Drunk Driving in America

- Each year in the U.S., drunk driving claims more than 10,000 lives and costs approximately $194 billion.[1]
- Research from the Insurance Institute for Highway Safety (IIHS) suggests that if driver blood alcohol concentrations (BACs) can be limited to less than 0.08% percent—the legal limit in all 50 states except Utah—more than 9,400 lives could be saved annually in the U.S.[2]

Drunk Driving in Virginia

- In 2020, Virginia reported 6,624 alcohol-related crashes, 272 alcohol-related fatalities, and 3,986 alcohol-related injuries, and 14,105 DUI convictions on its roadways.[3,4]
- In a statewide online poll conducted in 2020:
  - Nearly half of Virginians (47%) surveyed say they know someone who has been in a crash involving a drunk driver or have been in a crash themselves.[5]
  - More than a quarter of Virginians (28%) surveyed report they have driven after drinking, with nearly one in five (19%) saying they have driven when they had too much to drink to drive safely.[5]
  - The majority of Virginians (62%) surveyed say addressing the issue of drunk driving in their community is a high priority, with one in five (20%) considering it a very high priority.[5]

A Technological Solution

- The Driver Alcohol Detection System for Safety (DADSS) Program is a public-private partnership between the Automotive Coalition for Traffic Safety (ACTS), a nonprofit organization funded by the world's leading automakers, and the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA).
- Its mission is to bring to market a first-of-its-kind alcohol detection technology that will passively detect when a driver is intoxicated with a blood alcohol concentration (BAC) at or above the legal limit and prevent the vehicle from moving.
- The program is developing both a breath system and a touch system. Extensive testing is ongoing to ensure the systems are fast, accurate, reliable, and affordable – and small enough to be integrated into a vehicle. Since the program began, the sensors have been reduced by the following amounts:
  - 88% reduction in size for the breath sensor
  - 85% reduction in size for the touch sensor
- In addition to rigorous testing using standard calibration devices (many of which were invented specifically for the DADSS program), the program has conducted human subject testing with 526 individuals in controlled tests including both laboratory and in-vehicle test settings that involve a sober driver and a drinking passenger. To date, more than 140,500 breath, blood, and touch samples have been collected and analyzed.

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[1] National Highway Traffic Safety Administration (NHTSA). "The Economic and Societal Impact Of Motor Vehicle Crashes, 2010." Washington (DC), May 2015 (Revised), DOT HS 812 013. Available at: www-nrd.nhtsa.dot.gov/Pubs/812013.pdf

[2] Charles M. Farmer (2021) Potential lives saved by in-vehicle alcohol detection systems, Traffic Injury Prevention, 22:1, 7-12, DOI: 10.1080/15389588.2020.1836366

[3] Numbers for 2020 are from the Virginia Department of Motor Vehicles (DMV) at: https://www.dmv.virginia.gov/safety/crash_data/crash_facts/crash_facts_20.pdf

[4] Virginia DMV's 2020Virginia Traffic Crash Facts

[5] Public Opinion Strategies conducted a Virginia statewide telephone survey of N=600 licensed drivers ages 21 or older from August 6-13, 2020. The margin of error for a sample size of N=600 is +/-4.0%.

DRIVEN TO PROTECT.ORG

Driven to Protect in Virginia

- Driven to Protect installed prototype breath sensors into six vehicles owned and operated by James River Transportation to collect real-world data in a naturalistic setting. Since 2018, we have:
    - Run the sensors for more than 15,000 hours,
    - Driven over 77,700 miles with the sensors installed, and
    - Collected more than 98,400 breath samples from participating drivers.
- We've reached an estimated two million Virginians through events (from conferences and military safety days to sports games and festivals), media coverage, webinars and e-newsletters, social media, and other outreach.
- We have had more than 6,400 visits to the Discovery Hub, which provides virtual learning and hands-on activities, interactive quizzes, video content, and more.
    - The Discovery Hub was launched in 2020 and is being rolled out in partnership with the Virginia Department of Education.
    - These resources are designed to introduce the DADSS technology, how it works and how it's being tested; deepen students' understanding of the dangers of drinking and driving; and provide real-world application of the STEM lessons that they are learning in the classroom.

A New Trial Deployment

- Schneider is the first truckload carrier to work with the DADSS Program through the Driven to Protect Initiative. Schneider will outfit eight of their cabs with the latest breath sensors in 2022, logging more than 100,000 sensor miles for each vehicle outfitted, for a collective total of almost one million miles. This trial deployment will help to further refine the sensors by increasing the stress that the system is put under on the road, exponentially increasing the number of miles driven, and exposing the system to new drivers and environmental conditions.
- Schneider has been in operation for 86 years and employs a team of over 10,000 drivers and owner operators, who have driven over one million consecutive safe miles.
- An industry leader and innovator in truck safety technology, Schneider implemented speed limiters in the 1980s and has continued to be an early adopter of other safety technology such as stability control systems, electronic logging devices, collision mitigation systems, and forward and side-mounted video cameras.

Virginians View the DADSS Technology Favorably

The DADSS technology is a new driver alcohol detection technology that will measure a driver's blood alcohol concentration (BAC) level when their vehicle is started. If a driver's BAC level is over the legal limit, the vehicle will not shift into gear and will not move.

- After hearing this description, seven in 10 Virginia drivers (70%) surveyed have a favorable opinion of the technology. This holds true for Virginia drivers who admit to driving after drinking (73% have a favorable opinion), including drivers who say they have drunk too much to drive safely (70% have a favorable opinion).[5]
- Some reasons drivers say they view the technology favorably include that it will prevent/decrease drunk driving; it will save lives and prevent crashes; it's helpful for drivers, especially for repeat offenders, so they will not drive drunk again; and it's easier for law enforcement, reducing the burden of tracking down drunk drivers.[5]
- Nearly four in 10 Virginia drivers (38%) surveyed say they would be "very" or "somewhat" likely to want the DADSS technology (as described) in their next vehicle.[5]
- Virginia drivers surveyed view the DADSS technology much more favorably than other traffic safety technologies, like biometric vehicle access (40% favorable) or autonomous vehicle technology (36% favorable).[5]