laws, some making it an option/condition after conviction, and some requiring them for repeat offenders, and some requiring them for all offenders. Often, people who have been convicted of driving under the influence of alcohol will still drive, even if their license is suspended or taken away. They still need to drive to get to work or run necessary errands. Interlock devices allow them to drive when they need to, but stop them from putting themselves and others in danger by preventing them from driving drunk.

So, I look forward to hearing today whether expanded use of interlock devices can help lower the number of drunk-driving crashes. Today's interlock devices, however, are not enough. They are too intrusive for general use, and that is why NHTSA has been working with the auto industry to develop more integrated technologies, known as Driver Alcohol Detection Systems for Safety, or DADSS, that can be deployed even more expansively.

I know my friend and colleague, Debbie Dingell, will be recognized, but it should be noted that several of her constituents recently died in a tragic accident because of drunk driving. Debbie has introduced legislation aimed at curbing drunk driving. And so I thank her for her efforts to make our roads safer, and I stand with you as an ally in your fight.

NHTSA can and should be pressing automakers to develop and deploy this technology faster, these different technologies faster, and let's stop wasting time and start to take meaningful steps to turn back the tide on these tragedies.

So, I want to thank all our witnesses for coming today.

[The prepared statement of Ms. Schakowsky follows:]

## PREPARED STATEMENT OF HON. JAN SCHAKOWSKY

As the Consumer Protection Subcommittee, we are committed to ensuring the safety of the American people. We have addressed a number of auto safety issues

over the years—holding hearings on the Takata airbag defects and the GM ignition switch defect. We had a hearing last year on drugged driving, which has been on the rise in recent years.

We have not really addressed the number one cause of death on America's roadways—drunk driving. More than 10,000 deaths—about 30 percent of all fatal crashes—are caused by drunk driving each year. That translates to almost 30 people dying in drunk-driving crashes every day or one person every 48 minutes in 2017. And that's not counting the number of people who are seriously injured in drunk-driving crashes.

The National Highway Transportation Safety Administration (NHSTA) conducted a study in 2016 that found "alcohol was the largest contributor to crash risk."

We all know drunk driving is a problem. But whether it's because they are too intoxicated to make a reasonable decision, or they inaccurately estimate their level intoxication, people are still making the choice to drive drunk.

So today we are exploring some technologies that make it harder for people to make the wrong decision.

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All States have ignition interlock laws-some making it an optional condition after conviction, some requiring them for repeat offenders, and some requiring them for all offenders.

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NHTSA can and should be pressing automakers to develop and deploy this technology faster. Let's stop wasting time and start to take meaningful steps to turn back the tide on these tragedies.

Thank you. I now yield 5 minutes to the ranking member of the subcommittee, Cathy McMorris Rodgers.

Ms. SCHAKOWSKY. And I yield 5 minutes to the ranking member of the subcommittee, Cathy McMorris Rodgers.

## OPENING STATEMENT OF HON. CATHY McMORRIS RODGERS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON

Mrs. RODGERS. Thank you, Madam Chair.

Good morning, everyone, and welcome to the Consumer Protection and Commerce Subcommittee hearing on enhancing vehicle technology to prevent drunk driving.

"Drive sober or get pulled over" is a phrase we all remember hearing in the classroom or on television, and it remains just as important a message today as it ever was. Drunk driving is a significant public health concern that tragically cuts life short for so many, not just those who make the reckless decision to get behind the wheel after consuming alcohol, but our family and friends on the road in the wrong place at the wrong time.

Although alcohol-impaired driving has decreased by about 30 percent over the last three decades, it remains a serious and fatal risk on our roadways, claiming almost 11,000 lives each year. The status is not acceptable. We can, and we must, do better.

Drug-impaired driving is also on the rise. Drug use and abuse have increasingly become central social issues. On opioids, last Congress we passed a comprehensive bipartisan package to help combat the epidemic, expand access to treatment, and protect our communities. But opioids aren't the only drug making our roads less safe. So is marijuana. In fact, marijuana is the most common drug found in fatally injured drivers. It increases drowsiness and decreases reaction speed, both of which severely limit a driver's ability to operate a vehicle safely.

In 2012, my home State of Washington legalized marijuana, and Washingtonians have seen decreases in roadway safety since then. In 2017, the Northwest High Intensity Drug Trafficking Area conducted a report of the effects of marijuana. The report produced some pretty disturbing results. One in five 10th-graders, one in four 12th-graders reported riding with a driver who had been using marijuana. One in six 12th-graders admitted to driving a vehicle within 3 hours of consuming marijuana. The percentage of marijuana-positive drivers has more than doubled from 7.8 percent to 18.9 percent, and fatal crashes involving marijuana have spiked to almost 13 percent from 7.8 percent prior to legalization. The increase in recreational use of marijuana poses a serious threat to roadway safety.

We must learn from the lessons we have seen in my home State and make sure we are focusing on addressing drug-impaired driving and alcohol-impaired driving. On this committee, it is our job to explore how technology and innovation can improve people's lives, even save their lives. For example, ride-sharing technology platforms have given people better and more options to get home safely. By providing an easy and user-friendly option, more people are opting for ride sharing rather than getting behind the wheel after drinking or taking drugs. The subcommittee has been working on these issues for years, highlighting the sharing economy at a disruptor series in 2015.

We should not lose sight of the fact that we lose about 40,000 Americans on our roads every year. Ninety-four percent of car crashes are caused by human error. Whether it be driving while tired, distracted, or after drinking or taking drugs, human error causes crashes. Self-driving cars offer a technology-based solution that will save lives if the Government regulations are updated from their 1970s approach over brake pedals and steering wheels.

I joined Republican Leader Walden and Representative Latta on a letter to Chairman Pallone yesterday asking that we continue our work in a bipartisan manner again this Congress.

I commend Chair Schakowsky for her leadership on this important issue and look forward to working with you.

I want to thank our distinguished panel for your willingness to engage in this discussion today, and I would further welcome discussions with leaders who offer other technology-based solutions to protect Americans.

I yield back.

[The prepared statement of Mrs. Rodgers follows:]

PREPARED STATEMENT OF HON. CATHY MCMORRIS RODGERS

Good morning and welcome to the Consumer Protection and Commerce Subcommittee hearing on Enhancing Vehicle Technology to Prevent Drunk Driving. "Drive sober or get pulled over" is a phrase we all remember hearing in the classroom or on television and it remains just as important a message today as it ever has.

Drunk driving is a significant public health concern that tragically cuts life short for so many—not just those that make the reckless decision to get behind the wheel after consuming alcohol but our family and friends on the road in the wrong place at the wrong time. Although alcohol impaired driving has decreased by about 30 percent over the last three decades it remains a serious and fatal risk on our roadways claiming almost 11,000 lives each year. The status quo is not acceptable. We can, and we must do better.

Drug-impaired driving is also on the rise. Drug use and abuse have increasingly become central social issues. On opioids, last Congress we passed a comprehensive bipartisan package to help combat the epidemic, expand access to treatment, and protect our communities. But opioids aren't the only drug making our roads less safe—so is marijuana. In fact, marijuana is the most common drug found in fatally injured drivers. It increases drowsiness and decreases reaction speed—both of which severely limit a driver's ability to operate a vehicle safely.

In 2012, my home State of Washington legalized marijuana and Washingtonians have seen decreases in roadway safety since then. In 2017, the Northwest High Intensity Drug Trafficking Area conducted a report on the effects of marijuana. The report produced some pretty disturbing results. One in five 10th-graders and one in four 12th-graders reported riding with a driver who had been using marijuana. One in six 12th-graders admitted to driving a vehicle within 3 hours of consuming marijuana.

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We should not lose sight of the fact that we lose almost 40,000 Americans on our roads every year. 94 percent of car crashes are caused by human error. Whether it be driving while tired, distracted, or, after drinking or taking drugs, human error causes crashes. Self-driving cars offer a technology-based solution that will save lives if the Government regulations are updated from their 1970s approach over brake pedals and steering wheels.

I joined Republican Leader Walden and Representative Latta on a letter to Chairman Pallone yesterday asking that we continue work on the issue in a bipartisan manner again this Congress.

I commend Chair Schakowsky for her leadership on this important issue and look forward to working with you. I want to thank our distinguished panel for your willingness to engage in this discussion today. I would welcome further discussions with leaders who offer other technology-based solutions to protect Americans.

I yield back.

Ms. SCHAKOWSKY. The gentlewoman yields back.

The votes have been called, and it looks like we have one to two votes, we think about 30 minutes. So, in fact, we are going to recess. And I apologize to our witnesses, but we will be back soon.

Thank you.

[Recess.]

Ms. SCHAKOWSKY. I will call the subcommittee back to order, and yield for an opening statement. In the absence of the chairman of the full committee, I am happy to yield to Congresswoman Dingell.

## OPENING STATEMENT OF HON. DEBBIE DINGELL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN

Mrs. DINGELL. Thank you, Chairman Schakowsky.

And I want to really give you a sincere and heartfelt thank you for holding this important hearing today. As both of you spoke about before votes, drunk driving brings pain to families and communities across this country. Our community in Dearborn and in Michigan felt it only eight weeks ago. In January, the Abbas family, Issam, Rima, Ali, Isabella, and Giselle, were driving back from a family vacation in Florida when their car was struck head-on by a drunk driver. No one survived, and everybody in our community felt it. They were active, integral members of our community. But what is sad is that this story has been repeated for years over and over again. And Congress needs to step up and do something about it.

Their deaths, and the thousands just like them each year, are avoidable and preventable. The technology exists to save lives. A little girl at the funeral came up to me—she was a classmate—and said, "There is technology. Why are you not using it? Why won't Congress act? My friend should be here today." That statement is my heart.

So, my question to each Member, witness, and all the public watching today is simple: Why aren't we using it? We need to explore every possible solution, including giving law enforcement the resources that they need to get drunk driving off the roads. Institute mandatory first-offender interlock laws across the country, and get the DADSS technology in cars as fast as we can.

Nothing is going to bring back the Abbas family or the thousands—there are more stories in the last week. I mean, we should stop hearing these stories. Their lives are too important to forget. We need to make sure that the family that I know from my community, the Abbas family's death is not in vain, for we need to make all of these deaths an example of why we must act now. We must address this challenge.

Thank you, Madam Chairman, and I yield back the balance of my time.

Ms. SCHAKOWSKY. The gentlelady yields back. I now recognize Mr. Latta for 5 minutes for an opening statement.

## OPENING STATEMENT OF HON. ROBERT E. LATTA, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OHIO

Mr. LATTA. Well, thank you, Madam Chair, and thank you very much for holding this very important hearing today.

And I thank our witnesses for being with us today.

We have the opportunity to discuss how we can utilize different technologies to address and prevent drunk and drugged driving. Over 10,000 people lost their lives in 2017 in alcohol-impaired driving crashes. We have also seen a significant increase in the number

of American drivers killed in vehicle crashes in which drugs were detected.

Ninety-four percent of overall vehicle accidents are attributable to human errors or decisions, and we have seen a significant increase in the number of Americans killed in vehicle crashes in which drugs were detected. The statistics are staggering and show that it is imperative that the public and private sectors work together on a solution to prevent more tragedies.

Amid the devastating opioid crisis, and as more States legalize the use of marijuana, tackling this problem is now more important than ever. According to the Governors Highway Safety Association, in 2016, the number of drivers who were fatally injured in accidents with drugs in their system surpassed the number of those with alcohol in their system for the very first time.

That is why in the last Congress I recognized the importance of promoting and fostering innovation in self-driving vehicle technology. As chair of this subcommittee in the last Congress, I introduced the bipartisan SELF DRIVE Act, which would have clarified the Federal and State roles in regulating self-driving vehicles, ensure consumer safety, reduce traffic-related fatalities and injuries, and improve mobility for individuals with disabilities.

U.S. companies are investing major resources in the research and development of this technology, and the SELF DRIVE Act would have removed outdated regulations that were created when self-driving vehicles were considered science fiction. Since this legislation passed unanimously both in committee and on the floor, it is my hope that we can make this a priority again in this Congress.

We have an opportunity through technology to make investments needed in self-driving technology as one step to ending senseless deaths on our roads. Until that day comes, we all need to do all we can to raise awareness of the dangers of impaired driving.

And again, I want to thank all the members on this committee and all of our staff on both sides of the aisle for all the hard work that they did.

With that, Madam Chair, I yield back the balance of my time. Thank you very much.

[The prepared statement of Mr. Latta follows:]

## PREPARED STATEMENT OF HON. ROBERT E. LATTA

Good morning, I would like to thank our Chair holding this important hearing, and I thank our witnesses for being here. Today, we have the opportunity to discuss how we can utilize different technologies to address and prevent drunk and drugged driving.

Over 10,000 people lost their lives in 2017 in alcohol-impaired driving crashes. We have also seen a significant increase in the number of American drivers killed in vehicle crashes in which drugs were detected. Ninety-four percent of overall vehicle accidents are attributable to human errors or decisions. The statistics are staggering and show that it is imperative that the public and private sectors work together on solutions to prevent more tragedies.

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We have an opportunity through technology to make investments needed in self-driving technology as one step to ending senseless deaths on our roads. Until that day comes, we need to do all we can to raise awareness of the dangers of impaired driving. Again, I want to thank our Members and staff on both sides of the aisle for their bipartisan legislation.

Thank you again, and I yield back my time.

Ms. SCHAKOWSKY. The gentleman yields back.

So, I would now like to introduce our witnesses for—oh, the Chair would like to remind Members that, pursuant to committee rules, all Members' written opening statements shall be made part of the record.

And now, I would like to introduce the witnesses. Ms. Helen Witty is the national president of Mothers Against Drunk Driving. Dr. Robert Strassburger oversees the DADSS program that I am really anxious to hear more about. And the Honorable Joan Claybrook, board member of Advocates for Highway and Auto Safety and former Administrator of the National Highway Traffic Safety Administration, NHTSA, welcome. And Dr. David Kelly, the executive director of the Coalition of Ignition Interlocks Manufacturers.

We want to thank all of our witnesses for joining us today, and we look forward to your testimony.

At this time, the Chair will now recognize each witness for 5 minutes. I think everybody here has testified. You know that you have 5 minutes, and there is a light that will go off when you have 1 minute left. So, I hope that you will consider wrapping it up.

So, I am going to first begin, I want to begin. Ms. Witty, you are recognized now for 5 minutes.

Put your microphone on. There you go.

## STATEMENTS OF HELEN WITTY, NATIONAL PRESIDENT, MOTHERS AGAINST DRUNK DRIVING; ROBERT STRASSBURGER, PRESIDENT AND CHIEF EXECUTIVE OFFICER, AUTOMOTIVE COALITION FOR TRAFFIC SAFETY; JOAN CLAYBROOK, BOARD MEMBER, ADVOCATES FOR HIGHWAY AND AUTO SAFETY, AND FORMER ADMINISTRATOR, NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION; AND DAVID KELLY, EXECUTIVE DIRECTOR, COALITION OF IGNITION INTERLOCK MANUFACTURERS

### STATEMENT OF HELEN WITTY

Ms. WITTY. Thank you, Chairwoman Schakowsky, Ranking Member McMorris Rodgers, and other distinguished members of the committee, for holding this hearing and for inviting me to testify.

I am here today on behalf of Mothers Against Drunk Driving and representing the millions of victims of drunk-driving crashes.

I would also like to thank Representative Debbie Dingell for her leadership and action following the tragic death of a family from

Dearborn. The Abbas family, Issam, Rima, Ali, Isabella, and Giselle, were killed by a wrong-way driver, a drunk driver.

Like the Abbas family, I have a story. I am here because my 16-year-old daughter is not. One day on a bright, sunny June afternoon, she went rollerblading on a well-known route and didn't come home. Until that day, my husband and I had the dream family, the one we had always dreamed of, two children, a girl and a boy. They were named for us. So, we had the perfect names, John and John and Helen and Helen Marie. It was Helen Marie because I didn't want to be "Big Helen" or "Old Helen".

And she was my first born. So, she put me through my mom paces, and she was so excited when she learned that her brother John was due to arrive. But, yet, when she learned that he was there to stay and she had to learn to share, she had to get used to that, and she did. But the most important thing was she learned to love him deeply. They were not perfect children, perfect names maybe, but not perfect children. They were well-adjusted and that what we had prayed for.

An alcohol- and marijuana-impaired teen driver ended our dream. Helen Marie was rollerblading on a bike path when she looked up and saw a car on that bike path spinning toward her. There was nothing she could do but die very suddenly and very violently.

I can't tell you what the days and months and years were like after that. It was preparing for my 16-year-old daughter's funeral. It was receiving a call asking for body parts. It was packing up her things that still held her essence. It was standing in a criminal courtroom.

But I can tell you that MADD was there. They were there to show me I would not die of the grief. They were there to give me hope, and they also gave me a platform on which I could learn and, then, fight from—first, I could only lean on it—toward a day when there's no more victims of this awful crime. And the technology is there. That is the frustrating part.

H.M.'s life ended, but mine did not, and that is why I am here. MADD's campaign to eliminate drunk driving is our top priority, and the testimony I submitted contains detailed information about two campaign components: law enforcement and ignition interlocks.

Today, I would like to specifically talk about advanced vehicle technologies which could one day prevent a drunk driver from operating a vehicle. The idea for such technology was born in 2006 at a MADD Technology Symposium in New Mexico. The concept was to integrate into the vehicle a passive alcohol sensor to unobtrusively detect a driver's BAC. The concept became a reality over a decade ago and is known as DADSS. MADD worked diligently to get this program started and to get the Government funding to advance this program.

I represent drunk-driving victims who want this killing to end now. Our goal is to get this technology into vehicles for consumers to purchase as soon as possible. Therefore, I issue a challenge to the auto industry, including OEM suppliers and the Government, to make DADSS commercially available and for NHTSA to begin a rulemaking on DADSS as soon as possible.

To aid in transferring DADSS to the auto industry for commercialization, a large fleet test would help expedite the technology. In 1982, the General Services Administration ordered 5,000 cars with driver-side airbags. This stimulated the market and resulted in widespread acceptance and use. MADD calls for a similar model.

We understand that DADSS development is challenging, but the industry has the resources and the expertise to make safety advancements a reality. Auto detection technology needs to be a top priority. With this committee's continued leadership, we could soon witness historic results with 7,000 lives saved every year.

Thank you, Madam Chairwoman Schakowsky and Ranking Member McMorris Rodgers, for allowing me the opportunity to testify on this important issue, and I look forward to working with all of you and answering any questions you have for me. Thank you.

[The prepared statement of Ms. Witty follows:]

**Testimony of Helen Witty**
**National President, Mothers Against Drunk Driving**
**House Energy and Commerce Committee**
**Subcommittee on Consumer Protection and Commerce**
**Enhancing Vehicle Technology to Prevent Drunk Driving**
**March 14, 2019**

Thank you Chairwoman Schakowsky and Ranking Member McMorris-Rodgers for holding this hearing and inviting me to testify. I am here today on behalf of Mothers Against Drunk Driving representing the millions of victims of drunk driving crashes, each of which is 100 percent preventable. To quote the opening sentence in last year's drunk driving study by the National Academies of Sciences, Engineering and Medicine, "Alcohol-impaired driving remains the deadliest and costliest danger on U.S. roads today."

I also would like to thank Representative Debbie Dingell whom I had the honor to meet in January. Our meeting was extremely productive but came due to unfortunate and unnecessary circumstances.

In January, the Abbas family was driving home from Florida to Michigan when a Kentucky drunk driver with a .306 BAC was travelling the wrong-way on interstate 75. He hit the family head on killing a mother, father, and their three children. The crash was violent, preventable, and devastated the Dearborn community. Thousands gathered on January 8 and 9th to pay respects to Rima, a family medicine doctor, Issam, a lawyer and real estate agent, and their three children.

Representative Dingell, MADD applauds your leadership and is proud to work with you to find solutions to stop tragedies like the Abbas crash in the future.

**Helen's Story**

Like the Abbas family, I have a story to tell. I am here today not by choice, but because someone else made a criminal decision.

On June 1, 2000, my 16-year-old daughter, Helen Marie, went out rollerblading and never came home.

Until that day, my husband, John, and I had our dream family, a boy and a girl named for each of us. We had the perfect names – John and John and Helen and Helen Marie – Helen Marie because I did not want to be known as Big Helen or Old Helen. Helen Marie came first, and she put me through my mom paces. What fun we had! When John arrived three years later, Helen Marie was thrilled, until she learned he was there to stay. But she learned to love him, deeply. They were not perfect children, but they were well-adjusted, and this is all my husband and I had prayed for.

An alcohol and marijuana-impaired teen driver ended that dream. Helen Marie was skating on the bike path just a few blocks from home when she looked up and saw a car headed towards her on that bike path.

All she could do was die.

I cannot fully describe to you the days and months that followed. Making funeral arrangements for our 16-year-old daughter. Answering a call about organ donation. Boxing up the things that held the essence of her. Standing in a criminal courtroom – a place utterly foreign.

I can tell you that MADD saved me. It showed me I wouldn't die from my grief. MADD gave me hope. It gave me a platform on which to lean and then to fight – to work toward a day when no one else ever experiences the pain this crime inflicts. A pain that never, ever goes away. Her life ended, and mine did not. That is why I am here today. To represent H.M. and the hundreds of thousands of DUI victims who can't be here today.

**Campaign to Eliminate Drunk Driving**

MADD is the nation's leading organization working to stop drunk driving. Since our founding in 1980, drunk driving deaths have been cut in half. Proven countermeasures like the 21 minimum drinking age law, zero tolerance laws for those under 21, and the national .08 BAC standard are some of MADD's proudest achievements. More importantly, MADD has put a face to the crime of drinking and driving and changed the national views on this issue. While drunk driving is no longer culturally acceptable, it is unfortunately still tolerated.

Despite all the challenges facing traffic safety today, drunk driving remains the number one killer on the roadways. The good news is that MADD has a plan – but we need Congressional leadership to help make this plan a reality. Our Campaign to Eliminate Drunk Driving launched in 2006 and serves as a blueprint for literally eliminating drunk driving in America. The campaign is based on proven DUI countermeasures steeped in data and research.

First, MADD supports law enforcement and their efforts to stop drunk drivers through high visibility enforcement. We know that sobriety checkpoints, when coupled with highly visible media, either paid or earned, can reduce drunk driving deaths by 20 percent.

The twice annual *Drive Sober or Get Pulled Over* high visibility enforcement campaigns are critical. These ads are targeted to specific age groups most likely to drive impaired and are an important reminder that if you drink and drive, you will get caught. MADD believes that in addition to two "crackdowns" focused on alcohol, the National Highway Traffic Administration should conduct another separate crackdown focused on drugged driving. This would keep messaging clear and concise.

It is important to note that Congress established the crackdowns as part of the SAFETEA-LU highway reauthorization bill. Specifically, the law allows for at least three annual high visibility law enforcement events to include two on drunk driving and one on seat belts.

With regard to law enforcement, it is a major concern that drunk driving arrests have dropped while deaths have risen. Attached is a chart that shows FBI DUI arrest data over the past 15 years. DUI arrests were highest in 2008 with 1.171 million. In 2017 that number dropped by over 31 percent to 802,000. Law enforcement is the first line of defense in getting all impaired drivers off the road. We must encourage leaders to make traffic enforcement a priority.

In November, MADD hosted a law enforcement conference here in the D.C. area and brought together leaders from all over the country so we could listen to the challenges facing police. In jurisdictions that prioritize traffic safety, we learned that all crimes were down. Clearly this is a complex issue, but MADD looks forward to working with this committee, Congress, and the administration to find ways to encourage law enforcement to make traffic safety a priority.

Second, MADD believes every convicted drunk driver should be required to use an ignition interlock device. Interlocks are about the size of a cell phone and are hard wired to the offender's vehicle. In order to start the car, the driver must blow into the interlock and if the breath sample is below the preset limit, the car will not start.

According to the Centers for Disease Control and Prevention (CDC), interlocks reduce DUI recidivism by 67 percent. Studies also show that states that enact laws requiring all DUI offenders to use an interlock reduce DUI deaths by up to 15 percent. Incredibly 50 to 75 percent of convicted drunk drivers will continue to drive even on a suspended driver's license, so the traditional thinking of license suspension no longer works.

Progress in the states has been amazing. When our campaign started in 2006, New Mexico was the only state to require interlocks for all drunk drivers. Today, 32 states require drunk drivers to use these devices. Attached are two maps which help illustrate progress.

Third, MADD supports advanced vehicle technologies which could one day prevent a drunk driver from operating a vehicle. The idea for such a technology was born in 2006 at a MADD technology symposium in New Mexico. The concept was to integrate into the vehicle a passive alcohol sensor to unobtrusively detect a driver's BAC. A report from the Insurance Institute for Highway Safety estimates that such a technology could save over 7,000 lives each year.

The concept became reality over a decade ago and is known as the Driver Alcohol Detection System for Safety, or DADSS. MADD has always supported DADSS and successfully advocated for legislation to authorize the program which was championed in this committee by Rep. John Sarbanes. This legislation eventually became part of the last two highway authorization bills. It is important to note that the current authorization is set to expire in 2020 so time is of the essence.

I witnessed this technology first-hand at the 2015 MADD National Conference which included an event with the global unveiling of the DADSS test vehicle at the U.S. Department of Transportation. It truly was a moving experience. Over 400 MADD volunteers and victims hung on every word from event speakers Deputy Transportation Secretary Victor Mendez, NHTSA Administrator Mark Rosekind, Senator Tom Udall, Representative Nita Lowey, and ACTS

President Rob Strassburger. Event speakers announced strong support for the DADSS program, and pledged to continue pushing to ensure this technology is in vehicles as soon as possible.

I will let others speak to the specifics of this program, as we are not experts on vehicle technology development or selling cars. We are victims of a preventable crime who want there to be no more victims. We worked diligently to get this program started and to get the government funding to advance this program.

MADD's goal is to get this technology into vehicles for consumers to purchase as soon as possible. We are told that the program has made substantial progress and we are led to believe that the technology has advanced to the point where it can - and must - be transferred to the auto industry so that vehicle integration, large scale fleet testing and ultimately commercialization can occur. The government's role should be to help this transfer and begin a rulemaking process to ensure successful implementation of the technology.

**MADD Challenge**

Therefore, I am here today to issue a challenge to the auto industry, including OEM's and suppliers, and the government, to make DADSS commercially available and for NHTSA to begin a rulemaking on DADSS as soon as possible.

To aid in transferring DADSS to the auto industry for commercialization, a large fleet test would help expedite the technology. In 1982, the General Services Administration ordered 5,000 cars with driver's side airbags. It is our understanding that this stimulated the market and resulted in widespread acceptance and use.

MADD calls for a similar model to be enacted for the DADSS technology to be incorporated into future GSA vehicle fleets.

We understand that DADSS development is challenging in many ways. But the industry has the resources and expertise to make safety advancements a reality. Automatic braking, electronic stability control, lane departure warnings and airbags throughout the vehicle are some of the technologies that are widely deployed and even taken for granted today. Alcohol detection technology needs to be a top priority for the auto industry, for Congress, and for the Administration. With this Committee's continued leadership, we could soon witness historic results in terms of lives saved on our nation's roads. How long are we willing to wait?

Today autonomous vehicles (AVs) are the talk of the nation. Automobile companies, suppliers, and technology companies are spending tens of billions of dollars to develop this technology. MADD is proud to support AVs and we believe that one day they will significantly improve road safety when fully implemented. We also know that it will take time to bring this technology to market. In the meantime, nearly 11,000 people are killed in drunk driving crashes every year. DADSS could save over 7,000 lives annually, helping bridge the gap between an autonomous future and our present day.

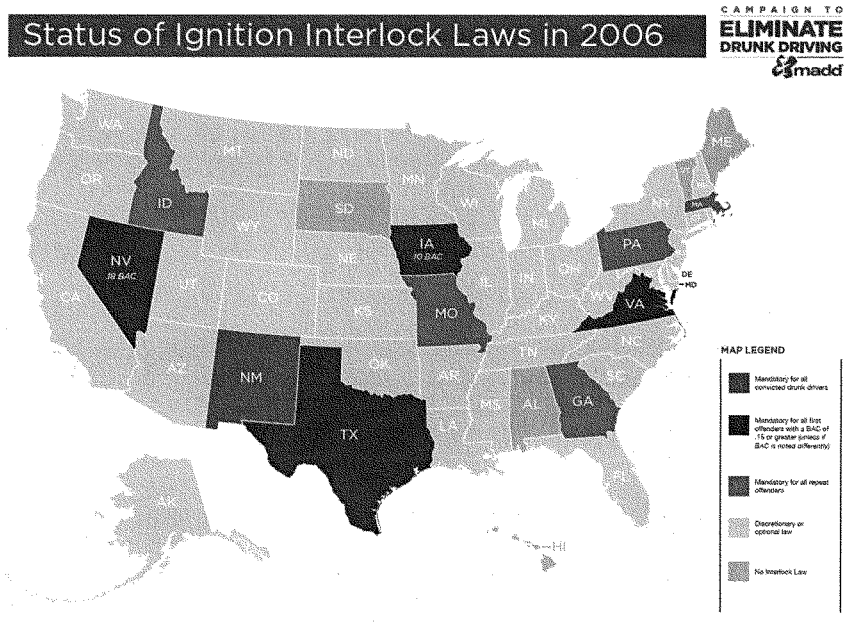
**Closing**

Thank you Madam Chairwoman Schkawosky and Ranking Member McMorris-Rodgers for allowing me the opportunity to testify on this important issue. Your leadership and the leadership of this committee is to be commended. Drunk driving remains the biggest killer on our roadways. If we are to make meaningful progress in reducing traffic fatalities, we must address this issue.

The good news is that we know how to stop these deaths. Strong law enforcement, requiring ignition interlocks for all convicted drunk drivers, and the commercialization of DADSS could all lead to the elimination of drunk driving.

Drunk driving will affect two out of three people in our country. It took the life of my daughter. Let's prevent this tragedy before it becomes personal for so many others. The opportunity to save lives – real people – is within reach.

I look forward to working with all of the members of this committee and am happy to answer any questions you might have.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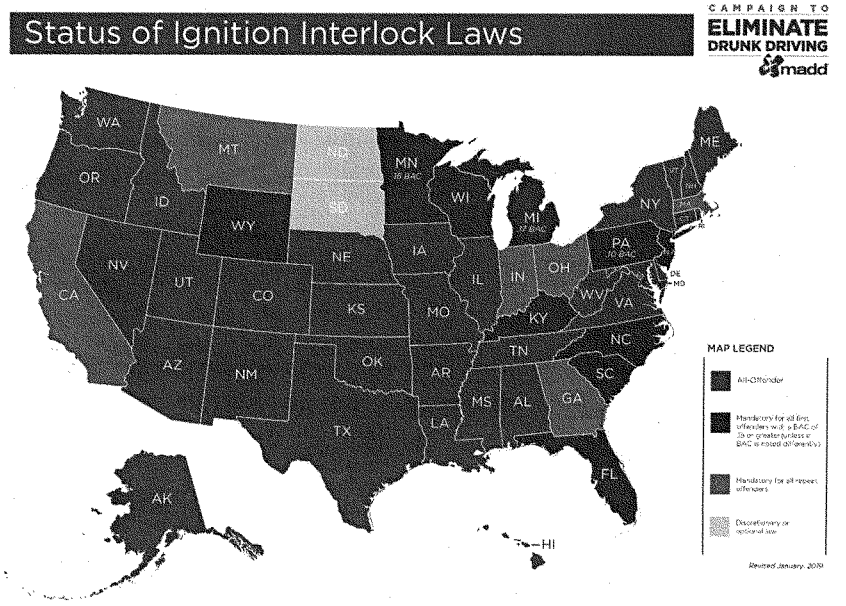
MAP LEGEND
Mandatory for all convicted drunk drivers
Mandatory for all first offenders with a BAC of .15 or greater (unless a BAC is noted differently)
Mandatory for all repeat offenders
Discretionary or optional law
No Interlock Law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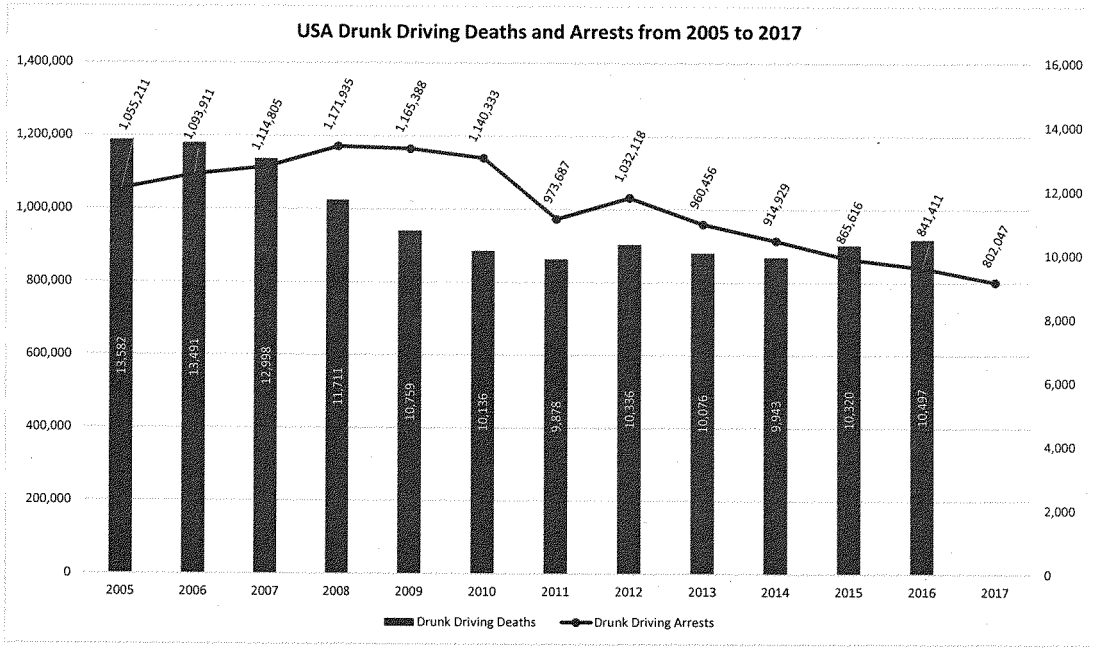



**Drunk driving deaths decreased 23 percent** from 13,582 in 2005 to 10,497 in 2016. (National Highway Traffic Safety Administration)

**Drunk driving arrests decreased 24 percent** from 1,055,211 in 2005 to 802,047 in 2017 (FBI, Table 69). This information is reported from law enforcement agencies to the FBI and in some states is incomplete, but this decrease shows a trend in a decline in drunk driving arrests in the USA.

Ms. SCHAKOWSKY. Thank you very much.

Mr. Strassburger, you are recognized for 5 minutes.

**STATEMENT OF ROBERT STRASSBURGER**

Mr. STRASSBURGER. Good morning, Madam Chair, Ranking Member McMorris Rodgers, and distinguished members of this subcommittee. Thank you for the opportunity to update you on the DADSS research program.

Despite significant efforts over the years, drunk driving in the U.S. remains our most intractable safety problem. To help address this, automakers and NHTSA formed the DADSS partnership to research the widespread use of noninvasive technology to prevent drunk driving. Public-private partnerships like DADSS have led innovations that have enhanced our everyday lives, such as the internet, GPS, the microchip, and WiFi.

The DADSS program is working to invent technology that can detect when a driver is impaired by alcohol and prevent the car from moving. Once the technology has met rigorous performance standards, it will be offered voluntarily as a safety option, similar to other driver-assist systems like automatic emergency braking or lane departure warning.

DADSS technologies hold the greatest promise and are likely the fastest pathway for reversing the drunk-driving trends in the United States. Two technologies are being researched, a touch-based system and a breath-based system. The breath-based system measures alcohol as a driver breathes normally when seated in the driver's seat. The touch-based system measures blood alcohol by shining an infrared light through the fingertip of the driver when he or she touches a vehicle control like the starter button.

A significant part of our research is focused on achieving the performance specifications for speed, accuracy, precision, and reliability of the alcohol measurement. These stringent specifications are necessary to ensure that no driver at or above .08 is allowed to drive, while also ensuring that sober drivers are not hassled by the technology.

We are not modified existing or off-the-shelf technologies, but inventing new technology that must reliably operate over the 20-year life of a vehicle in the harshest environment, the interior of a car. One measure of our progress is DADSS patent portfolio, which currently includes 10 patent families worldwide and covering 10 patent areas. The number of applications exceeds 50, and nine patents have issued.

On-road testing of the DADSS prototype sensors is underway. This is one of those sensors. This testing complements more controlled testing in the laboratory and human subject testing in a hospital setting. We are pleased and honored to have the Virginia Highway Safety Office and James River Transportation participate in the on-road evaluations.

Virginia is also helping in other ways to ready the public for the deployment of DADSS technologies and to reduce drunk driving generally that I describe in my written testimony. Virginia is a model for other States to follow.

While the DADSS program is currently still in the invention phase, we estimate that, in 2020, we will release the breath-based

DADSS technology for fleet vehicles and accessory applications. And in 2024, we are targeting the release of both the breath-based and touch-based DADSS technologies for consumer vehicles, depending on resource availability in 2020 and beyond. While continued research is needed to achieve our 2020 and our 2024 objectives, I am more optimistic than ever that we will be successful.

I will be happy to answer your questions. Thank you.

[The prepared statement of Mr. Strassburger follows:]

THE AUTOMOTIVE COALITION FOR TRAFFIC SAFETY, INC.
TRANSPORTATION SAFETY CENTER
21620 RIDGETOP CIRCLE
SUITE 170
STERLING, VIRGINIA 20166

CONGRESSIONAL TESTIMONY

# ENHANCING VEHICLE TECHNOLOGY TO PREVENT DRUNK DRIVING

**Testimony before**
**The Consumer Protection and Commerce Subcommittee**

**Energy and Commerce Committee**

**U.S. House of Representatives**

**March 14, 2019**

**Robert Strassburger**
**The Automotive Coalition for Traffic Safety, Inc.**

Enhancing Vehicle Technology to Prevent Drunk Driving

## Introduction

Good Morning Madam Chairwoman Schakowsky, Ranking Member Rodgers, and distinguished members of this subcommittee. Thank you for the opportunity to appear before you today to update you on the important technology research to prevent drunk driving that is being performed by the **Automotive Coalition for Traffic Safety, Inc. ("ACTS")**. I am Robert Strassburger, President & CEO of ACTS.

ACTS is a 33–year–old nonprofit based in the Commonwealth of Virginia that is funded by all of the world's leading light car and truck makers.[1] The mission of ACTS is to research, educate and promote highway and motor vehicle safety.

Since 2008, ACTS has been working with the U.S. Department of Transportation's **National Highway Traffic Safety Administration ("NHTSA")** as part of a public–private partnership to develop vehicle–integrated technologies to prevent drunk driving – what has become known as the **Driver Alcohol Detection System for Safety ("DADSS") Program**. Public–private partnerships like DADSS have led to innovations that enhance our everyday lives, such as the internet, GPS and the microchip.

Recognizing the potential of the DADSS technology to save lives by preventing drunk driving, Virginia became the first state to join the **Driven to Protect Initiative** in late 2016 through its Department of Motor Vehicles' Highway Safety Office.[2] Through this Initiative, Virginians are getting an early look at the progress being made and fleet drivers are providing input about their experience with vehicles fitted with prototype DADSS sensors that is helping to improve the technology before it becomes widely available to all consumers.

## DADSS Program

Despite progress over the past three decades, drunk driving in the U.S. claims approximately 10,000 lives and costs the U.S. $194 billion every year. To address this problem, the DADSS cooperative research partnership, was established. The Program is dedicated to advancing the state of alcohol detection systems for motor vehicles. Its explicit mission is to, *"explore the feasibility, the potential benefits of, and the public policy challenges associated with a more widespread use of non–invasive technology to prevent alcohol-impaired driving."* To accomplish

[1] ACTS' is wholly funded by a diverse membership which includes companies headquartered in the U.S., Europe and Asia – BMW, Fiat Chrysler Automobiles, Ford, General Motors, Honda, Hyundai, Jaguar Land Rover, Kia, Mazda, Mercedes-Benz, Mitsubishi, Nissan, Porsche, Subaru, Toyota, Volkswagen and Volvo.

[2] With NHTSA approval, state highway safety offices may use 23 U.S.C. §154, §164, §402, or §405 grant funds to sponsor DADSS deployment projects, subject to the existing conditions for such grants.

this, ACTS is working to demonstrate the **commercial feasibility** and assure the **commercial viability** of DADSS technologies, hasten deployment, while managing and mitigating technical and financial risk.

The Program is developing a first–of–its–kind alcohol detection technology that can detect when a driver is impaired by alcohol and prevent the car from moving. Once the DADSS technology has met rigorous performance standards, it will be voluntarily offered to vehicle owners as a safety option, similar to other driver assist systems like automatic braking or lane departure warning.

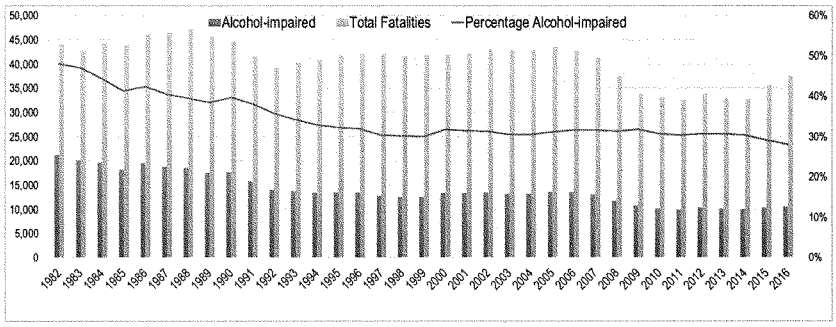



*Figure 1 Impaired driving fatality trend in the U.S. Source: NHTSA.*

## Potential Safety Benefits of DADSS Technologies

DADSS technologies hold the greatest, and likely the most expeditious, promise to reverse impaired driving fatalities trends in the U.S. and globally. The estimated safety benefits of various drunk driving countermeasures are compared in the table below.

| Countermeasure | Deaths Avoided Annually |
|---|---|
| All offender ignition interlock requirements | 552[3] |
| 50–state 0.05 *per se* BAC Limit[4] | 1,790[5] |
| All driver BACs limited to 0.08 or less | 6,904[2] |

[3] Lund, Adrian K.; McCartt, Anne T.; Farmer, Charles M. (2012). Contribution of alcohol-impaired driving to motor vehicle crash deaths in 2010. *Insurance Institute for Highway Safety.*

[4] Utah began enforcing a 0.05 BAC limit effective December 30, 2018. In 1983, Utah was the first state to lower its BAC limit to 0.08 from 0.10. In 2000, President Clinton signed legislation compelling states to adopt 0.08 BAC effective no later than 2004.

[5] Alcohol Clin Exp Res. 2017 Dec;41(12):2128-2139. doi: 10.1111/acer.13501. Epub 2017 Oct 24.

Enhancing Vehicle Technology to Prevent Drunk Driving

The projected estimates above indicate that the inclusion of more widespread deployment of vehicle–integrated technology as part of a multi–faceted, comprehensive commitment to reduce and eliminate drunk driving would likely significantly enhance the safety benefits attributable to that commitment.

An analysis by the University of Michigan's Transportation Research Institute ("UMTRI") estimated the injury prevention impact and cost savings associated with vehicle–integrated technology that limits driver BACs to less than 0.08 percent (0.08%).[6] The UMTRI study concluded that over 15 years:

- 85 percent (85%) of crash fatalities (>59,000) and 84 to 88 percent (84% ~ 88%) of nonfatal injuries (>1.25 million) attributable to drinking drivers would be prevented; thereby
- saving an estimated $342 billion in injury–related costs, with the greatest injury and cost benefit realized among recently legal drinking drivers.

**DADSS Program Authorization**

The DADSS Program is authorized and funded through 2020 under strict performance specifications based on a blood alcohol concentration (BAC) level of 0.08 percent (0.08%) – the legal limit in every state except Utah. See 23 U.S.C. §403(h). Funding is capped at $21.248 million which will result in a 10 percent (10%) reduction in federal funding in Fiscal Year 2020. See 23 U.S.C. §403(h)(2).

The DADSS authorization prohibits the development of, *"requirements for any device or means of technology to be installed in an automobile intended for retail sale that records a driver's blood alcohol concentration."*

[6] Carter, P. M., Flannagan, C. A., Bingham, C. R., Cunningham, R. M., & Rupp, J. D. (2015). Modeling the Injury Prevention Impact of Mandatory Alcohol Ignition Interlock Installation in All New US Vehicles. *American Journal of Public Health*, (0), e1-e8.

Enhancing Vehicle Technology to Prevent Drunk Driving

## DADSS Technologies

Two technologies are being researched: a touch–based and a breath–based system.

The **breath–based system** measures alcohol as a driver breathes normally, when in the driver's seat. It is being designed to take instantaneous readings to accurately and reliably distinguish between the driver's breath and that of any passengers.

*Figure 3 Breath-based DADSS System Illustration*

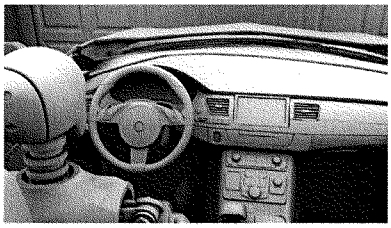


*Figure 2 Touch-based DADSS System Illustration*

The **touch–based system** measures blood alcohol levels by shining an infrared–light through the fingertip of the driver. It is being designed to be integrable into current vehicle controls, such as the starter button or steering wheel, and take multiple, accurate readings.

A significant part of the Program's efforts has been aimed at the research needed to achieve the **DADSS Performance Specifications** related to speed, accuracy, precision and reliability of the BAC measurement. These rigorous standards continue automaker's long–standing best practice to use six–sigma quality requirements, which demand that every piece of safety equipment installed in passenger vehicles as original equipment performs correctly 99.9997 percent (99.9997%) of the time. These stringent performance specifications are necessary to:

- Ensure that no driver at or above 0.08% BAC is allowed to drive; while also
- Ensuring that sober drivers are not hassled.

The DADSS technology must be accurate, precise, repeatable and reproducible over the 20–year life of a vehicle for the variety of people (ethnicity, gender, medical condition, etc.) from which the measurement is to be made who will use that vehicle over its lifetime.
The DADSS Performance Specifications set accuracy and precision requirements for a BAC range from 0.01 percent to greater than 0.09 percent (0.01% ~ 0.09%).

## Current Efforts

*Component, System and Vehicle Level Testing of the DADSS Technology*

Following good scientific and engineering practice, testing of the DADSS technologies, i.e., at the component level at the DADSS Lab, at the system level involving human subjects at Harvard's McLean Hospital, and at the vehicle level through on–road evaluations (currently in Virginia and Massachusetts) is currently being conducted over a broad range of BAC from 0.00% through 0.12%, over a broad range of operational and environmental conditions and alcohol consumption and elimination protocols.

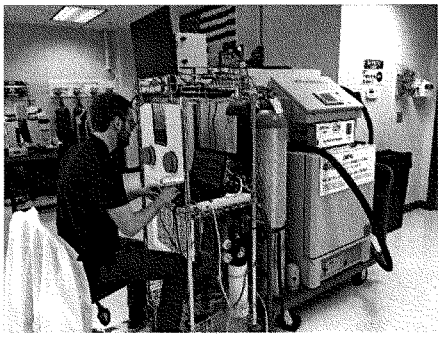


*Figure 4 Component level testing in an environmental chamber at the DADSS Lab in Marlborough, MA*

*Figure 5 System level testing involving human subjects at McLean Hospital, a Harvard Medical School affiliate*

Enhancing Vehicle Technology to Prevent Drunk Driving

Two on–road evaluations of the DADSS technologies are being initiated: a naturalistic evaluation and a controlled evaluation. These evaluations supplement the component level testing being conducted at the DADSS Lab in Marlborough, MA and the system level testing being conducted at McLean Hospital, an affiliate of the Harvard Medical School.

The **naturalistic evaluation** involving livery vehicles fitted with the breath–based technology derivative suitable for use in fleets, began in August 2016 in partnership with the Commonwealth of Virginia and James River Transportation. See https://www.dadss.org/virginia/. To date, over 41,000 miles have been accumulated and over 21,000 sensor readings made in over 4,000 hours of operation. Naturalistic testing will expand later this year in Virginia, and possibly in other states or sites.

The **controlled evaluation** is to begin once clearance for the information collection is approved by the Office of Management and Budget ("OMB"). That approval is currently pending which is delaying initiation of this testing. See 80 FR 24314 (2015) and 82 FR 37163 (2017). Once begun, this testing will stress the DADSS sensors operating under environmental and altitude extremes experienced in the U.S. involving dosed passengers. In anticipation of OMB approval, testing of the vehicles, data acquisition system, and evaluation protocol to be used in this evaluation began in Massachusetts in February 2019.

The DADS information gathered in these evaluations will be used to narrow gaps between actual performance and the performance specifications that need to be met to allow widespread use of DADSS technologies, make improvements to the technology for long–term installation in cars and trucks bringing us one step closer to when the technology is ready to be offered to both automakers and consumers as an optional safety system.

This battery of stress testing ensures that we have a robust DADSS sensor and system, and is also generating a comprehensive data library of BAC data under all manner of conditions in which the DADSS system is to operate. This will ensure that the measurement algorithm adopted will be robust over a broad range of BAC and operating conditions.

*Technology Roadmap*

While the DADSS Program remains in the invention phase, we estimate the testing now being conducted will conclude with the technology transfer, by the end of the current authorization in 2020 with the release of the first DADSS commercial derivative for fleet vehicles and accessory applications of the breath–based DADSS technology (GEN 3.3). Should the FAST Act authorization be extended to 2024, we are targeting the release of the derivative for privately owned and operated vehicles for the breath–based technology by 2023 to 2024 (GEN 4.0) and

the touch–based technology by 2024 (GEN 5.0). Should the authorization be enhanced, we estimate that the release of the private vehicle derivative could be pulled ahead one to two years.

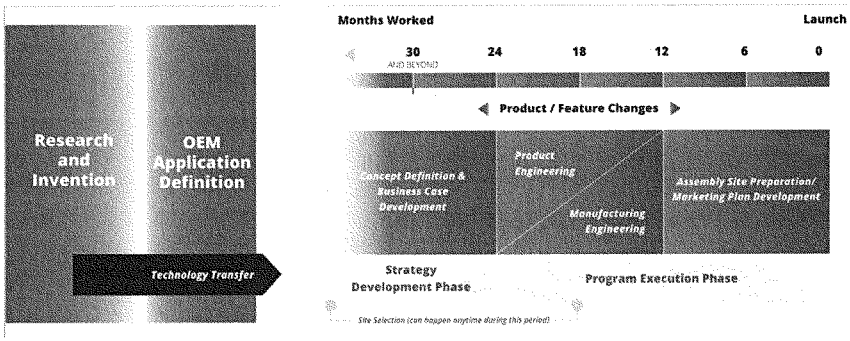



*Figure 6 Automotive innovation and technology transfer in relation to product development process (Source: CAR).*

- To accomplish technology transfer of the breath–based fleet derivative (GEN 3.3) by 2020, we are:
  - Taking advantage of SAE's expedited development process to ratify the DADSS Performance Specification for fleet vehicles as an SAE J–standard;
  - Planning the needed verification and validation and other recordkeeping testing needed to support a final release decision in 2020;
  - Raising awareness of the DADSS technology among fleet operators and service providers beginning in April 2019;
  - Working to qualify the supply chain needed to support the semi–automated, low–volume production of up to 100,000 to 200,000 units per year[7];
  - Working to develop the business model and deployment strategy.[8]

[7] This work does not involve the expenditure of federal or state grant funds.
[8] Ibid.

*Figure 7 NAFA Institute & Expo Program Ad (See https://www.nafainstitute.org/Home.aspx).*

*Driven to Protect Initiative*

In late 2016, Virginia became the first state to use NHTSA highway safety grant funds to partner with the DADSS Program, through the Virginia Department of Motor Vehicles' Highway Safety Office. This partnership resulted in an initiative called **Driven to Protect** which is a model program for raising awareness and acceptance of the DADSS technology to generate consumer demand for the technology in sync with the readiness of the technology. Initiative events have been held at NASCAR races, minor league baseball games, on military posts, and other venues. Under the Driven to Protect Initiative, Virginia is also helping to educate the next generation of drivers about responsible driving behavior, and is helping to prevent additional drunk driving crashes, injuries and deaths on its roads.

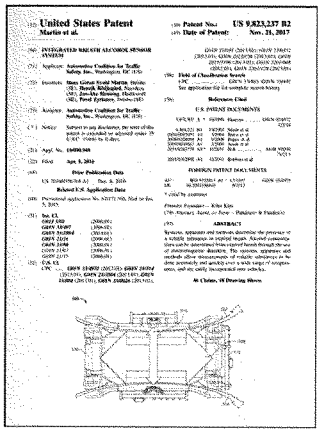
*Figure 8 Driven to Protect exhibit at the Washington Auto Show (2018).*

*Intellectual Property*

To promote commercialization, hasten deployment, and assure commercial viability, ACTS owns all of the intellectual property created by the DADSS Program. ACTS is prosecuting DADSS–related patents in the major regions of the world where motor vehicles are manufactured, namely, Canada, China, Europe, Japan, South Africa, South Korea[9], Sweden, and the United States. ACTS is also prosecuting patents under the Patent Cooperation Treaty ("PCT") which makes it possible to seek patent protection for an invention simultaneously in each of a large number of countries by filing an "international" patent application.[10] All costs associated with the prosecution and maintenance fees of the DADSS technology patent portfolio are borne exclusively by ACTS. The portfolio currently includes ten (10) patent families worldwide covering ten (10) patent areas. The total number of applications exceeds fifty (50). Nine (9) patents have issued to date.

[9] Beginning in 2018.

[10] https://www.wipo.int/treaties/en/registration/pct/


United States Patent
Martin et al.

Patent No.: US 9,823,237 B2
Date of Patent: Nov. 21, 2017

INTEGRATED BREATH ALCOHOL SENSOR SYSTEM

Applicant: Automotive Coalition for Traffic Safety Inc., Washington, DC (US)

Inventors: Hans Gustaf Martin, Helsinki (FI); Henrik Ringdahl, Nacka (SE); Zan-Ake Hansson, Hallstavik (SE); Fred Fyrmann, Nykvarn (SE)

Assignee: Automotive Coalition for Traffic Safety, Inc., Washington, DC (US)

Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

Appl. No.: 14/890,949

Filed: Apr. 5, 2014

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CPC ..... G01N 33/0022 (2013.01); G01N 21/39 (2013.01); G01N 21/4706 (2013.01); G01N 21/6526 (2013.01); G01N 33/0004 (2013.01); G01N 33/0026 (2013.01)

Field of Classification Search
CPC ..... G01N 33/0022; G01N 33/0026; G01N 33/0004
See application file for complete search history.

References Cited

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

ABSTRACT

Systems, apparatus and methods determine the presence of a volatile substance in expired breath. Expired exhaustion data can be determined from expired breath through the use of photoacoustic detection. The systems, apparatus and methods allow measurements of volatile substances to be done accurately and quickly over a wide range of temperatures, and are easily incorporated into vehicles.

At Claims, 18 Drawing Sheets

*Figure 9 U.S. Patent No. 9,823,237, "Integrated Breath Alcohol Sensor System (2017)*

ACTS will license the DADSS technology on the same terms as ACTS Members to any entity with the capability of manufacturing, deploying and supporting or servicing DADSS technologies.

## Summary

The DADSS Program began with a wild, audacious conceptual question: What if we had widely–deployable, vehicle–integrated technology that could limit driver BACs to less than 0.08? Our initial research taught us that we would need an alcohol detection system that, without hassling sober drivers, measured a driver's BAC within one–third of a second with exceptional accuracy and precision[11] that doesn't require any maintenance over the vehicle's life. The research performed subsequently has led to inventions that have turned that audacious concept into a technology suite that holds extraordinary promise for commercialization and deployment in just a few years. Once successfully deployed, DADSS is likely to produce safety benefits on par with electronic stability control and the safety belt.

### More Information

DADSS Program Publications: https://www.dadss.org/our-publications/
DADSS Events: https://www.dadss.org/events/
Driven to Protect Events: https://www.dadss.org/driven-to-protect/

[11] The DADSS Performance Specification states that the accuracy and precision of the BAC measurement should at least ± 0.0003% or "three–zeros, three". To conceptualize this, that's equivalent to being able to measure the weight of a 4–ounce filet mignon placed on the hood of a 66,000–pound cement mixer.

## ABOUT ACTS

ACTS was originally incorporated in the District of Columbia on June 27, 1986 as the American Coalition for Traffic Safety. On July 23, 1992, ACTS was incorporated in the Commonwealth of Virginia. On June 16, 1999, the Board of Directors adopted the organization's current name.

ACTS is classified as a 501(c)(4) nonprofit corporation by the U.S. Internal Revenue Service. It is funded by motor vehicle manufacturers.

In furtherance of its mission and objectives, ACTS works cooperatively with other safety organizations and government agencies. ACTS has brought together disparate groups to address difficult safety issues and has hosted numerous leadership conferences on increasing safety belt and child restraint use.

ACTS facilitated the U.S. DOT's **Blue Ribbon Panel on Child Restraints and Vehicle Compatibility**, which is credited with the introduction of LATCH (Lower Anchors and Tethers for Children). ACTS also facilitated a second **Blue Ribbon Panel: Protecting Our Older Child Passengers**, which encouraged states to enact booster seat laws.

ACTS has worked to keep tweens safely restrained in the back of vehicles and raised awareness about the very serious safety issue of unintended kids in and around cars.

In 2005, ACTS was asked to serve as the manager of state legislative activities, and later overall management services, for the **National Safety Council's Air Bag and Seat Belt Safety Campaign**. The Campaign was a coalition of automakers, insurance companies and traffic safety advocates who came together in response to a national crisis of children dying from first generation frontal airbags. In this role, ACTS was influential in helping states pass primary enforcement safety belt laws.

In 2008, the scope of ACTS' activities was further expanded when the organization established a public–private partnership with the U.S. federal government to research and develop vehicle–integrated technologies to prevent drunk driving known as the **Driver Alcohol Detection System for Safety Program.**

See www.actsautosafety.com and www.dadss.org.

Ms. SCHAKOWSKY. Thank you.

And now, Ms. Claybrook, you are recognized for 5 minutes.

**STATEMENT OF JOAN CLAYBROOK**

Ms. CLAYBROOK. Thank you so much, Madam Chairman and Ranking Member McMorris Rodgers. It is a pleasure to be here with the members of the subcommittee.

I am Joan Claybrook, and I am representing Advocates for Highway and Auto Safety, a coalition of consumer health-safety groups and insurers who are working together to save lives by promoting the adoption of safety laws.

Thank you for this opportunity to testify. The topic of the hearing, enhancing vehicle technology to prevent drunk driving, is an issue I feel passionately about and to which I have devoted many efforts over many, many years in the last five decades.

While we have made progress over the years, the grim reality remains that a drunk-driving fatality occurs every 48 minutes on average, and alcohol-impaired crashes are the largest single contributor to traffic fatalities in the United States. It is past time to address drunk driving with bold Federal action to facilitate wider use of these proved technologies, enactment of proven State laws, and enhanced law enforcement.

Advocates, as always, champion proven technology, and for good reason. It is one of the most effective strategies preventing deaths and injuries. In 2012, NHTSA estimated that, since 1960, over 600,000 lives—and that is old data now—have been saved by motor vehicle safety technologies, most of them in Federal standards.

One of our most recent achievements was the Federal requirement for rearview cameras as standard equipment in all new cars as of May of this last year. This landmark law never would have been enacted without the remarkable leadership of Chairwoman Schakowsky and the tireless devotion of the victim families. So, thank you so much, Madam Chairman.

Similarly, we push forward to reduce drinking and driving with proven technologies, including ignition interlock devices, known as IIDs, and sensor technology. Advocates commends Representative Debbie Dingell—thank you so much—for your recent introduction of legislation to reduce drunk driving following the horrific crash that you mentioned in Northville, Michigan.

State laws requiring all convicted drunk drivers to have an IID installed in their vehicle have been shown to be incredibly effective. As such, Congress and NHTSA should continue to motivate the States to enact this lifesaving law and to consider the addition of sanctions for States that fail to act. Federal legislation, enacted with the warning of financial sanctions, encourages every State to adopt the age 21 minimum drinking age, a zero tolerance BAC law for under-age drinking and driving, a .08 percent BAC law.

Every one of these lifesaving Federal laws resulting in every State—every State—taking action. And not a single State lost a dollar in Federal construction money, highway construction money, as a result, although that was the penalty if they did not, because they acted.

Additionally, the further development of sensor technology holds great promise to reduce drunk-driving crashes. Considerable re-

search has gone into developing the Driver Alcohol Detection System for Safety, known as DADSS. After more than a decade of research and millions of dollars provided by Congress, NHTSA and the industry should be doing everything they can to get these technologies into the vehicles without further delay.

But, unfortunately, they aren't, and I think the instrumental word that Mr. Strassburger mentioned was that they didn't want to have this in vehicles so that people wouldn't be hassled by the technology. Well, people aren't hassled by this technology because it doesn't come into play unless you are drinking and driving. So, that is a ridiculous statement. I call Mr. Strassburger "the industry excuse man". I have testified against him on many, many occasions. And I hope that he will get over this one day.

All right. So, placing DADSS into these vehicles is essentially, and there is no better way to advance a potential lifesaving technology. I just talked to Mr. Kelly, and it is my estimate, based on what he said—I want to emphasize that—that if we put these in every single vehicle, it would be about $10 a vehicle. Who wouldn't pay $10 to put this system into their vehicles, so that people would not drive drunk?

While IIDs and sensor systems prevent drunk driving, one of the most important defenses, of course, for the drunk driver is a safe car as well. Current advanced driver assistance systems such as automatic emergency braking, lane departure warning, and blind-spot detection have verified safety benefits. Yet, none of these systems—none of them— are required to be standard equipment in all vehicles, and all of them are in some vehicles. So, we know that they work.

In fact, many of these technologies are offered only on the most expensive models as a part of a costly luxury package. We urge Congress to require these proven technologies to be standard equipment in all new vehicles by issuing new Federal motor vehicle safety standards with a deadline for implementation, just like the rear camera.

In addition to achieving these benefits now, these advanced technologies can serve as building blocks on the path to autonomous vehicles, which we have already heard Mr. Latta mention today. And I appeared recently on a panel with some industry individuals who said that they are a long way down the road. So, they are not going to be the substitute for these technology systems on alcohol, but——

Ms. SCHAKOWSKY. Please wrap it up. OK?

Ms. CLAYBROOK. OK. Sorry.

Ms. SCHAKOWSKY. Thank you.

Ms. CLAYBROOK. And I would like to commend the law enforcement officers who daily risk their lives in order to prevent drunk driving. Their lives, too, would be better off if we have these systems in cars.

So, by deploying all of these known sensible solutions, we can once again make significant progress to reduce drunk driving, and I hope that the committee will not fail to act on this.

Thank you.

[The prepared statement of Ms. Claybrook follows:]

**STATEMENT OF JOAN CLAYBROOK,
BOARD MEMBER OF ADVOCATES FOR HIGHWAY AND
AUTO SAFETY AND FORMER ADMINISTRATOR OF
THE NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION,
ON BEHALF OF ADVOCATES FOR HIGHWAY AND AUTO SAFETY**

**ON**

**"ENHANCING VEHICLE TECHNOLOGY TO PREVENT
DRUNK DRIVING"**

**SUBMITTED TO THE**

**UNITED STATES HOUSE OF REPRESENTATIVES
COMMITTEE ON ENERGY AND COMMERCE
SUBCOMMITTEE ON CONSUMER PROTECTION AND COMMERCE**

**MARCH 14, 2019**

## Introduction

Chairwoman Schakowsky, Ranking Member McMorris Rodgers, and Members of the Consumer Protection and Commerce Subcommittee, my name is Joan Claybrook. I am a Board member and former Consumer Co-Chair of the Board of Advocates for Highway and Auto Safety (Advocates). I am testifying this morning on behalf of Advocates, an organization I helped to establish in 1989. I have been involved in highway and auto safety throughout most of my career including working for the National Highway Traffic Safety Administration (NHTSA) when it was first established in 1966. I was appointed by President Jimmy Carter as Administrator of NHTSA and served in that post from 1977 to 1981.

Advocates is a unique coalition of public health, safety and consumer organizations, insurers and insurance agents that promotes highway and auto safety through the adoption of federal and state laws, policies and regulations. This year Advocates marks three decades of working to prevent crashes, deaths and injuries through the advancement of safer vehicles, safer drivers and passengers, and safer roads and infrastructure.

## Advocates Consistently Promotes Proven Technology to Save Lives and Prevent Injuries

Advocates always has enthusiastically championed proven vehicle safety technology and for good reason -- it is one of the most effective strategies for preventing deaths and injuries. NHTSA has estimated that since 1960, over 600,000 lives have been saved by motor vehicle safety technologies.[1] In 1991, Advocates led the coalition that supported enactment of the bipartisan Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991[2] which included a mandate for front seat airbags as standard equipment. As a result, by 1997, every new car sold in the United States was equipped with this technology and the lives saved have been significant.

Between 2007 and 2016 airbags saved approximately 2,500 lives annually,[3] and have saved an estimated 47,648 lives from 1987 to 2016, according to NHTSA.[4]

Advocates continued to build on this success by supporting additional proven lifesaving technologies as standard equipment in all vehicles in other federal legislation and regulatory proposals. These efforts include: tire pressure monitoring systems;[5] rear outboard 3-point safety belts;[6] electronic stability control;[7] rear safety belt reminder systems;[8] brake transmission interlocks;[9] safety belts on motorcoaches;[10] electronic logging devices for commercial motor vehicles (CMVs)[11]; and, others. These advances have saved hundreds of thousands of lives. Safety equipment such as airbags and safety belts are the first line of defense for an occupant involved in a crash caused by an impaired driver.

Advocates, together with KidsAndCars.org, is proud to have worked with Subcommittee Chair Jan Schakowsky on the enactment of legislation requiring the installation of rearview cameras in all new motor vehicles as of May 2018.[12] Without Representative Schakowsky's tireless efforts and leadership, this landmark law would never have been enacted and children would have continued to been killed and seriously injured because of dangerous blind spots.

Further, Advocates has been a leading safety voice in the fight against alcohol-impaired driving. Our organization supported the development of breathalyzer technology which is essential to enforcement of impaired driving laws and keeping drunk drivers off the road. Additionally, together with Mothers Against Drunk Driving (MADD), Advocates was a principal supporter in federal and state efforts to reduce blood alcohol content (BAC) laws from .10 to .08 percent and achieve a national law. In fact, Advocates' founding Board Member Andrew McGuire,

Executive Director of the Trauma Foundation, joined the Board of MADD in January 1981, only months after it was created and served as its Acting Executive Director in 1983. And, as NHTSA Administrator in 1980, I authorized giving MADD its first government grant for its work on reducing drinking and driving. Lastly, Advocates has a long-standing policy in favor of establishing a national .05 percent BAC threshold for drunk driving. Preventing impaired driving is an integral and vital part of Advocates' federal and state legislative program.

**Motor Vehicle Deaths Remain Unacceptably High and Impaired Driving is a Significant Threat to Public Safety**

According to the federal government, each year motor vehicle crashes kill tens of thousands of people and injure millions more at a cost to society of over $800 billion.[13] According to the latest statistics from NHTSA, 37,133 people were killed on our Nation's roads in 2017.[14] Despite these abysmal figures, this week the Administration proposed cutting NHTSA's budget in FY 2020 by $37 million.[15] We strongly oppose this detrimental reduction which will weaken the abilities of the agency charged with protecting motorists.

The grim reality is that an average of one alcohol-impaired-driving fatality occurs every 48 minutes.[16] In 2017, 10,874 people were killed in crashes involving a drunk driver, accounting for nearly a third of all traffic fatalities (29 percent).[17] Sadly, 220 of these fatalities were children.[18] Of these young fatalities, a staggering 54 percent were occupants of vehicles with drivers who had a BAC of 0.08 percent or higher.[19] These are not just statistics. These are real people, whose lives have been unnecessarily cut short and whose families have been torn apart.

Shockingly, research has shown that about one-third of all drivers arrested or convicted of drunk driving are repeat offenders.[20] According to MADD, arrest data from the Federal Bureau of Investigation reveals that an average drunk driver has driven drunk over 80 times before a first arrest.[21] These stark figures provide the rational for the National Transportation Safety Board (NTSB) to consistently list ending impaired driving on their Most Wanted List of Transportation Safety Improvements, including the 2019-2020 list released just last month.[22]

In addition to an excruciating emotional toll, these crashes impose a substantial economic burden. According to NHTSA, the estimated economic cost of all alcohol-impaired crashes in the United States in 2010 (the most recent year for which cost data is available) was $44 billion.[23]

The positive news is that the number of lives lost to drunk drivers has decreased from previous decades thanks to the enactment of strong laws, more effective enforcement, the hard work and passion of MADD, Advocates and numerous other public health and safety organizations, and dedicated law enforcement officials. Nonetheless, far too many people are still being killed in drunk driving crashes. In fact, since the mid-1990s, the percentage of drunk driving fatalities has plateaued indicating that progress has stagnated and even reversed.[24]

Despite these dismal statistics, progress can be achieved with concerted action by state and federal elected officials and authorities. Last year two states, Idaho and Iowa, enacted all-offender ignition interlock device (IID) laws, bringing the total to 32 states and the District of Columbia with this lifesaving law. Additionally, Advocates commends the leadership of Representative Debbie Dingell (D-MI) for her recent introduction of legislation to reduce drunk

driving, deaths and injuries following the horrific drunk driving crash that killed five members of the Abbas family from Northville, Michigan.

As Administrator of NHTSA from 1977-1981, I recognized the unacceptable human and financial toll inflicted upon our society by individuals who chose to get behind the wheel of a vehicle while impaired. As such, I built on the work of my predecessors and supported increased federal funding for enforcement to get drunk drivers off the road and for research to identify tools to prevent them from operating a vehicle. Even still, nearly four decades after my tenure, this problem persists while data driven countermeasures languish.

**Technology and Lowering the Legal BAC Limit Can Prevent Impaired Driving Crashes**

Solutions to meaningfully reduce the incidence of impaired driving and the resulting fatalities, injuries and costs include technology such as IIDs, as mentioned above, and sensor technology. These systems can help prevent vehicles from being operated by an individual that is intoxicated from alcohol. Offenders required to install an IID on their vehicle must blow into an IID to demonstrate they are not alcohol impaired or the vehicle's engine will not start. The driver is then required to blow into the IID at certain intervals while operating the vehicle. According to data from the Insurance Institute for Highway Safety (IIHS) in 2009, if IIDs were in all cars, more than 8,000 lives could have been saved the preceding year.[25]

Laws requiring all convicted drunk drivers to use an IID have been shown to be incredibly effective. In fact, when West Virginia adopted its IID program, recidivism was reduced by an amazing 77 percent among first-time offenders.[26] As such, Congress and NHTSA should continue to motivate states to enact this lifesaving law and consider the addition of sanctions for

states that fail to act. Federal legislation enacted with the warning of financial sanctions encouraged states to adopt a 21 minimum drinking age, a zero tolerance BAC law for underage drinking and driving, and a .08 percent BAC law.[27] Every one of these federal laws resulted in every state acting, and not a single state lost a dollar of federal highway construction money.

The further development of touch-based and passive breath sensor technology that detects if a driver is alcohol intoxicated also holds great promise to help reduce drunk driving crashes. Considerable research has gone into developing the Driver Alcohol Detection System for Safety, known as DADSS. Research on DADSS commenced in 2008 as a collaborative research partnership between the Automotive Coalition for Traffic Safety (ACTS), representing 17 automobile manufacturers, and NHTSA.[28] This work has developed two systems for preventing the operation of vehicles by impaired individuals. The first is a passive, breath-based technology which samples the air a driver breathes out, measures the alcohol and carbon dioxide in that sample, and determines the corresponding BAC level. This process is non-intrusive and does not require the driver to blow into a tube as with IIDs. The second is a touch based sensor installed as a pad in the vehicle. The pad uses light to determine the BAC based on how the light is reflected from the user's skin.

After more than a decade of research and millions of dollars provided by Congress, NHTSA and the industry should be doing all they can to get this technology into vehicles without further delay. Placing DADSS into a fleet of federally owned vehicles may be the best way to further advance this potentially lifesaving technology. Such an approach has worked previously. In 1984, the General Services Administration (GSA) purchased 5,000 vehicles with airbags before the equipment was required to be in all vehicles.[29] This approach provided NHTSA with

invaluable on-road performance data demonstrating the benefits of airbags.[30] Employing a similar strategy with DADSS would allow the agency to evaluate the current state of the technology so that it can verify its capabilities and accelerate wide-scale deployment. In addition, installing DADSS in a federal fleet would further improve the safety of cars operated by federal employees.

**Lowering the Legal BAC Threshold Saves Lives**

Congress, as part of the fiscal year 2001 U.S. Department of Transportation (DOT) appropriations bill, included a requirement that states lower the legal threshold for drunk driving from .10 to .08 percent BAC by 2004 or lose federal funding.[31] By 2005, all states had a .08 percent BAC law in effect and no state lost any highway funds.[32] Research has estimated that lowering the BAC threshold to .08 has saved over 24,000 lives.[33] Lowering the legal BAC threshold to .05 will result in similar benefits to public safety. If all states adopted a .05 percent BAC or lower law, our Nation would experience an 11 percent decline in fatal alcohol crashes and 1,790 lives would be saved annually.[34]

At .05 percent BAC, a driver is impaired and exhibits reduced coordination, reduced ability to track moving objects, difficulty steering, and reduced response to emergency driving situations.[35] Lowering the BAC to .05 percent has been shown to have a broad deterrent effect that reduces the incidence of drunk driving at all levels of impairment.[36] Approximately 100 countries have some type of .05 percent or lower BAC law.[37] While their average alcohol consumption is the same or higher than the U.S., their alcohol-related deaths are lower.[38]

Recognizing the compelling research and studies of real-world experience, in 2017, Utah became the first state in the Nation to enact legislation to lower the BAC threshold for driving to .05 percent.[39] The law went into effect on December 30, 2018. Advocates promoted adoption of the law and worked with legislators, the Governor and Utah groups on the successful legislative effort in Utah and is currently urging other states to pass this law. Congress should once again take the lead on this urgent public safety issue by offering incentive grants to encourage states to lower the BAC threshold for drunk driving to save lives followed by withholding of federal funding for states that fail to amend their statutes.

**Additional Advanced Vehicle Technologies are Available Now that Can Prevent Drunk Driving Crashes**

Research conducted by IIHS has demonstrated that current advanced driver assistance systems (ADAS), such as automatic emergency braking (AEB), lane departure warning and blind spot detection, have safety benefits by reducing crashes.[40] Yet, none of these systems are required to be standard equipment on all vehicles. In fact, many of these technologies are offered on only the most expensive models or are as part of costly luxury packages that include non-safety items. Thus, many consumers are not afforded the lifesaving benefits of this safety equipment.

To reduce preventable crashes including those caused by impaired driving, Congress should require that these proven technologies, shown to prevent or mitigate crashes, be standard equipment on all new vehicles by issuing new federal motor vehicle safety standards. Specifically, absent timely federal agency action, the U.S. DOT should be required by legislation to issue minimum performance standards for front and rear automatic braking technology that is responsive to vehicles, pedestrians, bicyclists and other vulnerable road users to prevent crashes

in which the driver is impaired, distracted or otherwise does not brake in order to avert a collision. The U.S. DOT also must issue minimum performance standards for other proven ADAS technology including but not limited to lane departure warning and blind spot detection.

**Law Enforcement Officers Must be Given the Tools They Need to Combat Drunk Drivers**

Law enforcement officers risk their lives on a daily basis to help prevent drunk driving. In 2015, Montgomery County Maryland Police Officer Noah Leotta was struck and killed by a drunk driver when working on a sobriety task force.[41] Tragically, Officer Leotta is but one example of the losses incurred by law enforcement in the line of duty working to prevent drunk driving. Congress must continue to provide law enforcement with adequate funding and resources needed for training programs to identify impaired drivers, upgrade enforcement techniques and conduct sobriety checkpoints. Effective enforcement is a key component in combating this major threat to public safety.

**Drugged Driving Safety Concerns**

Impaired driving not only occurs when a driver has been drinking. It is clear that drug use and misuse is a serious concern. While some reports show that the incidence of drug use, which includes legal, illegal, and prescription drugs, in fatally injured drivers is on the rise, drug use as a causal factor in traffic crashes remains uncertain. Generally, a correlation between drug use, specific drug levels in the body, and impairment is unresolved. However, a recent Columbia University study found that in fatal two-passenger crashes in which only one driver was identified as initiating the crash, drivers who initiated crashes were 67 percent more likely to test positive for prescription opioids.[42] This finding was independent of alcohol use. Moreover,

when drug and alcohol use are combined, known as "polyuse", the effects of impairment for a driver can be amplified.

A recent study by IIHS revealed that crashes have increased in states where recreational marijuana has been legalized, although IIHS notes marijuana's role in crashes at this time is not as clear as the link between alcohol and crashes.[43] There is an urgent need for more information and data to have a better understanding of drug impairment including specific amounts in the body, how often drug-impaired driving is occurring and the implications for traffic safety. The better, and faster, that we have data on this problem, the better our ability to combat it will be. In the meantime, what is painfully certain is that alcohol impairment of drivers continues to be the largest single contributor to traffic fatalities in the United States.[44]

## Additional Actions to Reduce Motor Vehicle Crash Fatalities

In addition to the commonsense solutions provided above, additional actions are at hand that can protect the public from the threat and scourge of alcohol impaired driving.

### Ensure the Safe Development and Deployment of Autonomous Vehicles

Advocates believes that autonomous vehicles (AVs) have the potential to make meaningful and lasting reductions in the number of deaths and injuries that occur each year on our Nation's roads, including those involving a drunk driver. However, deploying AVs before they can be safely operated on public roads and without government oversight, industry accountability and transparency for consumers is not only irresponsible and ill-advised, but it will also substantially reduce public confidence in this new technology.

Numerous public opinion polls show strong public skepticism and reticence about AVs.[45] Those doubts are warranted based on recent crashes as well as the past conduct of automakers. Over the last few years, automakers have hidden from the American public and regulators safety defects which have led to numerous unacceptable and unnecessary deaths and injuries and the recall of tens of millions of vehicles.[46] Consumer acceptance of AV technology is crucial to its success and to fully realizing its lifesaving potential. Right now families know that when they go into auto showrooms to buy a new car, the federal government has protections in place to ensure their safety. Similar oversight and regulation are needed for AVs to both assure and safeguard consumers, especially when considering the recent auto industry history of defects and cover-ups.

The current hype and artificial urgency to deploy immature AVs is disconnected from public opinion as well as the reality that serious and fatal crashes have revealed flaws in this still developing technology. On May 7, 2016, in Williston, Florida, a Tesla Model S on "Autopilot" struck and passed beneath a semitrailer killing the driver.[47] On January 22, 2018, in Culver City, California, another Tesla Model S operating on "Autopilot" collided with a parked fire truck that was responding to the scene of a separate crash.[48] Remarkably, neither this Tesla driver nor any first responders were injured.[49] On March 18, 2018, in Tempe, Arizona, an Uber test vehicle operating on self-driving mode struck and killed a pedestrian walking with a bicycle.[50] Then, just a few days later on March 23, 2018, in Mountain View, California, a Tesla Model X operating on "Autopilot" collided with a safety barrier resulting in the death of the driver.[51] According to the NTSB preliminary report on the crash, the vehicle was being operated under "Autopilot", had moved out of the lane of travel on its own and accelerated to 70 miles-per-hour (MPH) before colliding with the barrier.[52] The collision and subsequent intense fire closed the freeway for at least five hours.[53] On May 29, 2018, a Tesla Model S operating on "Autopilot"

struck a parked police vehicle in Laguna Beach, California.[54] The NTSB has investigated or is investigating a number of these crashes[55] including another crash involving a Tesla vehicle that happened just this month.[56]

In addition to the crashes that have already occurred involving autonomous systems, data accumulated from the limited miles traveled also paints an alarming picture. In 2017, the latest year for which final data is available, on average a person was killed in a traffic collision every 86.2 million miles traveled on U.S. roads.[57] Before the fatal crash in Arizona, Uber had reportedly logged two million autonomous miles as of the end of 2017 and was predicted to accrue another one million miles over the next 100 days.[58] Based on a simple evaluation of this data, the autonomous Uber had one fatality in three million miles; that is a fatality rate 28 times that of human drivers. This analysis highlights just how little proof there is that these systems are safe. While it must be stated that the Uber crash is a single data point and may not be necessarily indicative of future performance statistically, if we are going to ignore this data point, then AV manufacturers must likewise stop touting the millions of miles their AVs have driven as evidence of their safety. The fact is that the industry has yet to prove the safety of these systems and has yet to even agree upon a metric or method for comparing the safety of these systems. Nonetheless, they are strongly pushing to allow these vehicles into showrooms and onto the roads. Moreover, these numbers pale in comparison to the more than three *trillion* miles traveled by human drivers on U.S. roads each year.[59]

Rushing the technology to market under the guise of advancing safety is not only reckless but will ultimately prove deadly. While in the future AVs could be an essential component of reducing crashes due to driver misjudgment, error, or blatant disregard for the rules of the road,

including drinking and driving, we must not simply replace "human error" with "computer error." For the benefits of AV technology to be realized, Congress and the U.S. DOT must: require minimum levels for AV safety performance; establish strong public safeguards including a vision standard, a cybersecurity standard, a driver engagement standard for Level 2 and 3 AVs, and an electronics performance safety standard; and, require robust reporting, data collection and transparency to assess the on-road performance of AVs. Advocates looks forward to working with the Subcommittee to accomplish this goal in furtherance of reducing, and even eliminating, impaired driving fatalities.

**Facilitate Connected Vehicle Technology**

Connected vehicle technologies which allow a vehicle to send and receive communications with other vehicles (vehicle-to-vehicle (V2V)) and the infrastructure (vehicle-to-infrastructure (V2I)) can assist vehicles and operators to prevent or mitigate a crash with a drunk driver. These messages can relay information ranging from the relative location and direction of motion of other vehicles to warning messages that traffic lights are about to change or adverse weather conditions are soon to be encountered. For instance, V2V communication can provide safety applications for ADAS such as Left Turn Assist (LTA) and Forward Collision Warning (FCW). LTA warns drivers to the presence of oncoming, opposite-direction traffic when attempting a left turn. FCW warns drivers of stopped, slowing or slower vehicles ahead.

In a 2017 Notice of Proposed Rulemaking to require V2V technology, NHTSA noted that "[b]ecause of V2V's ability to provide vehicles with information beyond a vehicle's range of perception, V2V is the only source of information that supports applications like Intersection Movement Assist (IMA) and Left Turn Assist (LTA). These applications have the unique ability to address intersection crashes, which are among the most deadly crashes that drivers currently

face in the U.S."[60] Advocates filed comments in support of requiring V2V because of the technology's ability to help prevent serious crashes.[61] However, despite the identified safety benefits of V2V technology, this rule is languishing at DOT.

**Enhance Pedestrian, Bicyclist and Vulnerable Road User Safety**

Pedestrians and bicyclists are also vulnerable to impaired drivers. There are ways to mitigate injuries so that being hit by a car does not have to be a death sentence. Advocates and other safety groups have been urging Congress to require NHTSA to issue a safety standard for the hood and bumper areas of motor vehicles in order to reduce the severity of injuries suffered by pedestrians, bicyclists and other vulnerable roads users that frequently result in death and lifelong disabilities. Such a standard has been in place in Europe for years.[62] Just as added padding and restraint systems provide occupant protection inside the vehicle in the event of a crash, design improvements to the hood and bumper, which are already available on some makes and models sold in the U.S., can afford pedestrians, bicyclists and other road users protection on the outside of the vehicle in the event of a crash.

Improving the visibility of vulnerable road users can also reap measurable safety benefits. According to IIHS, just over half of the vehicle models the organization evaluated in 2018 are available with headlights that do just an "adequate job of lighting the road at night."[63] However, IIHS noted that most "good-rated" headlights are optional or bundled with features that can raise the price of the vehicle.[64] Headlights are one of the most effective crash avoidance equipment on a vehicle.[65] As such, Congress should direct NHTSA to upgrade the outdated standard for headlights by a near-term certain date. They can also help to assure that AVs can properly "see" the roadway, signage, stop signals, and off-road stopping space.

Moreover, our Nation's infrastructure is crumbling. According to the 2017 Infrastructure Report Card from the American Society of Civil Engineers, America's roads receive a grade of "D" and bridges are given a grade of "C+".[66] The Federal Highway Administration (FHWA) estimates that $142 billion in capital investment would be needed on an annual basis over the next 20 years to vastly improve conditions and performance of our Nation's road and bridges.[67] Repairing infrastructure will bolster public safety and help to prevent crashes. As part of these upgrades, federal funding should be allocated to roadway safety infrastructure improvements such as physical barriers that separate vehicular traffic from pedestrians, bicyclists and other vulnerable road users. These barriers and other such investments can help to prevent drunk drivers from killing innocent road users.

**Update the New Car Assessment Program**

While serving as the Administrator of NHTSA, I established the New Car Assessment Program (NCAP) which is celebrating its 40th anniversary this year. By any measure NCAP has been exceedingly successful. This program of crashing testing vehicles and disclosing the results by make and model has been emulated throughout the world and has provided necessary safety information to consumers for decades. NCAP is an invaluable tool in helping to ensure Americans have the information they need in order to purchase safe vehicles that will protect them and their families. As NHTSA stated last year, "[f]rom its inception, NCAP has played a significant role in educating consumers on vehicle safety as a key factor in their vehicle purchasing decisions."[68] In addition, the public disclosure of the safety performance of vehicles by make and model under this program serves as an important incentive for automakers to place the latest safety technologies into their vehicles.

NCAP can provide safety benefits by harnessing market forces to encourage the early adoption and implementation of new safety technologies that can help to prevent crashes involving an impaired driver. However, these benefits can be undercut when safety performance requirements are not established and when safety systems are not calculated as part of the star rating on which consumers rely most readily when comparing vehicles. Therefore, currently available technologies that have already been proven to have substantial safety benefits should be added to the rating program. These technologies should be part of the NCAP rating program to further facilitate their widespread dissemination into new vehicles. In addition, Advocates concurs with the NTSB recent recommendation that pedestrian safety injury mitigation systems including pedestrian collision avoidance systems be included in NCAP.[69] All of these upgrades to NCAP will enhance public safety by encouraging more automakers to place proven safety technologies into more vehicles.

**Improve the Safety of Vehicles Involved in a Drunk Driving Crash**

One of the most important defenses for motorists involved in a crash with a drunk driver is a safe car. Improving the safety of a vehicle involved in a crash with a drunk driver will save lives and prevent injuries. As noted above, tragically, children are often helpless victims of drunk driving crashes. Just last month, five children were killed in a crash in Maryland and reports indicate the driver was severely impaired and that none of the children were properly restrained.[70] Ensuring that all occupants including children are properly restrained improves crash survivability. Unfortunately, NHTSA has yet to issue a rule requiring rear safety belt reminders in all vehicles despite being required to so by Congress in the 2012 Moving Ahead for Progress in the 21st Century (MAP-21) Act.[71] Rear safety belt reminders are available on a number of vehicles here

in the United States and are standard equipment on several models tested by Euro NCAP.[72] These systems increase safety belt use and should be standard equipment in all vehicles.

Furthermore, vehicle occupants, especially children, can suffer serious injury or death in crashes when a vehicle is struck on the far side from where they are seated. The collision does not activate the airbags where the child is seated when s/he is seated in the opposite side of a side impact crash. As a result, the child can strike the closest side of the vehicle or other occupants seated next to them. Yet, currently there is not a federal motor vehicle safety standard for these types of far side impact crashes. Advocates urges Congress to direct NHTSA to issue such a safety standard.

**Expand the National Priority Safety Program**

The National Priority Safety Program, reauthorized by the Fixing America's Surface Transportation (FAST) Act in 2015, provides federal funding to the states through grants administered by NHTSA for activities that can reduce deaths and injuries suffered on our Nation's roads.[73] The program provides grants for the following safety priorities: occupant protection; state traffic safety improvements; impaired driving; motorcycle safety; distracted driving; and, graduated driver licensing (GDL).[74] As discussed above, Advocates continues to strongly support and encourage the enactment of state statutes that require the installation of IIDs for all offenders convicted of impaired driving. When an intoxicated driver gets behind the wheel and causes a crash, one of the most important protections for the innocent victims of that crash is a safety belt. However, a safety belt is only effective when it is worn by an occupant. In fact, nearly half of all passenger vehicle occupants killed were not buckled when restraint use was known.[75] Therefore, Congress should establish an additional grant when it reauthorizes the

National Priority Safety Program to encourage states to enact safety belt laws that are subject to primary enforcement and apply to all occupants followed by a withholding of federal funding for states that fail to enact these lifesaving statutes. These laws, which allow law enforcement officers to cite occupants for not wearing a safety belt without having to first observe another traffic violation such, as speeding and red light running, have been shown to increase safety belt usage.[76] Currently, only 19 states and the District of Columbia have all-occupant primary enforcement safety belt laws.[77] Ensuring that all occupants in a vehicle are wearing safety belts is a critical component to helping them survive a crash with a drunk driver.

## Conclusion

Far too many lives are lost and families destroyed by the senseless and preventable crime of operating a vehicle while impaired. Deaths caused by drunk driving can be reduced with bold federal action, wider use of proven safety technologies both in and outside a vehicle, enactment of proven state laws, and aggressive and enhanced law enforcement. By deploying all of these known sensible solutions we can once again make significant progress in reducing deadly drunk driving crashes. Thank you for the invitation to testify before you today.

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April 12, 2019

The Honorable Jan Schakowsky
Chair
Committee on Energy and Commerce
Consumer Protection and Commerce Subcommittee
U.S. House of Representatives
Washington, D.C. 20515

The Honorable Cathy McMorris Rodgers
Ranking Member
Committee on Energy and Commerce
Consumer Protection and Commerce Subcommittee
U.S. House of Representatives
Washington, D.C. 20515

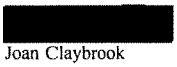
Dear Chairwoman Schakowsky and Ranking Member McMorris Rodgers:

Thank you for the opportunity to testify before the Subcommittee for the hearing entitled "Enhancing Vehicle Technology to Prevent Drunk Driving" on March 14, 2019.

I respectfully request that the two attached articles from the *Washington Post* and *The Verge* be included in the hearing record as an addendum to my written testimony. The articles describe technology that may soon be placed into vehicles that can detect if a driver is impaired and safely guide the vehicle to the side of the road. While this is no way an endorsement of the system described in the articles, it is an excellent example of the ability of technology to curb the scourge of drunk driving.

I look forward to continuing to work with the Subcommittee to reduce the needless deaths and injuries caused by drunk drivers that occur on our Nation's roads every day. Thank for your attention to this matter.

Sincerely,



Joan Claybrook
Advocates' Board Member
President Emeritus of Public Citizen, and
Former Administrator, National Highway Traffic Safety Administration

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The Washington Post

**Transportation**

# Volvo says in-car cameras will monitor drivers and take action to prevent distracted or impaired driving

## The company said the move was part of its Vision 2020 safety campaign to reduce serious injuries and fatalities in its vehicles

By Fredrick Kunkle
March 20

Volvo plans to install cameras in its vehicles that will monitor drivers for signs of distracted or impaired driving and take action if it appears that a driver's behavior becomes dangerous.

The Swedish automaker, which recently announced that it would limit the top speeds of its cars as a way of making highways safer, said Wednesday the cameras would be part of a system that would slow the vehicles and "safely park" them on the side of the road if they detected that a driver was becoming incapacitated or if the driver's attention had lapsed for a long time. The technology would also summon help from its 24/7 assistance center.

The announcement -- though welcomed as a possible step toward reducing traffic deaths -- raised a host of questions about civil rights, not to mention operational details about technology that is both making judgments about a person's behavior and possibly seizing control of his vehicle.

Jay Stanley, a senior policy analyst at the American Civil Liberties Union (ACLU), said he sees parallels to the use of data recorders in vehicles that function somewhat like the black boxes in airliners. The devices continuously record and write over data about the vehicle's speed and other factors. In the event of a crash, however, the data recorders preserve a snapshot of data in the moments before impact.

"My assumption is that auto safety advocates, police, etc. are going to want that data available to them after crashes. That means, in some ways, that the camera becomes not just something helping you out, but potentially an eye of the state," Stanley said.

Volvo should be transparent from the first about what the camera would monitor and how, right down to the software coding that would control the devices, and the public should have a say in how the information will be used, Stanley said.

"I think people should have as much control as possible over what's being collected, how it's being shared, and who it's being shared with," Stanley said. "We want these devices to be working on our behalf, not as snitches. No one wants a snitch looking over their shoulder all the time, a robotic snitch."

Volvo's new technology will focus on visual alertness -- such as eye movements, pupil reactions and scanning behavior -- as well as overall reaction times and other control-related behavior to assess the driver's condition, a company spokesman said in an email. He also said no data will be stored and nothing would only be shared with owner's consent.

"We take the privacy of our customers very seriously," he said. "We are talking about addressing behavior for the safety of our drivers, not being an extension of law enforcement."

The Governors Highway Safety Association (GHSA) expressed guarded optimism about the development, saying driver-assist technology has the potential to make streets and highways safer. But the GHSA also said people already have the ability to avoid driving while distracted or impaired and shouldn't have to wait for a high-tech solution.

"As new technology advances, it's important to remember that drivers are already equipped with a powerful technology tool – their brain – to stay sober and focused while behind the wheel," a spokeswoman said.

Volvo, whose announcement was covered by the Verge and other tech news media, said the move was part of its Vision 2020 safety campaign to reduce serious injuries and fatalities in its vehicles. Earlier this month, Volvo said it would limit the top speed in its vehicles to a little more than 112 mph.

The efforts fall in line with initiatives in the United States and other countries such as Vision Zero to find ways to reduce traffic deaths, particularly among vulnerable users such as pedestrians and bicyclists.

Stanley, who bicycles, said the need for strong measures to combat impaired and distracted driving are on display all the time, but that doesn't mean that civil rights concerns have to be sacrificed to achieve greater safety.

"I don't need any convincing of the dangers of distracted driving I see it every day. I live in terror of it every day," he said. But civil rights can be addressed, too, even as the places that people can be free of monitoring seem to be shrinking.

"I do think the walls are closing in on us with new monitoring mechanisms surrounding us at every turn," Stanley said. "Some of those monitoring systems may be justified, but may of them are not, and we need to ask careful questions about each new one."

*--This posting has been updated to correct the top speed limit.*

**Fredrick Kunkle**
Fredrick Kunkle runs the Tripping blog, writing about the experience of travel. He has also covered politics, courts, police, and local government in Maryland and Virginia. Follow

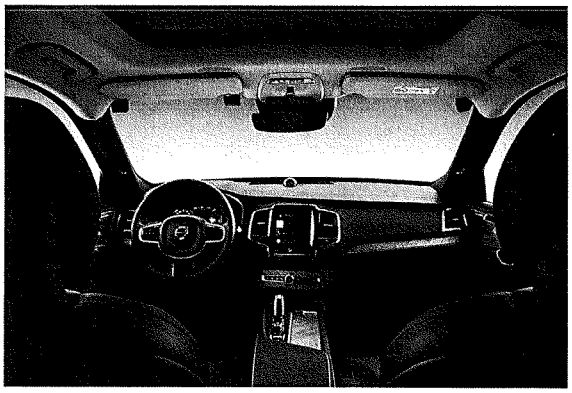
THE VERGE

TECH \ TRANSPORTATION \ CARS \ 10

# Volvo will use in-car cameras to combat drunk and distracted driving

*If you're drunk or distracted, the car could intervene by actively slowing down and safely parking the car*

By Andrew J. Hawkins | @andyjayhawk | Mar 20, 2019, 12:12pm EDT



Volvo said on Wednesday it will use cameras installed inside its vehicles to monitor driver behavior and intervene if the driver appears to be drunk or distracted. It's a risky move by an automaker, even one with a reputation for safety like Volvo, which could raise concerns among privacy advocates.

Volvo's in-car cameras will monitor eye movements to gauge driver distraction and / or intoxication. If a driver looks away for a period of time, such as at a smartphone, or fails to keep their hands on the steering wheel, a representative from Volvo's on-call assistance centers will call them to check in. Drivers who aren't watching the road, or even have their eyes closed, will be warned as well. If they don't respond, the car will slow and even stop. The system will roll-out to all Volvo cars by early 2020.

## THIS COULD RAISE CONCERNS AMONG PRIVACY ADVOCATES

This follows Volvo's recent announcement that it will be limiting the top speed on all of its vehicles to 180 km/h (112 mph) in a bid to reduce traffic fatalities. Volvo is framing these new policies as key components in its Vision 2020 goal, in which no one is killed or seriously injured in a Volvo vehicle by 2020. Over the years, the company built its reputation on safety and quirky designs, and today's announcement is meant to underline that.

"When it comes to safety, our aim is to avoid accidents altogether rather than limit the impact when an accident is imminent and unavoidable," Henrik Green, senior vice president for research and development at Volvo Car Group, said in a statement. "In this case, cameras will monitor for behavior that may lead to serious injury or death."

The use of in-car cameras to monitor drivers is not completely unprecedented. Cadillac uses infrared cameras facing the driver to power its advanced driver assist system, Super Cruise. The camera tracks the driver's eye movements, allowing for a "hands-free" driving experience. If the driver's attention wanders, Super Cruise uses an escalating series of audible and vibrating alerts to ensure the driver keeps their eyes on the road.

As cameras proliferate in the name of safety, there's a real chance they can be misused to invade privacy. At an event in Sweden Wednesday, the company preemptively dismissed this criticism by likening it to early objection to seatbelt laws.

**Peter Campbell**
@Petercampbell1

Replying to @Petercampbell1
Volvo knows it will face "Big Brother" objections - here are some of the things people said in 1959 when it introduced seat belts:

18 10:36 AM - Mar 20, 2019

See Peter Campbell's other Tweets

Automakers are already collecting lots of information from your car today, but mostly for vehicle analytics. GM has said that the camera in its Cadillac cars isn't recording anything; it's just a buffered video feed to make sure Super Cruise works as it should.

Volvo didn't respond to questions about access to the vehicle's camera, but in a statement clarified that the exact technical setup of the camera has yet to be decided.

"With the cameras, Volvo aims to collect data only in the ambition to make its cars safer and only the data that is required for the systems," a spokesperson said in an email. "The cameras will not record video and no data will be gathered without the user's consent. Exact technical setup is yet to be determined."

***Update March 20th, 1:18PM ET*** *to include statement from a Volvo spokesperson regarding privacy concerns.*

Ms. SCHAKOWSKY. The gentlewoman yields back.

And now, Mr. Kelly, you are recognized for 5 minutes.

**STATEMENT OF DAVID KELLY**

Mr. KELLY. Good morning, Madam Chair, Ranking Member McMorris Rodgers, members of the subcommittee. Thank you for the invitation to appear before you today to discuss an issue that I have dedicated most of my professional career towards, reducing drunk driving.

My name is David Kelly. I am the executive director of the Coalition of Ignition Interlock Manufacturers.

I do want to thank Representative Dingell for the leadership that you have shown with your bill. I can tell you from firsthand experience that the family really appreciates what you have done and the support that you have given them. So, I thank you for that.

The Coalition is composed of the Nation's leading companies that manufacture ignition interlock devices. These devices prohibit alcohol-impaired drivers from starting their vehicle. We combine our members' expertise, innovation, and experience to speak with one voice to reduce alcohol-related vehicle fatalities.

Ignition interlocks do what no other technology available today does. They stop drunk drivers from starting their vehicle. An ignition interlock device is a breathalyzer, just like this, that is installed in a drunk driver offender's vehicle to prevent drinking and driving.

Interlocks must meet specific standards that are set by NHTSA. All of the breath test data is stored in the device and is sent to the monitoring agency that is subscribed by that State.

Interlocks are a cost-effective and innovative solution designed to keep our public roadways safe. At a cost of less than $3 per day, paid for by the offender, interlocks provide a safety blanket for the cost of a cup of coffee, while freeing up law enforcement to pursue other crimes.

The supporters of ignition interlocks are a who's who in traffic safety: MADD, AAA, Advocates, the Alliance for Automobile Manufacturers, American Trauma Society, CDC, the Governors Highway Safety Association, the Insurance Institute for Highway Safety, the National Safety Council, Responsibility.org, just to name a few. All of these organizations actively support ignition interlock devices and first-offender laws.

Many convicted drunk drivers, however, continue to drive on a suspended license because they must in order to keep their jobs, take care of their families, or continue with school. Interlocks provide an opportunity for offenders to continue to drive legally and safely to successfully get on with their lives.

The Coalition works with policymakers across the country to provide the latest, credible, factual information on ignition interlock devices. Our members are at the forefront of effective ignition interlock programs in every State to deploy this lifesaving technology. According to MADD, over the last decade, interlocks have stopped 2.7 million attempts to drive drunk—2.7 million over the last decade.

Our challenge is to get all 50 States to adopt first-offender ignition interlock laws. Currently, 32 States have first-offender laws on

the books, and we are working with the remaining 18 States to pass first-offender ignition interlock laws.

However, we also advocate for other improvements to State laws. This would include an immediate reinstatement measure where you can get your driving privileges the day after you get arrested or compliance-based removal where you do not have the device removed from your vehicle until you can demonstrate a changed behavior and a 30-day—60-day, depending on State law—change of behavior where you have an alcohol-free experience with the device.

Some of our cameras have cameras, have GPS. We have lots of advanced technology in the devices. So, this is a lot of technology in a very small handset.

Currently, States that have passed first-offender ignition interlock laws should be awarded an incentive grant from NHTSA. That was authorized in the last highway bill. However, the NHTSA rules for awarding these grants are needlessly complicated and inflexible. As a result, only seven of the 32 States with first-offender laws have even qualified for the grant money. We are hoping to streamline that process in the next authorization.

One of the other things that we need to think about in the next authorization is law enforcement, providing them more funds, as has been talked about, and also looking at how we are going to get more arrests. We know drunk-driving arrests are down over the past decade. We need to reverse this trend.

There are other technologies being developed and supported by many in the safety community. While these technologies hold promise, it is important to note that the only commercially available technology that exists today to prevent an impaired driver from starting their vehicle is the ignition interlock. Technology will continue to evolve, including in the interlock industry. As a safety community, we must be prepared to adapt to emerging technologies. However, until they are ready to be deployed, we can't forget what is proven and will likely be the only technology available to prevent drunk driving for the foreseeable future.

Thank you.

[The prepared statement of Mr. Kelly follows:]

STATEMENT BY DAVID KELLY, EXECUTIVE DIRECTOR
COALITION OF IGNITION INTERLOCK MANUFACTURERS

ENERGY & COMMERCE CONSUMER PROTECTION
AND COMMERCE SUBCOMMITTEE

HEARING ON ENHANCING VEHICLE TECHNOLOGY
TO PREVENT DRUNK DRIVING

MARCH 14, 2019

Chairman Schakowsky, Ranking Member McMorris Rodgers, members of the subcommittee, thank you for the invitation to appear before you today to discuss an issue that I have dedicated most of my professional career towards – reducing drunk driving. I am David Kelly, the Executive Director of the Coalition of Ignition Interlock Manufacturers (CIIM).

CIIM is composed of the nation's leading companies that manufacture ignition interlock devices. These devices prohibit alcohol-impaired persons from starting their vehicle. Our shared goal is to provide state administrators, courts, and policy makers the tools necessary to keep our roads and highways safe from drunk drivers. We combine our member's expertise, innovation, and experience to speak with one voice to reduce vehicle-related fatalities caused by alcohol-impaired drivers. Our voice brings credible, factual information on ignition interlock devices to public policy discussions.

Ignition interlocks do what no other technology available today does — they stop drunk drivers from starting their vehicles. An ignition interlock device is a breathalyzer about the size of a cell phone that is installed in a drunk driving offender's car to prevent drinking and driving. Interlocks must meet specific federal standards set by NHTSA. A motorist is required to blow into the device's mouthpiece to test their Breath Alcohol Concentration (BrAC) before starting their car. If the BrAC exceeds the state's limit, the vehicle will not start until alcohol is no longer detected in a breath sample. All breath test data is stored in the device and sent to the monitoring agency that ordered its installation, such as the courts, DMV or a probation officer.

Ignition interlocks are a cost-effective and innovative solution designed to keep our public roadways safe. At a cost of less than $3 per day, paid for by the offender, interlocks provide a safety blanket for the cost of a cup of coffee while freeing up law enforcement to pursue other crimes.

The supporters of ignition interlocks are a who's who in traffic safety – MADD, AAA,

Advocates for Highway and Auto Safety, Alliance of Automobile Manufacturers, American Trauma Society, Centers for Disease Control and Prevention, Governors Highway Safety Association, Insurance Institute for Highway Safety, International Association of Chiefs of Police, National Safety Council and the National Transportation Safety Board.

Studies show that there are nearly 300,000 incidences of drunk driving every day[1], but fewer than 4,000 people are arrested. On top of that, it is estimated that first-time drunk driving offenders are serious offenders and drive drunk at least 80 times before they are finally arrested[2]. Additionally, suspending driver's licenses won't keep him or her off the roads as 75% will drive unlicensed and uninsured[3]. Many convicted drunk drivers continue to drive because they have to in order to keep their jobs, take care of their families or continue with school. Ignition interlocks provide an opportunity for offenders to retain their driving privileges. In doing so, they can drive safely, and successfully get on with their lives.

The Coalition works with policy makers in every state to provide the latest, credible, factual information on ignition interlock devices. Our members are at the forefront of effective ignition interlock programs in every state to deploy this lifesaving technology. Over the last decade, ignition interlocks have stopped over 2.7 million attempts to drive drunk[4].

This data proves ignition interlocks are a cost-effective and proven solution that reduces drunk driving recidivism to keep our nation's roads and highways safe for the millions of other motorists who share them. Imagine how many more drunk driving incidents could be prevented and lives saved if every state adopts all-offender interlock laws. We know ignition interlocks work and they are available today.

Our challenge is to get all fifty states to adopt first offender ignition interlock laws. Currently, thirty-two states have first offender laws on the books and we are working with the remaining eighteen states to pass first offender ignition interlock laws. Additionally, we stay in touch with those first offender states to advocate for improvements in their laws to get devices on the cars sooner. This includes an immediate reinstatement measure, where an offender can get an ignition interlock on their car the day after their drunk driving arrest, instead of waiting the sixty or

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[1] Centers for Disease Control and Prevention. "Alcohol-Impaired Driving Among Adults — United States, 2012." Morbidity and Mortality Weekly Report. August 7, 2015 / 64(30);814-817. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6430a2.htm

[2] Arrest data: Federal Bureau of Investigation, "Crime in the United States: 2014" https://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2014/crime-in-the-u.s.-2014/tables/table-29 Incidence data: Centers for Disease Control and Prevention. "Alcohol-Impaired Driving Among Adults — United States, 2012." Morbidity and Mortality Weekly Report. August 7, 2015 / 64(30);814-817. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6430a2.htm

[3] (Peck, R.C., Wilson, R. J., and Sutton, L. 1995. "Driver license strategies for controlling the persistent DUI offender, Strategies for Dealing with the intent Drinking Driver." Transportation Research Board, Transportation Research Circular No. 437. Washington, D.C. National Research Council: 48-49 and Beck, KH, et al. "Effects of Ignition Interlock License Restrictions on Drivers with Multiple Alcohol Offenses: A Randomized Trial in Maryland." American Journal of Public Health, 89 vol. 11 (1999): 1696-1700.)

[4] https://www.madd.org/press-release/ignition-interlocks-prevented-354372-drunk-driving-attempts-in-2017/

ninety days until their court date. We are also continuing to improve the ways our devices report on driver behavior when using the ignition interlock, including the use of cameras, and other advanced technologies.

We work with NHTSA to make sure their directives to the states on ignition interlock laws are clear. Currently, states that pass first offender ignition interlock laws are to be awarded an incentive grant. However, those directives are needlessly complicated and inflexible. As a result, only seven of the thirty-two states with first offender laws have even qualified for the grant money. Our coalition is working with the committees of jurisdiction in the House and Senate to improve the terms of the grant program and perhaps increase the dollar amount of the grants going to the states. The legislative vehicle will be the reauthorization of the highway bill, currently known as the FAST ACT.

Another issue that Congress should address in the next authorization is the decline in alcohol-related arrests over the past decade. As a society, we have asked our law enforcement partners to shoulder much more responsibility than ever before. They are our greatest partners in this fight to drive down traffic fatalities. Although this is outside this committee's jurisdiction, Congress should consider adopting a new incentive grant program specifically for law enforcement activities.

We recognize there are other technologies being developed and supported by many in the safety community. While these technologies hold promise, it is important to note that the only commercially available technology that exists today to prevent an impaired driver from starting their vehicle is the ignition interlock. Technology will continue to evolve, including in the interlock industry. As a safety community, we must be prepared to adapt to emerging technologies. However, until they are ready to be deployed, we can't forget what has already been proven to work and will likely be the only technology available to prevent drunk driving for the foreseeable future.

So, as we battle this epidemic, it's important for lawmakers to remember that it's appropriate to punish offenders for their crimes because drunk driving is a crime. But I believe it's equally if not more important to make sure that we're protecting the public and the innocent people who are driving on the same roads as drunk driving offenders. If they're still going to drive, either legally or illegally, we have a sacred duty to protect the public with the best available technology.

Ms. SCHAKOWSKY. Thank you so much.

And now, we will begin 5 minutes of Member questions, and I will recognize myself to begin.

I wanted to thank you, Ms. Witty, for the dedication that you have had over the years now and your compelling story about your daughter. Moms, everybody knows moms, and I'm just wondering, the No. 1 priority, obviously, is to stop drunk drivers. Is your No. 1 priority in that category that solutions like DADSS are necessary?

Ms. WITTY. Yes, DADSS needs to be commercialized and deployed in a large fleet, so that more people hear about it. Safety just is not an option. We need to stop the killing.

Here she is. Here is my rock star.

And what a beautiful way to use technology. Like Representative Dingell said, why don't we use the technology? And so, yes.

Ms. SCHAKOWSKY. Thank you.

So, Mr. Strassburger, the technology being developed for the DADSS program shows some real potential for saving lives, but progress seems to have stalled. And I would like to hear more from you about the progress of the program.

Mr. STRASSBURGER. Thank you, Madam Chair.

Progress is anything but stalled. We have made significant progress with the breath-based technology, as I mentioned in my statement and in my testimony. We are targeting releasing the breath-based technology in 2020 for fleet applications.

I support and agree, and I think it is a constructive suggestion, that this technology be deployed in GSA vehicles, and would look forward to having a discussion about how we can make that happen, how that should be structured as quickly as possible. I agree that that would help further deployment.

Ms. SCHAKOWSKY. Can I just ask you a question?

Mr. STRASSBURGER. Yes.

Ms. SCHAKOWSKY. Can someone disconnect, not deploy—the driver I am talking about—I mean, is this something that can be overridden by the individual in the car?

Mr. STRASSBURGER. The design of DADSS is intended not to be overridden by the driver. And, in fact, our performance specifications are such that we would make that very difficult. However, we are looking at different operating scenarios where, under extreme circumstances, it might need to be overridden, and then, if it is, what followup action should be taken by the driver. For example, performance of the vehicle is degraded until they see a dealer to have the system restored, what have you.

Ms. SCHAKOWSKY. Let me talk to Ms. Claybrook, who has certainly been the lifelong advocate on auto safety. Do you have any concerns about the DADSS program or the compliance of or willingness of the industry to help move that forward?

Ms. CLAYBROOK. I don't know what is the matter with the industry on this issue. This issue came up when I was NHTSA Administrator in the 1970s. John DeLorean supported it in the 1970s and '80s on his experimental car, and he was a former General Motors executive. Now we are talking about this has been an active partnership since 2006. 2006, that is 13 years ago. Where is this system? It didn't take that long to produce airbags. Airbags are a lot

more complicated than this, a lot more complicated, and they cost a lot more. So, why isn't this system in every car? I do not understand that.

I think this committee should pass a law that requires NHTSA to issue a rule within 3 years to have them in every single car in America. What is the problem? We have so many people who drive drunk, and we can't figure out who they are one by one. If we wait until they kill somebody or harm somebody before a judge requires them to put this system in their car—and there are 18 States that still don't do that—it is just like a morass. Why not just do the simple thing?

And plus the fact they have to be wired into the car. The manufacturer should put them in with their wiring as standard equipment in every single car in America. If the DADSS system, then, further develops and we feel we can use that, then let's use that. But I don't understand this. It just is impossible. I mean, it is a killer. This is a killer, and the auto industry is fostering the deaths of these people, in my view.

Ms. SCHAKOWSKY. Let me quickly just get to Mr. Kelly. Is this a passive system? I am not quite understanding how this works.

Mr. KELLY. So, it is an active system. And so, there is a wire that would come out of the bottom of the handset that would go into the ignition system. So, as you turn the car, you take a test. When you pass the test, it completes the circuit and the car then starts.

Ms. SCHAKOWSKY. What if you don't do the test?

Mr. KELLY. The car doesn't start.

Ms. SCHAKOWSKY. Oh, OK. I understand. So, it is really not passive. You are required to do it?

Mr. KELLY. It is active.

Ms. SCHAKOWSKY. OK. I yield back. And now, I yield to our ranking member for 5 minutes.

Mrs. RODGERS. Thank you, Madam Chair.

Ms. Witty, I, too, want to thank you for sharing your daughter's story. It is heartbreaking, and I appreciate your being here today.

I wanted to hear more about MADD's work with self-driving vehicle technology companies. Do you believe that self-driving vehicles could help reduce the number of alcohol-related fatalities on our roadways?

Ms. WITTY. Absolutely, yes. We support self-driving vehicles. The problem is we don't know when that is going to be possible. That is in the future. The DADSS program is right now. We could do this. If DADSS was a top priority, it would be in cars, and we could save 7,000 lives a year. Yes, absolutely. AVs, wonderful, but it may be decades away. Now we have got this. Let's stop the killing and save the lives we can today.

Mrs. RODGERS. Are there any lessons we have learned from all the important work done by MADD and others to address drunk driving that you think would apply to drug-impaired driving?

Ms. WITTY. Absolutely, yes. Yes. It is frustrating for me because my daughter was killed be a teenager who was impaired on alcohol and marijuana both. Polydrug use is a huge issue. But, right now, we have the science to stop the drunk part, which they are still saying is the No. 1 killer. That is what worries me so. Often, you know, oh, we have stopped focusing on that. And the deaths are

rising, almost 11,000. So, let's keep our focus there and, also, deal with what is emerging with marijuana. The science is still not there.

Did that answer your question?

Mrs. RODGERS. Yes. Thank you.

Ms. WITTY. I mean, you can see it. I am like there she is. And there are so many stories that I meet; I see in the eyes that the grief is there. Why can't we stop this?

Mrs. RODGERS. Thank you.

Ms. WITTY. So, thank you.

Mrs. RODGERS. Mr. Kelly, 94 percent of traffic accidents are due to human error, which includes making the decision to drive while impaired, either after drinking, taking drugs, or both. We are hearing about technologies inside traditional cars, but how can new technologies, like self-driving vehicles, help improve roadway safety and reduce impaired driving?

Mr. KELLY. Thank you for the question.

I think, as we have heard today, self-driving vehicles are going to put the traffic safety community out of business, but it is going to be out of business in 20 years, in 30 years, in 40. Who knows where that is, where that technology is? And what we need to do, continue to work on that technology, continue to develop those technologies because they are very important.

A lot of the technologies that go into self-driving vehicles are already being implemented on sort of a one-by-one basis in vehicles today. Putting them all together to get a vehicle that works collectively is great, but we need to make sure that we are dealing with what we can deal with today. And that is one of the reasons that we are so passionate about ignition interlocks and getting more of them installed on vehicles.

Mrs. RODGERS. Part of the reason I asked the question is because in Washington State we are seeing a dramatic increase in the number of traffic accidents, traffic fatalities that do involve marijuana and other drugs.

And I wanted to ask, while you were at NHTSA, was drug-impaired driving a focus for the agency, and are there any lessons learned from drunk driving and what we have done to counter drunk driving that you think that we need to apply to drug-impaired driving or masking, which is mixing drugs and alcohol, that we should be thinking about here in Congress?

Mr. KELLY. Absolutely. Unfortunately, during my time at the agency, the drug-impaired driving debate was much similar to the drug-impaired driving debate of today. The discussion was focused around what is a legal standard for driving while impaired with marijuana, and that continues to be the big question within the drug-impaired driving community. How are we going to measure? How are we going to test? What is a legal limit? And there is still no data, no science, and it is frustrating that that discussion is the same.

One of the things that can be done, however, and as Helen alluded to, one of the things that can be done today, and the best thing that can be done today on drug-impaired driving is to continue in the enforcement of our current laws, continue enforcement of alcohol-impaired laws, get law enforcement out there. Because

with the poly use, we know that if the person has been smoking marijuana or taking other drugs, the odds are they have also been drinking. So, if you can get the impairment, you can get to the drugs. That is what can be done today.

Mrs. RODGERS. Thank you.

I will yield back my time. Thank you.

Ms. SCHAKOWSKY. The gentlewoman yields back. And now, I recognize Congressman Castor for 5 minutes.

Ms. CASTOR. Well, thank you, Madam Chair.

As a Floridian, this hearing is particularly timely because it is spring break time back home. And unfortunately, that also brings binge drinking and a spike in traffic crashes. Studies have shown that death tolls were 9 percent higher during spring break in spring break destinations, with more deaths among drivers under 25 and those traveling from out-of-State.

In Florida, drunk driving caused more than 15 crashes per day in March of last year. So, this spike in deaths is an unfortunate and ongoing problem. And I am not sure that interlock devices after DUI convictions is getting to this problem, especially folks who are driving rental cars.

So, Ms. Claybrook, you made it fairly clear you think that Congress should pass a law and that interlock devices should be mandated in all vehicles? Is that——

Ms. CLAYBROOK. I do believe that for several reasons. One is because they are not an irritant. I would prefer to have one that is sensitive to your touch. But, for now, if we can't get that immediately, I would say put in the interlock device.

Ms. CASTOR. OK.

Ms. CLAYBROOK. What it does is it reminds everybody that they are not supposed to drink and drive.

Ms. CASTOR. And how about the other witnesses? Do you agree?

Ms. WITTY. Me?

Ms. CASTOR. Yes, go ahead.

Ms. WITTY. I want to stop the killing. I want to do what it takes. So, if that is what it is going to take, then that is what I would be for. I don't want to meet another heartbroken person. So, I want it stopped.

Ms. CASTOR. And I really do appreciate you being here. I have two daughters myself.

Ms. WITTY. And I am a native Floridian.

Ms. CASTOR. So, you understand what happens at spring break then.

Ms. WITTY. Yes, I have been working in schools for 8 years down in Miami. So, yes, absolutely.

Ms. CASTOR. OK.

Mr. STRASSBURGER. Yes, in my written testimony I give some benefits estimates of various technology approaches, of various countermeasures. One of the conclusions that I make is that, if we are to make significant progress reversing the tide on drunk driving, we need vehicle-integrated technology. I am actually technology agnostic. We have a number of ideas here today between conventional interlocks, autonomous vehicles. I personally think DADSS is the technology that will get us there the fastest, but we need vehicle-integrated technology.

Ms. CASTOR. Thank you.

Mr. Kelly?

Mr. KELLY. And I think that one of the issues that we grapple with in trying to get ignition interlocks installed on vehicles for folks that are supposed to have them, I liken the idea of mandating interlocks back to when we had an ignition interlock system for seatbelts back in the '70s. I think that there needs to be a lot more work done sort of proactively for consumer education, for consumer acceptance. That experiment was around for a year before Congress, then, reversed itself because there was such a backlash. I think there needs to be more work done to sort or prime the pump to get some better consumer acceptance before we would go down that road.

Ms. CASTOR. OK.

Ms. CLAYBROOK. Could I comment on that?

Ms. CASTOR. Yes, and I want to ask you a related question, too. Back home in the Tampa Bay area, we have had this phenomenon that is growing where drunk drivers and drivers are now going the wrong way on the interstates. I mean, this has happened over and over again. People are like, why are you driving the wrong way on a bridge? Why are you going onto the interstate? And oftentimes, it is a drunk driver and they have already been convicted of drunk driving.

So, Ms. Claybrook, I mean, it is a similar issue. How do we get at that problem, too?

Ms. CLAYBROOK. Well, first of all, I hate to admit it, but I was around when the interlock was proposed and put into place. And I was working at the National Highway Traffic Safety Administration, and then, as a consumer advocate. The real issue was that it was very difficult sometimes to fasten the belts. It was often the passenger side belt, where you had your dog or your groceries that stopped the car from starting because the belt wasn't around your groceries.

So, there were a lot of other problems that are quite dissimilar from this. And this is very simple. You blow into it and you are on your way. So, it is far simpler than the other one. I think it does need a consumer information program to educate people, but most people are scared to death of drunk drivers. They don't want to be hit by a drunk driver, and they are going to support whatever it is that stops people from driving drunk and hurting them or their children. So, I don't see the public relations problem with this at all.

Ms. CASTOR. Thank you. I yield back.

Ms. SCHAKOWSKY. Congressman Burgess, I recognize you for 5 minutes.

Mr. BURGESS. Well, thank you.

And thanks to our witnesses for being here today.

Ms. Witty, I have a constituent who has a similar story to yours, unfortunately, which involved both alcohol and a positive qualitative test for marijuana in the driver. Because the blood alcohol level was below .08, no charges were filed.

So, here's a young man who was crossing in a crosswalk and hit by a Jeep at night. And mom came in to see me, distraught as you are, as you tell your story today. And her further question to me

is, why is it that when there are—she understands the .08 being the level, the legal limit. But if there is a confounding circumstance like a positive test for marijuana, a good defense attorney can make a case for, well, that could be remote, so it might not be active. I get that. But if there are those two things coupled with a death in an accident, that ought to be an automatic referral to a grand jury, and in this case it wasn't.

So, I guess my question really is, I am appreciative of trying to bring the technology into play and have it be helpful, but are we educating our local DAs, our State folks? Because drunk driving has been around for a while, but the imposition of, as you said, polypharmacy along with the alcohol really can confound the issue.

And I might just ask our two former Administrators, or Acting Administrator, is this something on which you focused during your time at the National Highway Traffic Safety Administration, helping the local DAs and the State officials? Most of these are State laws, the driving laws that are violated.

I have just got to tell you, it is heartbreaking that a mom comes in and says, "This is what happened and they didn't even prosecute."

Ms. CLAYBROOK. I didn't quite understand the nature of your question. Are you asking whether it should be lower than .08?

Mr. BURGESS. Well, .08 does not conform to the legal definition of driving impaired, but .08 plus a positive qualitative test for a metabolite of marijuana——

Ms. CLAYBROOK. Yes.

Mr. BURGESS [continuing]. Coupled with the death of someone in the accident sequence, those things to me should elevate that. The accident investigation said, well, alcohol was tested; it is below .08. No violation. Terribly sorry, sad accident. Everyone goes on about their business.

Ms. CLAYBROOK. Well, I certainly agree with you. I think that it should elevate it. But I don't think that perfection should stop the good. And so, I would step now as fast as possible to try and have a vehicle-integrated system, as Mr. Strassburger said the industry favors, not which one, but an integrated vehicle system to start. And there does need to be more development on how do you measure the drugs and, of course, also some pharmaceuticals that are a problem as well, and so, that are permissible. So, I think that that definitely needs it.

I was concerned about it when I was the Administrator. There wasn't as many drugs around, I have to say, when I was NHTSA Administrator. So, it wasn't the main focus. I was focused more on trying to get .08. It was then .10.

Mr. BURGESS. Sure. It came up again with—yes, ma'am, Ms. Witty?

Ms. WITTY. The thing is, I faced this with my daughter. The person who killed her was .09, but she was on marijuana. Well, that doesn't matter. And 20 years more, and it still is there. But what we have today is we have an empowered police force. A DRE, a drug recognition expert, can tell. I have worked with these officers. They can look at somebody and they can say what they are on and what it is. So, I would love to see an empowered police force that

is believed in court and that could be empowered in court. Because I have ridden with them.

Mr. BURGESS. Yes, I need to reclaim my time, not to cut you off——

Ms. WITTY. OK.

Mr. BURGESS [continuing]. But my time is limited.

Ms. WITTY. OK.

Mr. BURGESS. And the chairwoman is very aggressive about gaveling me.

[Laughter.]

We spend a lot of time in this committee—and I have got two former NHTSA Administrators—we spent a lot of time in this committee, the subcommittee, on airbags and the Takata airbag crisis, as you recall. We also spent time with the Chevrolet Cobalt and the ignition switch cutting off, so the airbag was not powered.

I have encountered a situation back home that I had not encountered before. And that is the placement of a fake airbag when an airbag is replaced, in this case after an accident, but I guess it could also occur if an airbag was recalled in one of these Takata sequences.

But here was a young woman, and the story is she was impaired, so it fits into this discussion. But the airbag did not deploy because the airbag was just junk. It was a shop rag and some wax and some electrical tape because the airbag had deployed on the car previously. They had fixed the damage. It had cost $1,500 to put a new airbag in. Nobody wants to make that expense. So, they go to a cut-rate shop that says, "We will get the sensor turned off," and as a consequence they put in something that looked like a module but was not a module. She hit a tree at 45 miles an hour, transected her aorta, and died.

So, I had not encountered that before. I don't know if the agency, if this is something that is appearing or this is just a one-off.

But, Madam Chairman, I will submit that in writing to you, because I know we don't have time to answer. But I hope we would spend some time talking about the airbag situation because we did not solve it 2 years ago when I was chairman.

Ms. CLAYBROOK. If I could just respond, Madam Chairman, just to say that, yes, there are examples of people doing that, but it is not very frequent. And so, I wouldn't focus on that in terms of whether or not these other systems would work well.

Mr. BURGESS. If we don't surveil, if we don't know the number, I mean——

Ms. CLAYBROOK. Well, there needs to be surveillance. And the insurance industry is also very helpful in that regard because they pay for the new airbag to be put in after the crash.

Mr. BURGESS. It didn't work out in this case.

Ms. SCHAKOWSKY. So, I am going to recognize Mr. Soto, yes, for 5 minutes for questioning.

Mr. SOTO. Thank you, Madam Chairwoman.

What a fascinating topic, and how technology is just evolving in so many areas of our society. You look at the original solutions to drunk driving, in addition to just not doing it. It was having designated drivers and taxis and the DC Metro, or SunRail back in our district. Now we have Uber, Lyft, and other ride shares that

contribute a lot to helping get those folks off the roads; driverless vehicles eventually. And now, we have the Driver Alcohol Detection System for Safety program.

And I really appreciate my colleague, Representative Castor, talking about, should it be a penalty for existing drunk drivers, an optional feature in cars, or should we go right into it and make it a standard feature, particularly if it was a push button?

And the idea that, could technology make drunk driving obsolete? It is just a fascinating possibility in the world we live in. And when you think about it, it would save all these lives of folks who are victims who get hit, but also save a lot of people from making a lot of bad mistakes and getting into the criminal justice system by being drunk drivers, not only from the injuries that they could sustain, but all the legal expenses and that our court systems deal with on a daily basis.

So, if we were to eventually have this technology to a level where it was standard equipment, and you simply, as an American, pushed the button, and your car doesn't start because you are over the limit, and we went nationwide with something like that, it would be great to hear from each of the panelists. What are the various concerns and issues that we should be contemplating and addressing to create a regime like that? And we will start from left to right, starting with Ms. Witty.

Ms. WITTY. The DADSS is what we would prefer for everyone because ignition interlock, we would agree with you then, the ignition interlock is more punitive and it makes the person work. So, exactly, the DADSS program would be passive unless you are breaking the law, exactly. Let's add hospitals to the saving the money.

Mr. SOTO. Sure.

Ms. WITTY. We wouldn't have the injuries and all those. So, as far as MADD is concerned, we see DADSS as what we would want installed because it is not there unless you are breaking the law.

Mr. SOTO. Sure.

Mr. Strassburger, what concerns? What do we have to address if we were to put together legislation eventually that would address that?

Mr. STRASSBURGER. So, the DADSS program has always been structured from the beginning to build consumer awareness and acceptance of the technology, in sync with the technology, so that there is a consumer pull, coupled with an industry push for the technology. I actually think we can get full penetration faster that way.

There may be two things that need to be taken into consideration with respect to a mandate. One is that we should not be picking technology winners and losers. We should be technology agnostic. And some of the technologies that we are talking about here today are good examples of why that should be.

The other thing I want to address is that, while I will, no surprise, disagree with former Administrator Claybrook, not hassling drivers who are not the problem, who don't see they are the problem, is a very important consideration. And seatbelt interlocks in the 1970s are very instructive.

Mr. SOTO. Thank you. And we can imagine just a push button where it turns or not, and your car doesn't start, for every driver.

It would be great to hear from you next, Ms. Claybrook, as well.

Ms. CLAYBROOK. Well, I think that the most important thing is for Congress to act. I think the people are just sick and tired of waiting and waiting and waiting. This has been going on since I was Administrator 40-plus years ago, and it is still going on today. And people are dying every single year. These deaths destroy families.

You know, Ms. Witty has risen to the height above it, but most families are so devastated, and particularly if it is the breadwinner. So, we should act, and if it means that we act as something less than perfect, let's do that, and then, let's make sure that we can get to DADSS. I hope that we could. That would be fine with me, and I think the Government has put a huge amount of money in it. The industry has put money into it. Let's finish the job.

Mr. SOTO. And Mr. Kelly?

Mr. KELLY. I think that in a perfect world what needs to be done, and one of the big landmines in sort of going with that type of program, is the public education. Look, nobody thinks they are a bad driver. Nobody thinks they are a drunk driver. It is always everybody else's fault. You know, you are the bad driver; you are the one that cut me off. It doesn't matter you were on your cell phone doing 30 miles an hour in the lefthand lane, right? But that is the mentality of the driver. And we need to do a lot more work to overcome that before we start thinking about mandating technology across every vehicle.

Ms. SCHAKOWSKY. The gentleman yields back. And I now recognize Representative Bucshon for 5 minutes.

Mr. BUCSHON. Well, thank you very much.

My wife's first cousin was killed on her first car date when she was 16, a drunk driver. So, this affects every family.

I was a cardiovascular and thoracic surgeon before, and obviously, in my role as treating trauma patients, I have seen many people who have been hit or, honestly, have been driving themselves drunk and have been injured. This is a critical problem, and I would agree that it is something that we probably have slowly tried to address, probably too slowly. And it appears there is technology now that there is no excuse really for not addressing this issue.

So, in that vein, Mr. Strassburger, when will the Driver Alcohol Detection Systems that you are working on be commercially available?

Mr. STRASSBURGER. As I mentioned both in my written testimony and my opening statement, we expect that, by 2020, we will be releasing the breath-based technology for fleet and accessory applications, and that by 2024——

Mr. BUCSHON. So, at that time, what you are saying is that you will release it, and I get that. There's a lot of technologies that are released, but, then, are not economically feasible. If you are going to add a thousand dollars to a $12,000 car, a lot of times for many people that is not economically feasible.

So what you are saying is, by 2020, this should be not only available and potentially installed in vehicles, but it will be economically feasible to install in all levels of vehicles, not just high-end vehicles?

Mr. STRASSBURGER. That is correct. The task that we took on back when the campaign to eliminate drunk driving launched was to demonstrate the commercial feasibility, viability, and assure the certainty of the technology. That has been our focus from day one.

Mr. BUCSHON. Yes.

Mr. STRASSBURGER. So, it is our intention that, if we can demonstrate feasibility, viability, and certainty, that it will be used.

Mr. BUCSHON. Great. And I do agree that—and some of you have talked about it—that you do, unfortunately and frustratingly, have to have consumer buy-in on these types of issues, because if you don't, people will go to the extremes to try to subvert them. They will have friends touch the ignition with their finger because they think they have had too much to drink, and then, they will hop in the seat. Or they will have a kid touch it, believe it or not. So, these types of things, we do have to have consumer buy-in and understanding. We also have to make ways that people can't get around these things, if we decide to do it, as we should.

Mr. Kelly, what are the particular challenges drug-impaired driving pose that alcohol-impaired driving does not?

Mr. KELLY. The biggest problem is setting the legal limit, to define what is impairment from a drug. And each drug is going to have a different—whether it is marijuana or whether it is prescription drugs, whatever it is, each impair differently. And setting a legal limit is probably the No. 1 challenge to try to define. Because as we talk about this in this setting, when it gets down to an enforcement perspective and in a prosecution perspective, judges and juries, they like per se levels. And that is the biggest challenge of getting these types of cases prosecuted.

Mr. BUCSHON. And, for example, in my district in Newburgh, Indiana, there was a sledding hill all the kids used, but they probably shouldn't. But they have been doing it for decades. It crosses a road, right? And so, a young lady, 16 years old, a couple of years ago, an impaired driver was coming down the road too quickly and hit her as she sledded across the road, where she shouldn't have been. But, you know, kids do crazy things. I have got four kids; I know this.

It turns out she blew zero on her breathalyzer test in the field, did have some field sobriety tests that said she was impaired. But it actually took the prosecutors and law enforcement months and months and months to finally prove that and convict her of reckless driving, essentially, being impaired. But it was a struggle, right, because there was no definable level of impairment. So, I would agree that that is a substantial challenge.

And when you see the level of use, I mean, some people have mentioned the data about how many high school kids are using this. We need to work on that.

So, are there other things, other than breathalyzers and other things, that we can do in vehicles that would help with this? I mean, it is one thing. Maybe we shouldn't be able to open the door, for example. Does anybody have an opinion on that? Even get in the car at all?

Ms. CLAYBROOK. Do what?

Mr. BUCSHON. You would have, on the outside of the car, you would have a detection system, and if you don't pass that, you can't even open the car door.

Ms. CLAYBROOK. Oh, I see.

Mr. BUCSHON. I don't know.

Ms. CLAYBROOK. I like that idea. I love technology.

Mr. BUCSHON. I mean, that is an extreme.

But, anyway, my time has expired. I appreciate your testimony. It is powerful. And, Ms. Witty, obviously, yours is very powerful testimony, and we need to take all these things into consideration and improve our systems.

Thank you.

Ms. SCHAKOWSKY. The gentleman yields back. And now, I will recognize Congressman McNerney for 5 minutes.

Mr. MCNERNEY. Well, I thank the Chair and the ranking member.

I thank the witnesses for really good, excellent testimony this morning.

Mr. Strassburger, could you give us an update on the test program, and specifically, how many cars are being tested?

Mr. STRASSBURGER. Yes. So, with the wonderful cooperation of the State of Virginia and James River Transportation, we are operating up to four vehicles out of two sites, the Norfolk Airport and the Richmond Airport. There is consideration being given to expanding the number of vehicles tested in what we call a naturalistic evaluation.

We will also, once we have OMB approval, be testing anywhere between 20 and 40 vehicles in different locations around the country that are representative of the extreme environmental and other environmental conditions that you would normally experience in a car. So, we are working on, we are actually doing shakedown testing of those vehicles right now in anticipation of OMB clearance, but we don't have that clearance yet.

Mr. MCNERNEY. So, about how many cars does it usually take for an automaker to adopt a new technology?

Mr. STRASSBURGER. Well, it depends on the technology and the test matrix, but, normally, a lot more than what we are testing right now. We are working on securing other evaluations, as I have mentioned.

Mr. MCNERNEY. Are you looking to partner with other States? Is California one of the States you are——

Mr. STRASSBURGER. California is not. They have not expressed an interest, but we would love to have them.

Mr. MCNERNEY. So, what are the obstacles that are keeping from expanding to those States?

Mr. STRASSBURGER. We will talk to any State that wants to talk to us about deploying vehicles. NHTSA has issued guidance to every State—that was, I think, back in 2016—that allows them to use their Federal grant funding for DADSS programs. So, I am open to talk to anyone, States or otherwise.

Mr. MCNERNEY. So, it sounded like your testimony showed you are expecting another 4-year extension of the DADSS testing, is that right?

Mr. STRASSBURGER. Not testing. There is, we estimate, another 4 years of research that we need to conduct to be able to release the DADSS derivative for privately owned vehicles, that is, the version that would go on every car and truck that a consumer would buy.

Mr. MCNERNEY. Ms. Claybrook, what do you think about that timeframe?

Ms. CLAYBROOK. Well, what amazes me is, when the auto industry wants to introduce a new technology, it is zip, it is done. On the autonomous cars, which are so much more complicated than what we are talking about today, they are pushing hard to get autonomous. They tried to push legislation through last year to get autonomous cars to be tested on the highway and to be sold very shortly thereafter.

So, I think that it is like a bureaucratic nightmare that we are experiencing here, and I see no reason why it is going to take this long to test such a simple system as this. And it is discouraging. It is discouraging to all the organizations that have been working on this for so many years, but it is like a slow walk. You know what I mean by that?

Mr. MCNERNEY. Right, right.

Ms. CLAYBROOK. So, I think it is time to get past the slow walk. And there is one body in this United States Government that can do, and that is the United States Congress.

Mr. MCNERNEY. Thank you for that.

I want to follow up a little bit on what Mr. Bucshon was talking about, universal impaired driving. There is no mechanical—I mean, obviously, the blood levels are all over the place for different substances. There is no mechanical test. Is it feasible to have a mechanical test that a driver would have to take before turning on the key, before the key would turn on the ignition?

Ms. CLAYBROOK. You mean for drugs?

Mr. MCNERNEY. For impairment.

Ms. CLAYBROOK. For impairment. I see.

Mr. STRASSBURGER. That actually has been looked at in the 1970s, for example, to measure your cognitive ability. That is something that we looked at. You would be given a string of numbers, for example.

Mr. MCNERNEY. Well, I think it is more important to have a reflex than a cognitive——

Mr. STRASSBURGER. But I think the approach was to look at your ability to drive a vehicle safely. And so, that one was looking at entering a string of numbers that were displayed on the screen. The problem with that is that most people couldn't, even if they were not impaired, complete that task.

[Laughter.]

Mr. MCNERNEY. OK.

Mr. KELLY. And I think that there have been some discussions around that as well. You know, impairment is impairment; let's define the impairment and let's try to test to the impairment. And that is one way to get around the legal limit levels. I know a lot of groups are talking about that, but action items there are very difficult to come by.

Mr. MCNERNEY. I yield back.

Ms. SCHAKOWSKY. The gentleman yields back. And now, I recognize Congressman Carter for 5 minutes.

Mr. CARTER. Thank you, Madam Chair.

And thank all of you for being here. What an important subject.

And, Ms. Witty, God bless you. Thank you so much for your testimony. We appreciate it.

Mr. Kelly, I am going to start with you. And you make a good point: We do need to do something, and obviously, as much as we can do about drunken driving. But your devices, you are not up to the point where you can use it for drug driving. Because what I want to discuss in my little bit of time here is the drug driving. So, you are not at that point yet? Yours is just with alcohol?

Mr. KELLY. The ignition interlock, yes, right now it is specific to alcohol. There are some testing devices that are out there that can detect marijuana, but it is the presence of marijuana, and that is when you link it back to the impairment level.

Mr. CARTER. So, there are devices out there that can actually monitor or measure for marijuana?

Mr. KELLY. It detects marijuana.

Mr. CARTER. Detects marijuana?

Mr. KELLY. Detects it. And there are some other companies that are looking at some research and some devices that would be able to detect other types of drugs as well, but it is just a strict pointer system, as opposed to saying, OK, well, now you are impaired. Especially with marijuana, marijuana, first of all, whether you smoke it, you vape it, it is an oil, it is an edible——

Mr. CARTER. Right, right.

Mr. KELLY [continuing]. It all is different.

Mr. CARTER. Right.

Mr. KELLY. And so, even just pointing to it, it was marijuana, it is difficult to say, OK, well, you know, was it a week ago——

Mr. CARTER. OK.

Mr. KELLY [continuing]. Or an hour ago?

Mr. CARTER. Yes, that is exactly right.

Ms. Witty, let me ask you. I understand that in your testimony, when I was reading it, it said that you support MADD——

Ms. WITTY. Yes.

Mr. CARTER [continuing]. And the work that they are doing with the National Highway Traffic Safety Administration to address drug driving. What do you want to see come out of that effort? I know you are not here representing MADD, but what are they looking for?

Ms. WITTY. Well, what is MADD looking for?

Mr. CARTER. In the way of monitoring for drug driving?

Ms. WITTY. For drug driving?

Mr. CARTER. Right.

Ms. WITTY. I am here to support MADD.

Mr. CARTER. OK.

Ms. WITTY. And we are working hard. We are working in tandem. The thing is, there are so many drugs. And what I hear from police officers is, we can determine impairment, but for a certain device to determine impairment is the question.

Mr. CARTER. Right.

Ms. WITTY. So, what happens is we know what determines impairment through the BAC of alcohol. So, that is something we know. The drugs, with the number of them and how they change so quickly, that is an emerging issue. So, yes, but we are right on it. We are drunk and drugged driving.

Mr. CARTER. OK. OK.

Ms. WITTY. So, absolutely.

Mr. CARTER. Absolutely. OK. Well, here is my point: I agree with Dr. Bucshon. I agree with Representative McNerney that we need some kind of universal device that would help us or universal solution.

Here is the point I want to make in full disclosure: I am absolutely, adamantly opposed to the recreational use of marijuana. Currently, I am the only pharmacist serving in Congress. And I will tell you, I consider it to be nothing more than a gateway drug. I am sorry, that is just my feeling. If that offends you, then that is something you will just have to deal with.

But let me tell you, right now, marijuana is a Schedule I drug. That means that it is for investigational use only. It cannot have research done on it. The DEA is failing the American public here by not letting research take place on marijuana. I would hope that MADD will address that.

We had an Attorney General who was going to address this, who was going to say that we have a Federal law that prohibits marijuana use. Yet, we have States going out legalizing the recreational use of marijuana. But that Attorney General is gone now. So, it is not being addressed.

This is something that needs to be addressed by the DEA. Currently, I am writing an op-ed right now, in conjunction with one of my Democratic colleagues, Representative Earl Blumenauer, about the need for research in the medical marijuana. Now that is a whole different subject than the recreational marijuana. But we need to have the ability to do research. If we could do research on marijuana, we would have the ability to detect and maybe provide some of these and create some of these devices that would check this.

So, I hope that that would be something that MADD would address and something that MADD will work on and help us with.

Ms. WITTY. I would hope so. Here is the issue: MADD has got to focus on driving, drunk and drugged driving. And so, exactly what you are saying. We can't get to the driving until we have that research done.

Mr. CARTER. Absolutely.

Ms. WITTY. So, we have to be careful that we remain focused. Just like we are not against alcohol; we are against drunk driving. We have to take the position we are not against marijuana; we are against marijuana and driving.

Now don't ask to say personally. OK? I mean, I get it.

And that is where our power is. We remain focused. But what my worry is, this is not a priority. We need to keep this, the drunk and drugged driving, a priority, so that we can stop the killing that is happening.

Mr. CARTER. Absolutely. A valid point. Thank you, Ms. Witty, again, and God bless you.

Ms. WITTY. Thank you. Thank you.

Mr. CARTER. And I yield back.

Ms. SCHAKOWSKY. Thank you. The gentleman yields back. And I now recognize for 5 minutes the Honorable Debbie Dingell.

Mrs. DINGELL. I want to thank you, Madam Chairwoman.

And before my colleague leaves, I want to say to you that I am a pragmatic person. Having had a sister that died of a drug overdose and a father that was a drug addict, I have a very natural reaction. But I also know it is a reality. My State just legalized it, and it is being legalized in State after State in this country, and we need to deal with it.

Part of the problem is—Madam Chairwoman, this is totally off—but I would encourage us to get the Acting Administrator of NHTSA in, who has this as a priority. Her problem has been that they have not been able to test it. You are starting to see more. But it needs to be an absolute priority. I think everyone in this room is worried about impaired driving, period. It is killing people.

So, pragmatically, you are absolutely right. I am having to deal with it is legalized in Michigan now, and I want to make sure we keep people safe in the process. So, I want to say that.

Now I want to go to drunk driving, which we do know, we do have the technology, and it is killing people. So, while we have got to get there—and I want to thank my colleagues on the Republican side, for I think today has truly been a very bipartisan hearing—we have got a problem. And that is why we are here. And we have had a problem since the '70s or the '60s and the '50s. But, as Joan Claybrook says, we have been talking about it since then.

I would also agree with Mr. Kelly that we do need a public relations campaign because I don't remember this—some people think I am old; I am seasoned, but not old; you are seasoned and not old, either, Ms. Claybrook—but we still to this day hear about that campaign to require seatbelts being buckled. And it is used as an excuse for everything. And we have got to stop using it. It is now 2019; it is not the 1970s, and people are dying and the technology exists. So, I am looking at that little girl who said to me, "It exists. Why aren't we using it?"

I thank all of you for being here.

Mr. Strassburger, you answered some questions about how many are being currently tested. But what I want to figure out is how we are going to get this from limited field testing to something that is placed in the vehicles. I totally agree the 4 years is just way too long. We keep having that excuse.

And you said California—you got asked a question about whether California was one of those States. Have you gone to California? What are you doing to actively go out and market it and to accelerate it?

Mr. STRASSBURGER. So, what we are doing, number one is just next week I am meeting with all of the OEMs to update them on this technology and tell them that, now that we are moving to fleet or see the time for fleet deployments, that they should begin to consider including this in their own program plans and package-protect for the technology.

Next month, we are at the National Fleet Administrators Conference in Kentucky, meeting with them and trying to get this deployed through fleets, et cetera.

Mrs. DINGELL. I don't want to interrupt, but I am going to have you give us more answers because I have only got 2 minutes left.

But how many more vehicles do you need to get this solid testing data?

Mr. STRASSBURGER. I think that the suggestion that Ms. Witty made about the GSA fleet is an excellent one.

Mrs. DINGELL. OK. So, I am going to ask all of you, what should Congress be doing to accelerate the pace of deployment for DADSS?

Mr. STRASSBURGER. Well, in our case, it would be to continue to fund this research, and if we have additional funding——

Mrs. DINGELL. OK. We keep funding it, but it is not getting there.

Ms. Claybrook or Mr. Kelly, would you care to comment?

Ms. CLAYBROOK. What I would say is that the Congress should mandate it with a date certain and pick a date when these systems have to be in cars. Ask NHTSA to do the rulemaking. Take all the research that has been done and evaluate it, and show that these systems work, can be used. They are being used now on the highway. If they are used now on the highway, why can't they be in every car? I don't get it. And so, that is for the interlock.

The DADSS should certainly be pushed, and NHTSA should be given an instruction to do that and a date for getting them into cars.

Mrs. DINGELL. Mr. Kelly?

Mr. KELLY. I think the public education campaign needs to be ramped up and some oversight on that and what is happening there, especially working with NHTSA. What they are doing from their involvement is helpful, too.

Mrs. DINGELL. OK. I am going to move quickly.

Ms. Witty, I am going to switch subjects because I am down to 20-some seconds.

In States that have mandatory first-offender interlock laws, have you seen a reduced number of alcohol-related fatalities?

Ms. WITTY. Yes. Yes, by about 16 percent. Yes.

Mrs. DINGELL. Ms. Claybrook, what do you think is needed to have the other 18 States adopt mandatory first-offender interlock laws?

Ms. CLAYBROOK. Well, this Congress could require that the States do that. Just like they did on age 21 and .08, have a penalty, maybe a 2- or 3-year phase-in, and then, a penalty apply. And as I said, the penalty is never going to apply because all the States have always done it.

Mrs. DINGELL. Ms. Witty, what is the cause of resistance from States that haven't implemented the mandatory first-offender laws?

Ms. WITTY. That is a good question.

Mrs. DINGELL. So, we will get you to answer that for the record because I am now over.

Ms. WITTY. I don't understand that.

Mrs. DINGELL. Can I submit questions for the record, Madam Chair?

Ms. SCHAKOWSKY. Without objection, so ordered.

Mrs. DINGELL. Thank you.

And I also request unanimous consent from the committee to submit the full text of a report from the National Academy of Sciences, which has items we should all be considering as we are working this issue.

Ms. SCHAKOWSKY. Without objection, so ordered.[1]

Mrs. DINGELL. Thank you.

Sorry I had to be so fast.

Ms. SCHAKOWSKY. The gentlewoman yields back.

There are other things for the record: a letter from the Coalition for Future Mobility—I am asking unanimous consent to enter all of these into the record—a letter from the Consumer Technology Association, a letter from Securing America's Future Energy, and a letter from the American Beverage Licensees on drunk driving and technology.

Without objection, so ordered.

[The information appears at the conclusion of the hearing.]

Ms. SCHAKOWSKY. Let me just say that this hearing has clearly raised a number of questions about whether NHTSA should prioritize or is prioritizing the DADSS program. I think it should be, but we want to hear. And we will have the NHTSA Administrator before the subcommittee for an oversight hearing. But, in the meantime, I plan to send a letter to NHTSA requesting information about its current commitment to, and future plans for, the DADSS program.

So, at this point, I want to thank all of our witnesses.

I want to thank all the Members that did come today. I want to thank the ranking member. And I want to thank our staff on both sides of the aisle for the good work that they did.

I remind Members that, pursuant to committee rules, that each Member has 10 business days to submit additional questions for the record to be answered by the witnesses who have appeared. I ask each witness to respond promptly to any such requests for information that you may receive.

And at this time, the subcommittee is adjourned.

[Whereupon, at 11:54 a.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

## PREPARED STATEMENT OF HON. FRANK PALLONE, JR.

You will hear this statistic or some form of it many times today—more than 10,000 people die every year from drunk-driving crashes. It is the leading cause of traffic crash deaths in the country. In my home State of New Jersey, drunk driving killed 125 people in 2017. And we shouldn't forget that drunk driving not only kills the people who drink and drive, it often kills others.

This committee has spent lots of time over the past few years exploring ways to make our roads safer. Yet, this issue is rarely discussed. So I am glad we are finally shining a light on the problem.

The thing is, drunk driving is preventable. But the statistics haven't really changed since the mid-1990s. Drunk driving has killed around 10,000 people every year for the past 25 years. That's more than 250,000 people who did not have to die.

We know it's bad. The people who drive drunk know its bad. But despite the statistics and despite all the tragic stories, they still choose to drive drunk-whether it's

[1] The report has been retained in committee files and also is available at https://docs.house.gov/meetings/IF/IF17/20190314/109109/HHRG-116-IF17-20190314-SD004.pdf.

because they are too impaired to make a reasonable decision, or they can't read their own level of intoxication.

We can no longer rely only on education campaigns or punishment after the fact. The average drunk driver has driven drunk more than 80 times before the first arrest. Fifty to 75 percent of drunk-driving offenders will drive drunk again. We need to explore the ways we can stop this cycle.

There are devices available today to help. Many State laws require ignition interlocks, which prevent the car from starting if alcohol is detected through a breathalyzer or other system, for repeat offenders. Now 30 States and Washington, DC, require ignition interlocks even for first-time offenders. These devices have been shown to be very effective is stopping repeated offenses while they are installed.

Ignition interlocks, while quite effective, are generally a temporary measure, used as a punishment after someone is caught driving drunk. Use of the device can be intrusive-it may take up to 30 seconds to get a reading.

The National Highway Traffic Safety Administration teamed up with a group of automakers, the Automotive Coalition for Traffic Safety, or ACTs, to engage in a research program to study advanced technology to help eliminate drunk driving.

The program, known as the Driver Alcohol Detection System for Safety, or DADSS, Program has been exploring technology to automatically detect when a driver is intoxicated and prevent the car from starting. Unlike current interlock devices, DADSS technology would not affect normal driving behavior.

The program is looking at a breath-based system and a touch-based system. Each of these technologies would be fully integrated into vehicles. The hope is that these technologies could be made available as an option for every new car or for installation in cars previously purchased. This may be particularly important for parents with teens just learning to drive.

The DADSS program shows a lot of potential to significantly reduce drunk driving. The program started 10 years ago, and it's made significant progress developing these technologies. But I'm concerned that progress has stalled. DADSS technology is being tested in a few cars. But a few cars aren't enough.

I look forward to hearing today about how we can encourage progress in the DADSS program as well as any other vehicle technology that can help eradicate drunk driving and save thousands of lives.

Thank you, and I yield the balance of my time to Congresswoman Dingell.

## PREPARED STATEMENT OF HON. GREG WALDEN

Good morning, and thank you Chair Schakowsky for holding today's hearing on drunk driving and ways in which we can use technology to help prevent it. I would like to note that last Congress, this subcommittee held a hearing to examine the growing problem of drug-impaired driving. The fact is, impaired driving, whether it be alcohol-impaired or drug-impaired, is a serious public risk that continues to tragically cut so many lives short.

Nearly 11,000 Americans lose their lives on our roadways each year because of the reckless decision to get behind the wheel after having consumed alcohol. That is almost 1 person every 48 minutes. Just think, while we are here discussing ways in which we can address this problem, we will lose several lives. It is simply unacceptable. Data indicates that younger adults are more at risk to be involved in an alcohol related fatal crash. Among fatal crashes, the highest percentage of drunk drivers is for ages 21 to 24 followed by 25 to 34. We must promote innovation and education to save our youth.

Drug-impaired driving has also taken hold on our roadways and the terrible scourge of opioid addiction shows its lethal effects on driving.

The number of American drivers killed in car crashes in which drugs were detected has steadily increased. Just a couple years ago, almost half of all fatally injured drivers with known results tested positive for drugs. The 10-year trend demonstrates that drug-impaired driving has increased despite seeing decreases in alcohol-impaired driving. But let me be clear, it is never acceptable to drive impaired. Even the slightest consumption of alcohol or drugs can have devastating effects.

Thankfully, we are seeing technological advancements and innovations that can help address the risks of impaired driving. These technology-based solutions include ridesharing companies giving consumers more transportation options, appropriate uses of ignition interlock devices for those convicted of driving impaired, breath- and touch-based sensors, and self-driving vehicle technology.

Taking a step back, the committee has been focused on roadway safety and technology to improve safety on the roads throughout our history. With the recent rises of highway fatalities, I would encourage this subcommittee to continue to support

new technologies that can drive that number down as we see incredible investment and growth trajectories for companies developing self-driving technologies.

Last Congress, this committee focused on self-driving vehicle technology that could drastically reduce impaired driving from our roadways altogether. We worked across the aisle in a bipartisan fashion to help address the unacceptable number of lives we lose each year and crafted the SELF DRIVE Act.

The SELF DRIVE Act was championed by Representatives Latta, Schakowsky, Upton, and Dingell—I want to thank you all for your leadership on this issue. I believe the SELF DRIVE Act was an example of this committee at its absolute best: working together to address a real public crisis. As a result of that approach, we were able to pass the SELF DRIVE Act out of committee on a 54–0 vote and it eventually unanimously passed the House.

As a reflection of our commitment to support technology to reduce all highway fatalities, including those caused by drunk driving, I hope this committee will prioritize this bipartisan legislation issue to improve safety, increase mobility options, and support American innovation and jobs.

Reducing impaired driving is a bipartisan issue. We all care deeply about protecting lives on the roadways and doing what we can to address the safety risk of impaired driving. This issue has impacted every person in this room and I hope with that in mind we can continue to work together on solutions.

I want to thank our distinguished panel for being here today and I look forward to our discussion.

Thank you. I yield back.

COALITION FOR
**FUTURE MOBILITY**
CoalitionForFutureMobility.com

March 13, 2019

Honorable Frank Pallone
Chairman, Energy and Commerce
2125 Rayburn House Office Building
Washington, D.C. 20515

Honorable Greg Walden
Ranking Member, Energy and Commerce
2322 Rayburn House Office Building
Washington, D.C. 20515

Honorable Jan Schakowsky
Chairwoman, CPAC Subcommittee
2367 Rayburn House Office Building
Washington, D.C. 20515

Honorable Cathy McMorris Rodgers
Ranking Member, CPAC Subcommittee
1035 Longworth House Office Building
Washington, D.C. 20515

Chairman Pallone, Ranking Member Walden, Chairwoman Schakowsky, and Ranking Member Rodgers:

In 2017, 10,874 lives were lost due to drunk driving. According to the National Highway Traffic Safety Administration, the crashes that caused these deaths were part of the 94% of all vehicle crashes that are due to human choice or error.

The Coalition for Future Mobility, a diverse, multi-stakeholder group representing auto manufacturers, suppliers, repairers, technology and communications companies, mobility providers, state and city governments, safety and national security groups, consumers, seniors, persons with disabilities, and others, writes to underscore the critical role automated vehicles (AVs) could play in reducing the number of lives lost due to drunk, drugged, distracted, and otherwise impaired driving.

The current federal regime, which was established before AVs came about, risks stymieing the timely roll-out of this life-saving technology. We hope that the details uncovered at this hearing serve as a solemn reminder that the status quo of driving fatalities cannot be considered acceptable, and encourage you to work on taking up legislation that promotes safely developing and deploying automated vehicle technology without delay.

Further information on the potential benefits of AV technology and bipartisan AV legislation can be found on the attached letter dated February 26, 2019. We at CFM look forward to working with you to help address the scourge of drunk driving, as well as many of the other causes of the loss of life on U.S. roadways.

The Coalition for Future Mobility

Enclosure

February 26, 2019

The Honorable Nancy Pelosi
Speaker of the House
U.S. House of Representatives
H-232, The Capitol
Washington, D.C. 20515

The Honorable Kevin McCarthy
Minority Leader
U.S. House of Representatives
H-204, The Capitol
Washington, D.C. 20515

The Honorable Mitch McConnell
Majority Leader
United States Senate
S-230, The Capitol
Washington, D.C. 20510

The Honorable Charles Schumer
Minority Leader
United States Senate
S-221, The Capitol
Washington, D.C. 20510

Speaker Pelosi, Minority Leader McCarthy, Senate Majority Leader McConnell, and Minority Leader Schumer:

Roughly two years ago, the Coalition for Future Mobility – a group of key stakeholders that represents a wide cross section of auto manufacturers, suppliers, repairers, technology companies, mobility providers, state and local governments, safety and national security groups, consumers, seniors, and persons with disabilities – was created to highlight the critical need for a federal framework that allows for the safe development, testing, and deployment of automated vehicles (AVs) here in the United States. We write to thank those Members of Congress who were involved in working to pass AV legislation in the 115th Congress and urge you to continue those efforts this year. Without question, Congress is uniquely suited to help provide greater clarity regarding both state and federal authorities that can help when it comes to the safe testing, development, and deployment of AV technologies.

The National Highway Traffic Safety Administration (NHTSA) has found that human choice or error is a factor in approximately 94% of all motor vehicle crashes on U.S. roads – crashes that took the lives of over 37,000 men, women, and children in 2017. By facilitating technology that can potentially eliminate these bad choices and unintentional errors, we can help prevent many crashes from happening and dramatically reduce injuries and fatalities on our roadways.

While safety is a critical component in the drive for the development of AVs, these vehicles can also provide life-changing opportunities for those who are not adequately served by current mobility options, such as seniors, persons with disabilities, and those who require more affordable transportation. Further, the benefits of these vehicles extend to other roadway users. Large-scale AV implementation could also mean less congestion and greater efficiency on our roads.

Last Congress, both the House of Representatives and the Senate recognized the importance of providing a federal framework for AVs. The House of Representatives passed the bipartisan SELF DRIVE Act (H.R. 3388) without a vote in opposition. Shortly after the House acted, the Senate Committee on Commerce, Science, and Transportation unanimously passed

similar legislation. In spite of strong, bipartisan support, legislation was unable to receive floor consideration in the Senate. Our coalition encourages you and your colleagues to redouble your efforts to move forward with legislation that will help improve safety, provide a tech-neutral path forward for private industry to innovate, and ensure clarity for regulators at all levels of government.

The status quo should not be acceptable. Recognizing the potential of this technology to positively impact millions of Americans, we urge you to support a federal AV framework this Congress. Our Coalition members stand ready to work with you.

3M

60 Plus

Alliance for Transportation Innovation

Alliance of Automobile Manufacturers

American Council of the Blind

American Highway Users Alliance

American Network of Community Options and Resources

Americans for Tax Reform

Aptiv

Argo AI, LLC

Aurora

Automotive Service Association

Association for Unmanned Vehicle Systems International

Association of Global Automakers

Competitive Enterprise Institute

CTIA

Digital Liberty

Harman

Mobileye

Motor & Equipment Manufacturers Association

Narcolepsy Network

National Association of Manufacturers

National Cued Speech Association

National Federation of the Blind

National Taxpayers Union

R Street Institute

Securing America's Future Energy

Segs4Vets

Telecommunications Industry Association

Third Way

U.S. Pan Asian American Chamber of Commerce

U.S. Tire Manufacturers

Via

What3Words

Wine & Spirits Wholesalers of America

cc: All Members of the U.S. House of Representatives and U.S. Senators

Consumer
Technology
Association

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March 14, 2019

Chairman Frank Pallone
House Energy and Commerce Committee
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Ranking Member Greg Walden
House Energy and Commerce Committee
2185 Rayburn House Office Building
Washington, DC 20515

Chair Jan Schakowsky
House Subcommittee on Consumer Protection and Commerce
2367 Rayburn House Office Building
Washington, DC 20515

Ranking Member Cathy McMorris Rodgers
House Subcommittee on Consumer Protection and Commerce
1035 Longworth House Office Building
Washington, DC 20515

Dear Chairman Pallone, Ranking Member Walden, Chair Schakowsky, and Ranking Member McMorris Rodgers;

On behalf of the Consumer Technology Association (CTA)™ and our more than 2,200-member companies, I would like to highlight the role advanced vehicle technologies and innovation can play in reducing roadway deaths. As the Committee holds its hearing on "Enhancing Vehicle Technology to Prevent Drunk Driving," CTA asks you to consider significant developments in self-driving and ridesharing technology. Both promise safe alternatives to impaired driving.

In 2016, drunk driving contributed to 28 percent of highway deaths, and CTA believes a reduction in these and all road fatalities can be achieved through innovations seen in automated vehicle features and ridesharing services.

Ridesharing provides transportation options that are both accessible and affordable to consumers across the world. These services offer a convenient mechanism to hail a ride through the power of your smartphone. A recent University of California, Davis[1] survey of ridesharing users found 33 percent of participants use ridesharing "to avoid driving when I might have alcohol."

The consumer trust and reliance for ridesharing while impaired illustrates a viable solution to drunk driving. According to a 2015 joint study with Mothers Against Drunk Driving (MADD) and Uber, alcohol-caused crashes dropped among drivers under 30 years old in areas with Uber and the uberX ride-hailing option. With over 10,000 deaths a year caused by drunk driving[2], ridesharing can be an easy deterrent to getting behind the wheel while impaired, and most importantly, saving the lives of fellow drivers and in-vehicle passengers.

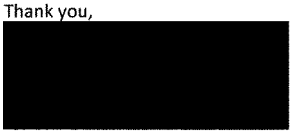
CTA represents innovators in the diverse vehicle transportation ecosystem who are developing an array of highly automated and self-driving technologies. Self-driving vehicles will lead to an enormous reduction in all roadway fatalities. According to the National Highway Traffic Safety Administration (NHTSA), 94 percent of crashes are caused by human error, nearly all of them preventable. Highly automated vehicles – which cannot get distracted, fatigued or impaired while driving and have a 360-

[1] https://steps.ucdavis.edu/new-research-ride-hailing-impacts-travel-behavior/
[2] https://www.madd.org/

degree view around the vehicle – have the potential to reduce these tragic numbers drastically. With so many traffic violations that are preventable, the promise of self-driving technology has the power to save thousands of lives a year.

As the Committee deliberates the power of technology in keeping consumers safe on the road and behind the wheel while impaired, I encourage you to keep in mind the advancements of vehicle technology outlined here. CTA and our member companies look forward to working with you to ensure that the United States remains the world leader in consumer safety and innovation.

Thank you,



Gary Shapiro
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Securing America's Future Energy

March 14, 2019

The Honorable Frank Pallone
Chairman, Energy and Commerce
2125 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Greg Walden
Ranking Member, Energy and Commerce
2322 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Jan Schakowsky
Chairwoman, CPAC Subcommittee
2367 Rayburn House Office Building
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The Honorable Cathy McMorris Rodgers
Ranking Member, CPAC Subcommittee
1035 Longworth House Office Building
Washington, D.C. 20515

Chairman Pallone, Ranking Member Walden, Chairwoman Schakowsky and Ranking Member McMorris Rodgers:

Thank you for holding today's hearing on the critical issue of drunk driving fatalities on U.S. roadways. Sadly, this hearing remains very timely due to the continued deaths on our roads.

Securing America's Future Energy (SAFE) appreciates the opportunity to submit this letter of record. SAFE is a nonpartisan nonprofit committed to reducing U.S. oil dependence to improve U.S. economic and national security. It is our belief that technology innovation holds enormous potential for increasing roadway safety while expediting the United States' ability to reduce oil dependence by improving efficiency and diversifying fuel choice in our transportation sector.

The United States is in the midst of a public health crisis that has been unfolding on our highways, country roads, and city streets for more than a century. In 2018, for the third straight year, 40,000 American lives were lost on our roadways.[1] Of those, 10,000 were connected to drunk driving collisions.[2] This amounts to nothing less than a national tragedy that must be addressed by deploying the lifesaving technologies that are available to us today and in the future.

Traffic deaths are pervasive and indiscriminate. Every day, we lose nearly 100 Americans from all walks of life: urban and rural, male and female, working class and white collar. The only constant is that 94 percent of these fatal collisions are caused by human error or choice. Driving under the influence has long been one of the top causes of these collisions.[3]

Roadway safety is impacted by numerous factors including human behavior, roadway and vehicle design, and the observation and enforcement of highway laws. While there is no silver bullet that can immediately eliminate all roadway fatalities, SAFE believes that implementing the suite of commercially-available driver-assist and crash-avoidance technologies will offer immediate benefits by saving lives,

[1] National Safety Council, "Vehicle Deaths Estimated at 40,000 for Third Straight Year." NSC.org, February 13, 2019
[2] National Safety Council, "Impairment Begins With the First Drink." NSC.org.
[3] Ibid.

while also accelerating the safe and expeditious deployment of autonomous vehicles (AVs), is one of the best pathways to address this public health crisis.

In the near-term, advanced driver assistance systems (ADAS) and crash-avoidance technologies stand to enable a meaningful reduction in roadway fatalities related to non-impaired collisions. A Boston Consulting Group study found that ADAS features and sensor technologies could save 9,900 lives every year in the United States, if deployed today.[4] Additionally, these technologies hold the potential for system-wide fuel economy savings of up to 18-25 percent.[5]

Crucially, these technologies form the foundation of autonomous driving. By automating the task of driving, we will have the opportunity to dramatically reduce the number of collisions that are caused by human factors. Unlike humans, AVs are not capable of driving under the influence and are being programmed to drive safely and responsibly.

In addition to the human toll of our current transportation network, Americans also shoulder tremendous social and economic costs of crashes every year. Our research has found that, even under a conservative methodology in which we assume AVs would only address crashes caused by gross driver error (e.g., alcohol, speeding, and distraction), the annual benefits of AVs would exceed $500 billion by 2050.[6]

In the previous Congress, this subcommittee took a vital step toward improving roadway safety by advancing the SELF DRIVE Act (H.R. 3388). Regrettably, it was not enacted into law. SELF DRIVE would have established a regulatory framework to spur the safe deployment of AVs while ensuring that the full range of benefits would be realized by all Americans – including the millions of seniors, people with disabilities, and wounded veterans who experience significant mobility challenges daily.

We would like to thank the subcommittee for its leadership on the SELF DRIVE Act in the 115th Congress and strongly urge you to expediently consider and pass similar legislation this year to ensure that Americans are able to realize the full safety benefits of AVs as soon as possible. The status quo – 40,000 American lives lost every year and millions more injured – is unacceptable and the costs are far too great to delay action. We look forward to working with you, your colleagues, and fellow stakeholders to accelerate the adoption of lifesaving vehicle technologies.

Thank you,

Robbie Diamond
President and CEO
Securing America's Future Energy

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[4] Xavier Mosquet, Michelle Andersen and Aakash Arora, "A Roadmap to Safer Driving Through Advanced Driver Assistance Systems." Boston Consulting Group, September 2015

[5] Amitai Bin-Nun and Jeff Gerlach, "Using Fuel Efficiency Regulations to Conserve Fuel and Save Lives by Accelerating Industry Investment in Autonomous and Connected Vehicles." Securing America's Future Energy, April 2018.

[6] Amitai Bin-Nun, Jeff Gerlach and Alex Adams, "America's Workforce and the Self-Driving Future." Securing America's Future Energy, June 2018

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Jorgenson's Restaurant & Lounge
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**Drink** Responsibly.
Drive **Responsibly.**

March 14, 2019

The Honorable Janice D. Schakowsky
Chairwoman

The Honorable Cathy McMorris Rogers
Ranking Member

Subcommittee on Consumer Protection & Commerce
House Energy & Commerce Committee
U.S. House of Representatives
2125 Rayburn House Office Building
Washington, DC 20515

**Re: Supporting Long Term Solutions for Fighting Drunk Driving & Recidivism**

Dear Chairwoman Schakowsky & Ranking Member McMorris Rogers:

American Beverage Licensees is a trade association of nearly 15,000 beverage licensees who own and operate independent bars, taverns and package stores in cities and town across the country. Some of the last locally-owned small businesses on Main Street, ABL members are active in their communities both as business people and responsible citizens, contributing to their local economies and the civic fabric of their hometowns.

Beverage licensees are responsible for handling, selling and serving beverage alcohol, an age-restricted product which, if misused, can cause harm. They are also stakeholders when it comes to preventing drunk driving. Beverage retailers are engaged in state and local-level policy discussions concerning drunk driving and to find reasonable and effective solutions.

Despite a track record of supporting responsibility efforts and policies, ABL is aware that there are those involved in the conversation and policy-making process surrounding drunk driving who do not believe that any segment of the beverage alcohol industry has a role to play in the discussion.

We couldn't disagree more.

ABL and its beverage retailer members have supported the efforts of state legislatures and the prevention community to close legal loopholes in order to better protect their communities from drunk drivers. That has meant supporting graduated sentencing with required ignition interlocks for hardcore and repeat offenders, and other permanent approaches that address recidivism.

ABL firmly believes that a comprehensive approach, tailored to each offender and based on his or her needs and dependency, is necessary if we are to be serious about addressing drunk driving. Incorporating a thorough approach via the criminal justice system – and a judge in particular – will continue to move the fight against drunk driving in the right direction.

On behalf of those represented by American Beverage Licensees, the communities we serve, the millions of Americans we employ and the hundreds of millions more who responsibly enjoy the hospitality we provide, **we encourage you to support a comprehensive approach to fighting drunk driving by opposing any one-size-fits-all federal mandates for ignition interlocks or any other singular technology.**

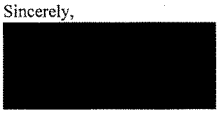
Relying on technology is only part of the solution, and recidivism will continue if assessment, rehabilitation and other comprehensive countermeasures are not in place. By preventing judges and courts from using discretion in how they adjudicate drunk driving cases, a federal mandate would have the effect of weakening efforts to monitor hardcore drunk drivers and other high-risk offenders. Instead of a one-size-fits-all mindset, a better approach would be to focus on DWI courts and similar solutions that are being used all over the United States, as well as incentives for states that focus on enforcement (by police and judges) of existing drunk driving laws.

It's also important to recognize that transportation options have evolved and continue to change in the "gig" economy. Thanks to ride-sharing companies and programs like SafeRide, more options exist than ever before for adults who choose to responsibly enjoy beverage alcohol products and make lawful decisions on how they get to wherever they are going.

In addition, the rise of poly-substance impaired driving must be considered and addressed in order to develop the truest picture possible when it comes to which substances are causing incidents of impaired driving.

**As you consider the serious issues surrounding drunk driving, ABL strongly encourages you to support long-term solutions to drunk driving that address recidivism, while opposing mandates that do not distinguish between the dependencies of individual offenders and do not ensure success in this fight.** We look forward to working with you and being part of the solution when it comes to this serious issue.

Sincerely,



John D. Bodnovich
American Beverage Licensees

**ABL Affiliates**

Alabama Beverage Licensees Association
Alaska CHARR
United Beverage Retailers of Arkansas
Colorado For Safety
Connecticut Package Stores Association
Delaware Small Beverage License Council
Florida Independent Spirits Association
Georgia Alcohol Dealers Association
Illinois Licensed Beverage Association
Indiana Association of Beverage Retailers
Kansas Licensed Beverage Association
Kentucky Association of Beverage Retailers
Maryland State Licensed Beverage Assoc.
Massachusetts Package Stores Association
Mississippi Hospitality Beverage Assoc.
Montana Tavern Association
New Jersey Liquor Stores Alliance
New York State Liquor Store Assoc.
Retail Liquor Association of Oklahoma
Malt Beverage Distributors Association of Pennsylvania
Rhode Island Liquor Stores Association
ABC Stores of South Carolina
Licensed Beverage Dealers of South Dakota
Tennessee Wine & Spirits Retailers Association
Texas Package Stores Association
Virginia Licensed Beverage Association
Tavern League of Wisconsin
Wyoming State Liquor Association

**United States House of Representatives**
**Committee on Energy and Commerce**
**Subcommittee on Consumer Protection and Commerce**
***Enhancing Vehicle Technology to Prevent Drunk Driving***
**March 14, 2019**

**Question for the Record**
**The Honorable Joan Claybrook**
**Board Member, Advocates for Highway Auto Safety**
**Former Administrator, National Highway Traffic Safety Administration**

**The Honorable Michael C. Burgess, M.D.**

1. *For the past several Congresses, the Energy and Commerce Committee worked with NHTSA to address defective Takata airbags and non-deploying airbags due to faulty ignition switches. Recently, I was made aware of a counterfeit airbag in a vehicle belonging to a constituent of the 26th District of Texas who died when her vehicle struck a tree and the airbag failed to deploy. Information on NHTSA's website states the belief that counterfeit airbags affect less than 0.1 percent of the U.S. vehicle fleet.*

    a. *Could you please outline your understanding of the scope of the counterfeit airbag issue in U.S. vehicles? How prevalent is this issue, and are there are any efforts to detect and repair counterfeit airbags?*

As the Committee is well aware, over the last few years, automakers have hidden from the American public and regulators safety defects that have led to numerous unacceptable and unnecessary deaths and injuries as well as the recall of millions of vehicles each year. According to the National Highway Traffic Safety Administration (NHTSA), roughly 41.6 million vehicles equipped with 56 million defective Takata air bags are under recall.[i] Moreover, additional safety recalls of Takata airbags continue to be issued by NHTSA.

NHTSA must be given the authority to pursue criminal penalties in appropriate cases where corporate officers who acquire actual knowledge of a serious product danger that could lead to serious injury or death knowingly and willfully fail to inform NHTSA and warn the public. Under current federal law, many agencies already have authority to pursue criminal penalties including the Consumer Product Safety Commission, the Food and Drug Administration and the Securities and Exchange Commission. The lack of criminal penalty authority has hampered the agency's ability to effectively deter automakers from safety defect recidivism.

When repair facilities place counterfeit or fake air bags into a vehicle, it is likely a violation of most state criminal statutes as well as the federal prohibition on making safety devices

inoperative.[ii] I would urge the family of your constituent to seek remedies available to them under state and federal law, if they have not already. Sadly, the tragedy involving your constituent is not an isolated incident. The Federal Trade Commission estimates the market for fake car parts at approximately $12 billion a year globally, including $3 billion per year in the United States.[iii] Common counterfeit parts include such vital safety equipment such as airbags, brake pads, cables and tail lights. In addition, the Insurance Institute for Highway Safety (IIHS) has identified the installation of fake airbags as a serious safety problem.[iv]

Unfortunately, NHTSA often does not identify the magnitude of the scope of safety issues. For example, they have not done so in many recent safety recalls including those involving Takata airbags and the General Motors ignition switch. Therefore, the agency's claim that counterfeit airbags affect less than 0.1 percent of the U.S. vehicle fleet should be examined. As such, I recommend that Congress request the Government Accountability Office (GAO) to examine this issue including the scope of the problem and provide Congress with a report including its findings and recommendations.

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[i] NHTSA, Takata Recall Spotlight, Overview, available at: https://www.nhtsa.gov/equipment/takata-recall-spotlight

[ii] 49 U.S.C. 30112 (2015).

[iii] Federal Trade Commission, Anti-Counterfeiting & IPR Resources, available at: https://www.trade.gov/td/otm/assets/auto/doc_auto_faqs_anticounterfeit.pdf

[iv] Insurance Institute for Highway Safety, *Is that a functional airbag in your repaired car?* Status Report, Vol. 38, No. 2 (Feb. 8, 2003).

**Attachment—Additional Questions for the Record**

Mr. David Kelly, Executive Director, Coalition of Ignition Interlock Manufacturers

**The Honorable Michael C. Burgess, M.D.**

1. 1. Mr. Kelly, you represent manufacturers of a technology, ignition interlocks, that keep alcohol-impaired individuals from operating a vehicle.

    a. Are there any similar technologies to keep a drug-impaired individual from operating a vehicle?

    b. If so, are you aware if these capabilities are being utilized by law enforcement to field test for the presence of drugs?

Response: There are currently no commercially available interlock devices for drug-impaired driving. While there are many reason for this, it is primarily due to the fact that there is no existing impairment standard for drugs.

There are existing technologies that can detect the presence of drugs, however, without an impairment standard they cannot be deployed as alcohol ignition interlocks are deployed.

2. For the past several Congresses, the Energy and Commerce Committee worked with NHTSA to address defective Takata airbags and non-deploying airbags due to faulty ignition switches. Recently, I was made aware of a counterfeit airbag in a vehicle belonging to a constituent of the 26th District of Texas who died when her vehicle struck a tree and the airbag failed to deploy. Information on NHTSA's website states the belief that counterfeit airbags affect less than 0.1 percent of the U.S. vehicle fleet.

    a. Could you please outline your understanding of the scope of the counterfeit airbag issue in U.S. vehicles? How prevalent is this issue, and are there are any efforts to detect and repair counterfeit airbags?

Response: I believe the NHTSA 0.1% estimate is as good of a measure as we have to determine the extent of the issue. Replacing an air bag with a counterfeit product is an illegal act. Unfortunately, many consumers are not aware of whether these parts are genuine or not. Consumers are more likely to have a counterfeit air bag if they purchased one online than if they had gone to a certified dealer.

○