

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% — the legal limit in all 50 states except Utah, which is 0.05% — more than 9,400 lives could be saved annually in the U.S.²

Drunk Driving in Virginia

- In 2022, Virginia reported 6,910 alcohol-related crashes, 260 alcohol-related fatalities, 2,702 alcohol-related injuries, and 14,247 DUI convictions on its roadways.³
- In a statewide telephone survey 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.⁴
 - 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.⁴
 - 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.⁴

A Technological Solution

- The **Driver Alcohol Detection System for Safety Program (“DADSS”)** is a public–private partnership between the U.S. Department of Transportation’s **National Highway Traffic Safety Administration (“NHTSA”)**, the federal entity in the U.S. that regulates the safety performance of motor vehicles, and the nonprofit **Automotive Coalition for Traffic Safety, Inc. (“ACTS”)** which pursues its mission with the support of the world's leading light car and truck manufacturers. ACTS manages this partnership pursuant to a cooperative agreement with 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.

Driven to Protect in Virginia

- Driven to Protect is an initiative of the DADSS Research Program, which empowers states to join the fight against drunk driving by advancing lifesaving safety technology. Powered by a public-private partnership between ACTS and the NHTSA, Driven to Protect offers states the opportunity to test the DADSS alcohol-detection technology on their roads, bringing it closer to widespread commercialization and encouraging consumers to consider advanced sensor technology as a solution to this deadly problem.
- Virginia was the first state to join the Driven to Protect Initiative, which now also includes Connecticut.
- 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 24,000 hours,
 - Driven nearly 100,000 miles with the sensors installed, and
 - Collected nearly 140,000 breath samples from participating drivers.
- Schneider became the first truckload carrier to work with the DADSS Program through the Driven to Protect Initiative. This trial deployment is helping 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. Seven Schneider cabs were outfitted with the latest breath sensors, and since 2022, we have:
 - Driven nearly 40,000 miles
 - Accumulated 15,000 breath samples.
- 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 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.
- The learning modules are also available on Virtual Virginia, where teachers can earn continuing education credits.

Virginians View the DADSS Technology Favorably

- The DADSS technology is a new driver alcohol detection technology that will measure a driver's BAC when their vehicle is started. If a driver's blood alcohol 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).⁴
- 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.⁴
- 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.⁴
- 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).⁴

You can learn more about Driven To Protect in Virginia and the DADSS technology by visiting

www.driventoprotectva.org

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](http://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 2021 are from the Dept. Of Motor Vehicles' Virginia Highway Safety Office at: https://www.dmv.virginia.gov/safety/crash_data/crash_facts/crash_facts_22.pdf

⁴ 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%.