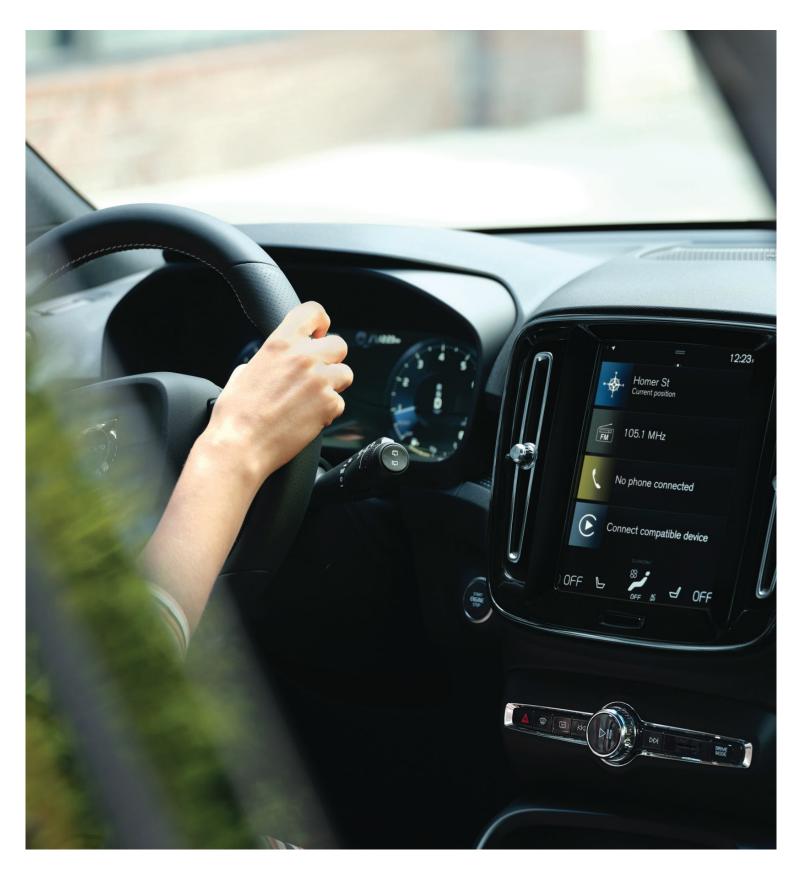


VOLVO REPORTS: THE STATE OF DRIVER EDUCATION





INTRODUCTION

Volvo Car USA has teamed up with The Harris Poll to deepen insights into the American opinion across four core themes: design, safety, technology and environment. These insights are distilled into Volvo Reports and will highlight a different topic each month.

This edition of Volvo Reports investigates the state of driver education programs and how adequately these programs prepare young drivers for the realities they face on the road. This report sought to explore how Americans of all ages learned to drive, what information was available and retained, and what they think needs to be changed or updated in the process.

We encourage you to use these statistics freely, properly sourcing Volvo Car USA/The Harris Poll. If you have any questions regarding these findings, please reach out to Jim Nichols at jim.nichols@volvocars.com.

METHODOLOGY

This survey was conducted online within the United States by The Harris Poll on behalf of Volvo from May 21-29, 2019, among 2,000 licensed adults ages 18 and older. This online survey is not based on a probability sample and therefore no estimate of theoretical sampling error can be calculated.

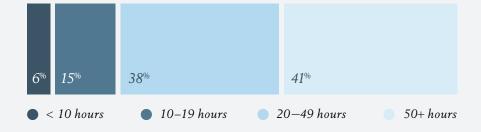
AMERICANS ARE FACING A DECLINING & DATED DRIVER EDUCATION SYSTEM

While dodging traffic cones in an empty parking lot was once a hallmark of the American high school experience, access to public driver education is dwindling. In the 1970s, 95% of students had access to this resource, and most states had 1 to 5 staff members supervising driver education programs, according to the American Driver and Traffic Safety Education Association (ADTSEA).¹ Today, of the few states that continue to offer driver's ed, the majority have only one person managing programs across the entire state. The ADTSEA's analysis further reveals that only 10 states continue to offer driver's ed as part of public schooling. This sharp decline is not due to lack of interest – 90% of Americans believe driver's ed should be part of public education today.

In addition to access, many respondents are also questioning the quality of the material, with more than half (52%) saying, "today's driver education system is outdated." While requirements vary from state to state, on average, the number of practice hours required before taking one's driving test falls short of Americans' expectations. For example, nearly half of Americans believe that a minimum of 50 hours should be required to take the driving test, while the average number of state-mandated hours lands below this at 46 hours. This includes 16 states that require 40 hours or less and 11 states that do not include supervised driving as a licensure requirement.¹

TODAY'S DRIVER EDUCATION SYSTEM FALLS SHORT OF EXPECTATIONS

How many practice hours do you think your state should require someone to log while driving with a parent or instructor before taking their driver's test?

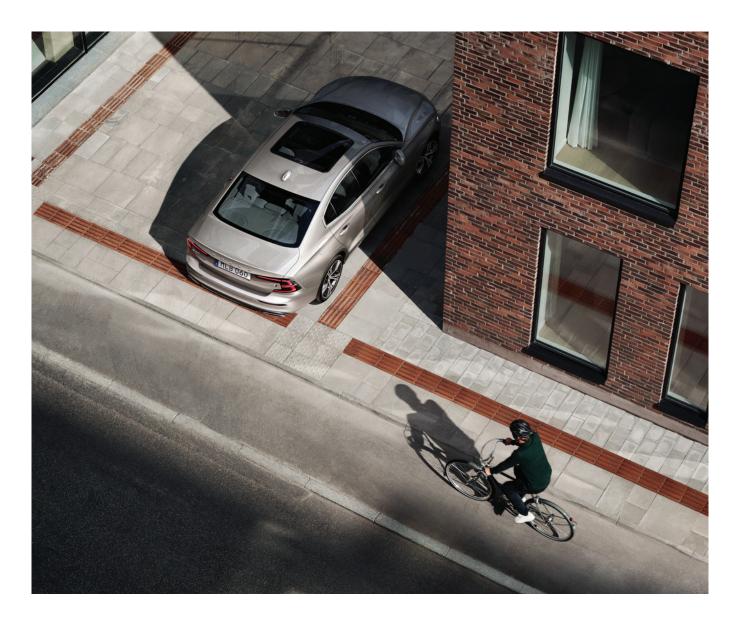


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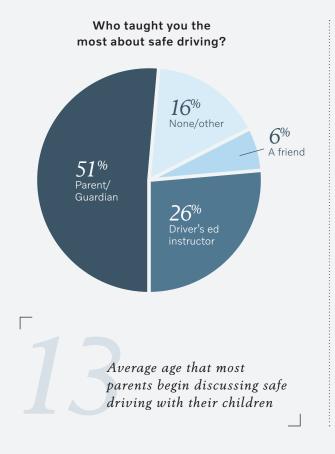


As funding and staff for these programs continue to decrease, the ADTSEA finds that these programs "often lack monitoring for compliance with State requirements." Most are no longer available at public schools and are instead offered in commercial schools for a fee or through parent-taught programs.¹

The rigor of the driver's test is another area of concern. Two-thirds of drivers agree that passing today's test does not necessarily prepare someone to be a good driver, saying, "today's driver's test is designed to be passed, more than to test one's driving skills" (60%). In fact, the number one word used to classify the written portion of the exam was "easy."

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PARENTS SEEK TO FILL GAPS IN TODAY'S DRIVER EDUCATION SYSTEM



Beyond minimum driving requirements, will you ask your children to do any of the following to educate themselves on safe driving practices?



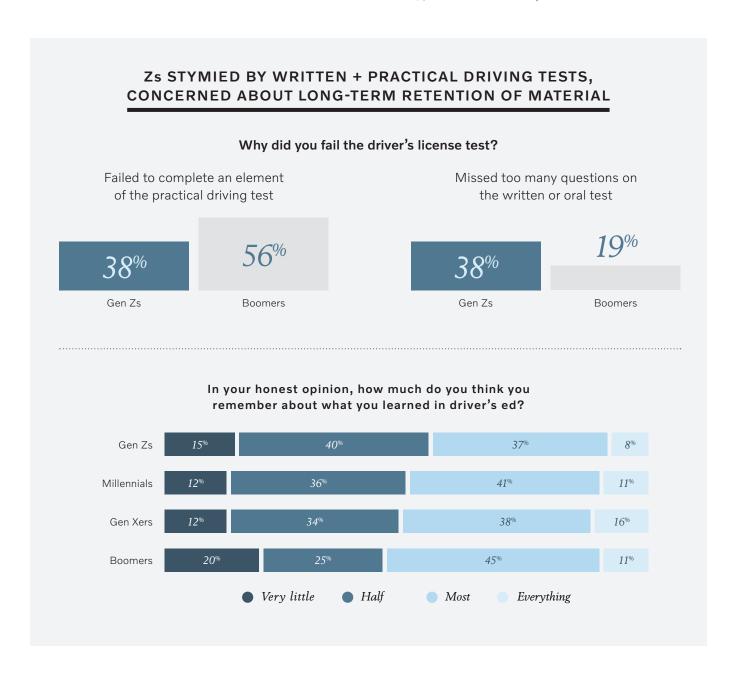
In the absence of a strong public driver education system, parents are taking driver's ed into their own hands for the sake of their teens. As a result, the majority of drivers cite their parents as their most influential driving teacher – twice as many who gave that honor to a driver's ed instructor.

Beyond their own tutelage, the vast majority of parents are also seeking additional driver education measures to fill gaps in an outdated system (80%). More than half plan to enroll their children in driving lessons, while 1 in 5 plan to go as far as hiring a personal driving instructor (18%).

TODAY'S LACKLUSTER SYSTEM IS COMING UP SHORT FOR AMERICA'S YOUNGEST DRIVERS

As a result of an outdated education system and testing process, America's youngest drivers lack confidence on the road. Despite being the most recent generation exposed to driver's ed, 1 in 4 Gen Zs are not confident they would pass the driver's test if they had to retake it today (24%). Among those who didn't pass the first time, the written test proved to be just as much of a challenge as the practical driving portion of the exam, which was more trying for older generations.

Long-term retention of the information is also an issue. More than half of Gen Zs say they remember half or less of what they learned in driver's ed (55%), compared to Boomers who say they remember most or everything they learned (56%). Gen Zs are also the least optimistic about defensive driving as a tool to keep drivers informed and safe on the roads – they are nearly twice as likely as the overall population to say, "defensive driving is not practical" (43% of Gen Zs, compared to 24% of Americans overall).



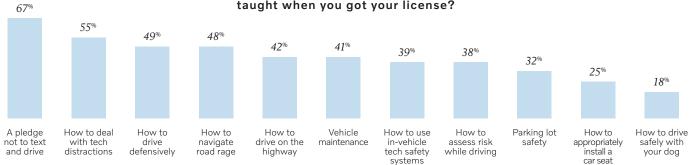
MODERNIZING DRIVER'S ED

Drivers believe it's time to explore new solutions and innovative ways to modernize an outdated system. For example, many believe refresher courses and checkpoints after the initial education and test can be useful tools for filling knowledge gaps and updating old driving habits. In fact, half of Americans believe drivers should be required to take the test every 5 years (47%), while 1 in 3 think legally required classes every 10 years would enhance the long-term driver education process (33%).

The vast majority of Americans also believe there is an opportunity to modernize the tools and materials used in the classroom and on the road. In fact, 77% of drivers wish there were more interactive safety tests available to truly get the feeling of experiencing a safety threat while driving. More than half say they believe virtual reality simulated experiences could be used to improve the safety of teens learning how to drive (55%). Others suggest using technology for surveillance during the learning phase via driver cams and remote keys that allow parents to govern features such as speed and music in the vehicle (39%).

AMERICANS ARE CALLING FOR UPDATED CURRICULUM & TECH TOOLS TO REVITALIZE DRIVER'S ED

What should be part of today's driver education that wasn't taught when you got your license?







To further build retention and engagement, Americans are also calling for a re-imagined driving education curriculum. The most critical updates center around technology usage in the vehicle, including introducing "a pledge not to text and drive" as well as teaching drivers "how to deal with tech distractions." Many are also thinking about the safety of others in the vehicle, with 1 in 4 suggesting the addition of proper car seat installation to driver's ed curriculum, and 1 in 5 recommending education on how to drive safely with their dog (18%).

Finally, many feel vehicle manufacturers have a role to play in this education optimization. **3 in 4 drivers say vehicle** manufacturers should focus more on educating drivers on vehicular safety (73%). More than half of drivers also say they would attend safe driving lessons at their local vehicle dealership if they were available (55%). For the two-thirds of parents who worry about the safety of the vehicle their child drives (64%), this education has the potential to not only teach the rules of the road, but to also inform drivers of their specific vehicle's features.

How could technology improve the safety of teenagers learning to drive?



55% Virtual reality simulated experiences

41% Driver cams for learner's permits





Remote keys that allow parents to control speed, radio, etc.

30%
Breathalyzers integrated into the vehicle



VOLVO & DRIVER EDUCATION

Driver education programs play a significant role in preparing young drivers to make smart and safe choices on the road. Most states, however, do not offer public education programs that require adequate time behind the wheel or include modernized material that reflects the realities and distractions young drivers face on the road. This is why Volvo believes improved driver education is a necessity at the state level.

As the longtime leader in vehicle safety, Volvo is committed to making roads safer for all drivers. Following the invention of the three-point safety belt in 1959, Volvo has introduced alongside countless safety innovations, including Side Impact Protection Systems (SIPS), Whiplash Protection Systems (WHIPS) and City Safety, our pedestrian and cyclist detection system.

