



# Consumer Acceptance on the Road to Autonomy

Jennifer Ryan

AAA

June 12, 2018





# Safety Landscape

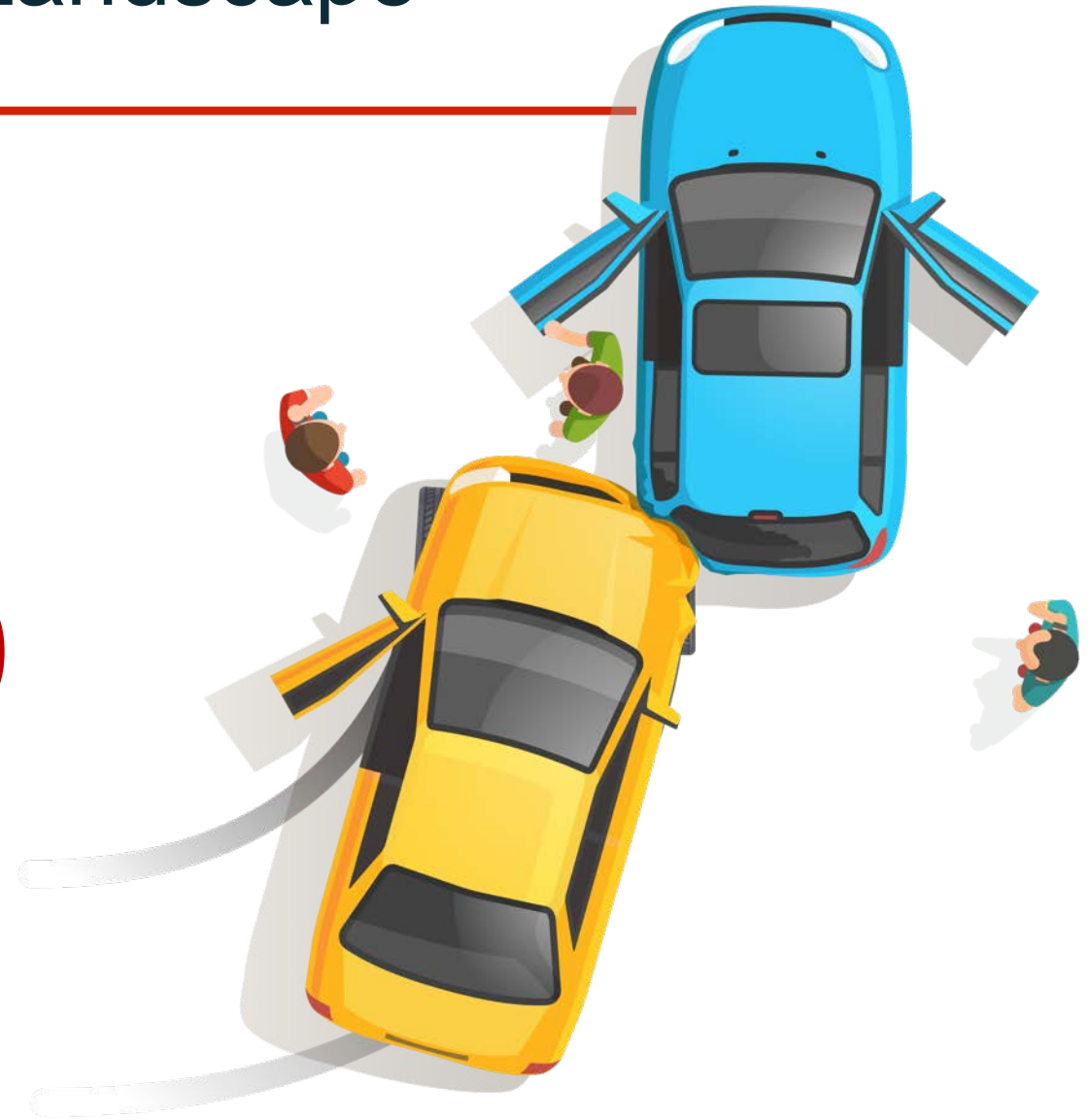
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Human Error Contributes to

**MORE  
THAN**

**90%**

of crashes



# Driving consumer acceptance of automated technology





In Dec. 2017,  
**63%** of **U.S. drivers**  
would be afraid to ride  
in a fully self-driving  
vehicle, down from  
**78%** in early 2017



Drivers who own vehicles equipped with driver assistance features are more likely to trust the technology



# Automated Vehicle Crashes

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The New York Times

How a Self-Driving Uber  
Killed a Pedestrian in Arizona

abc NEWS

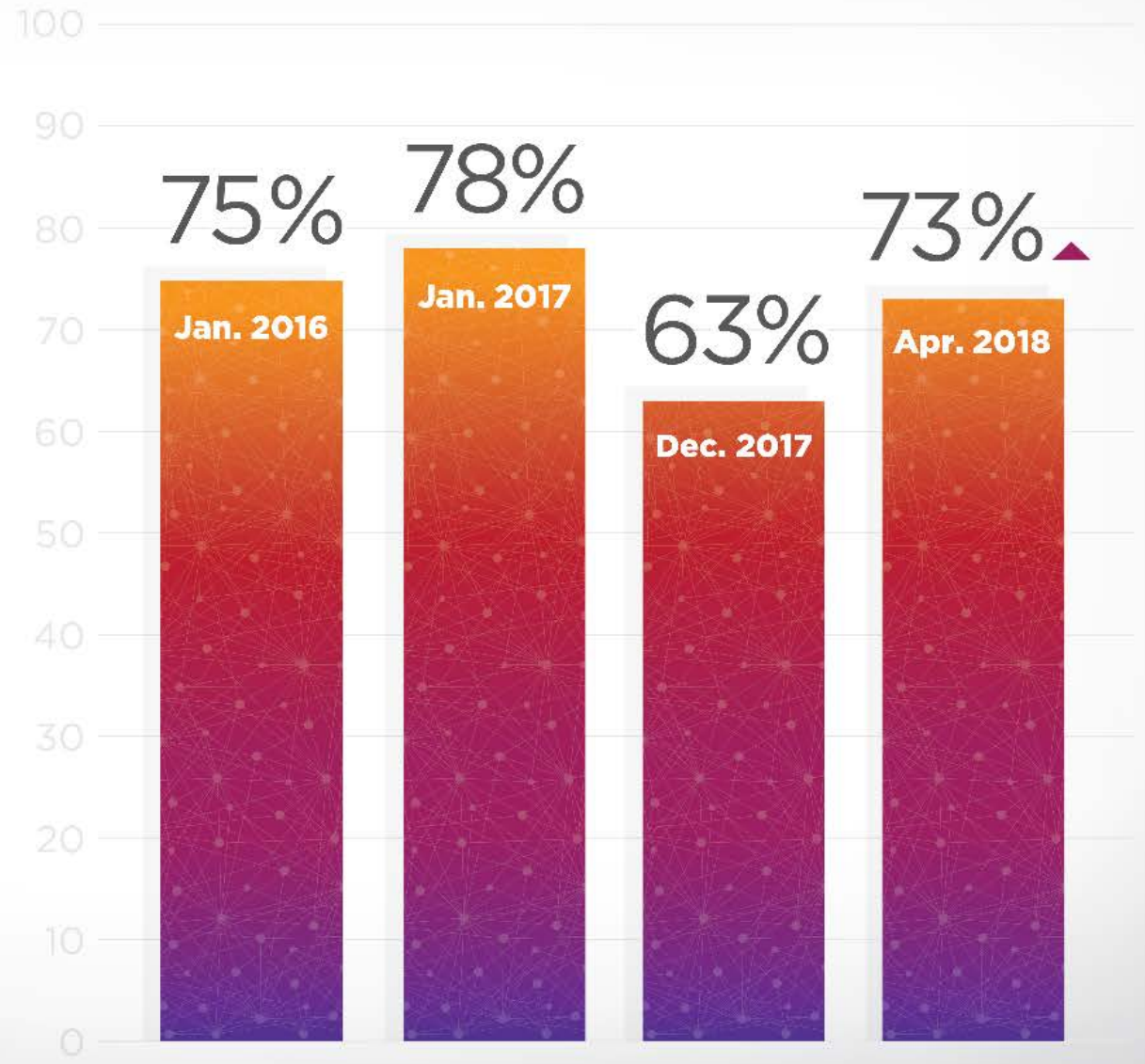
**NTSB investigating Tesla crash, fire that  
killed 2 Florida teens**

NBC  
BAY AREA

Driver Dies Following Fiery Tesla Model X  
Crash on U.S. Hwy. 101 in Mountain View



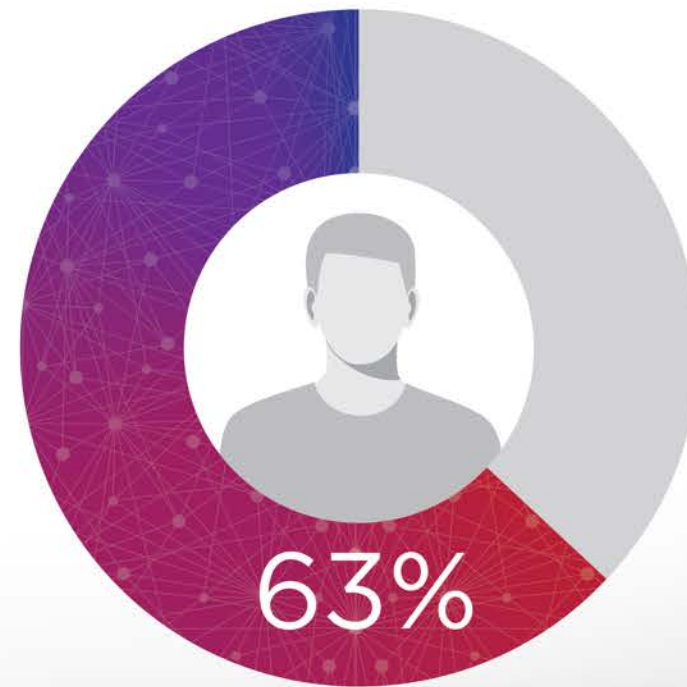
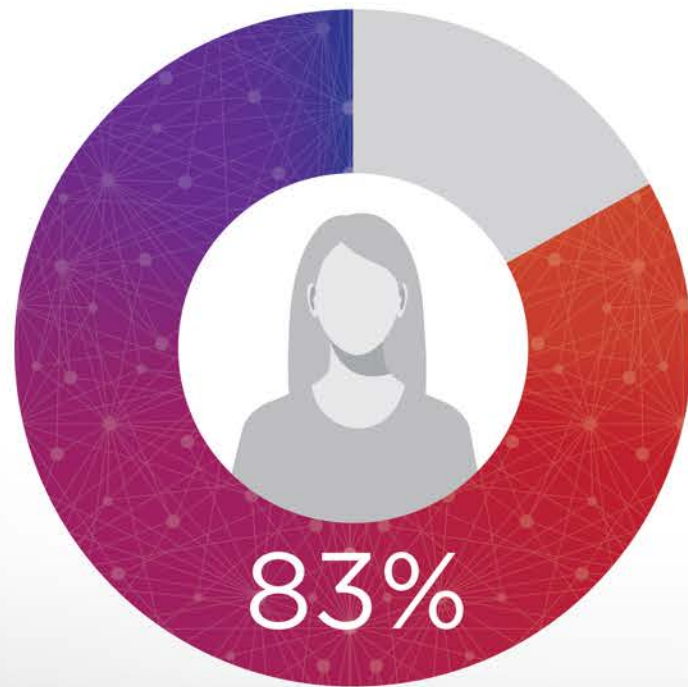
# Percentage of U.S. drivers that would be afraid to ride in a fully self-driving vehicle



Difference between 2016 and 2017 not statistically significant.

# Gender Differences - Percent Afraid to Ride in Self-Driving Car

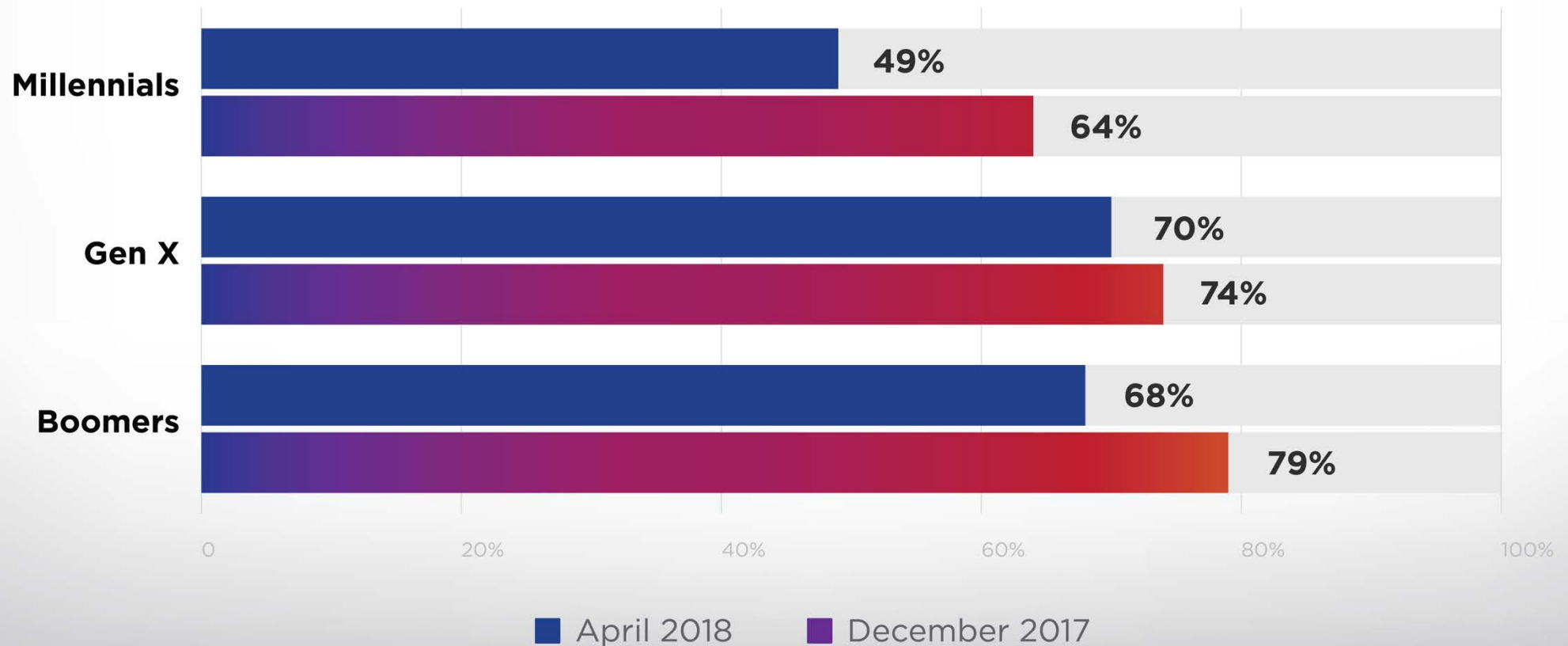
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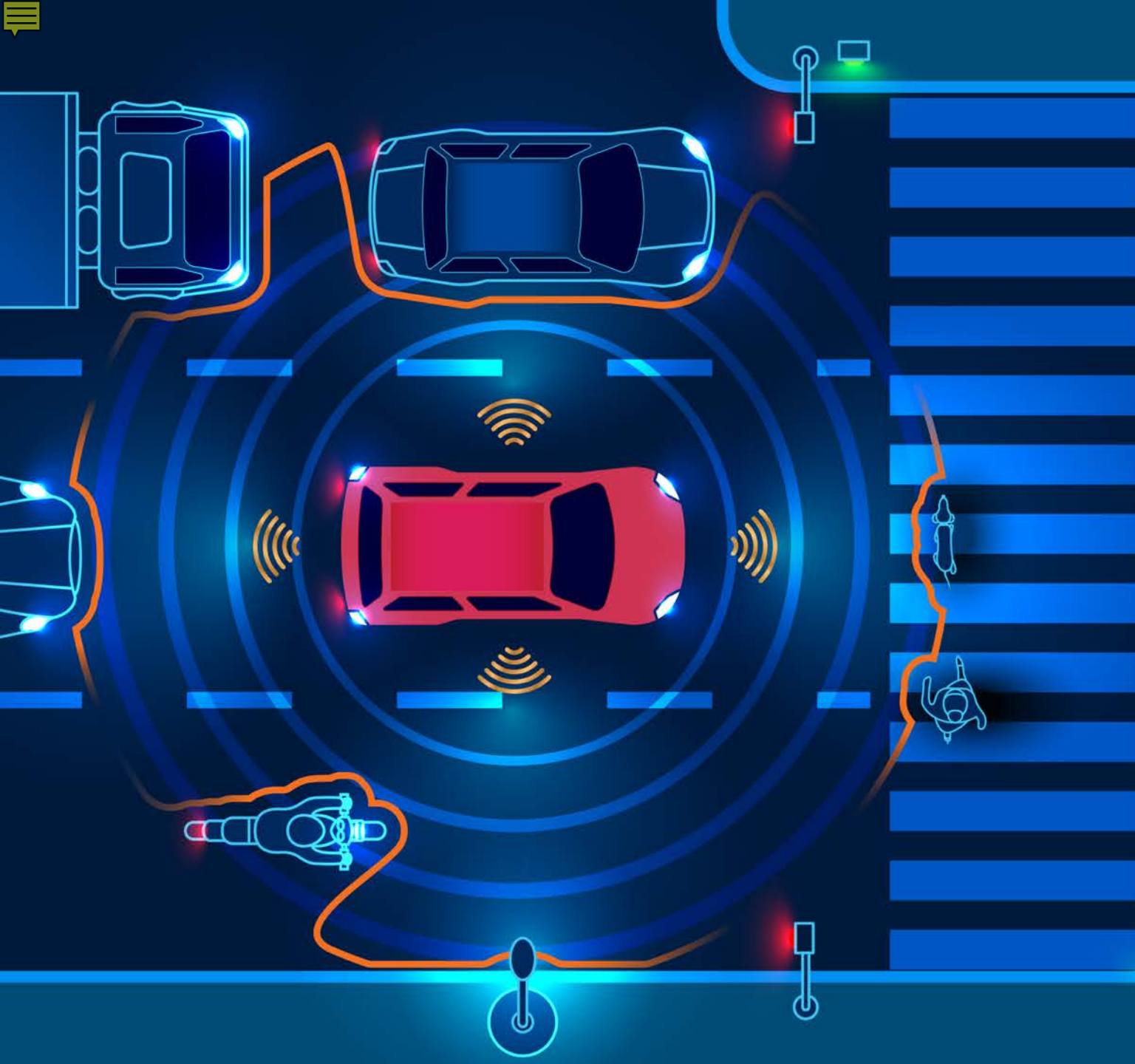




# Generational Differences

Share of U.S. drivers afraid to ride in a fully self-driving car by generation





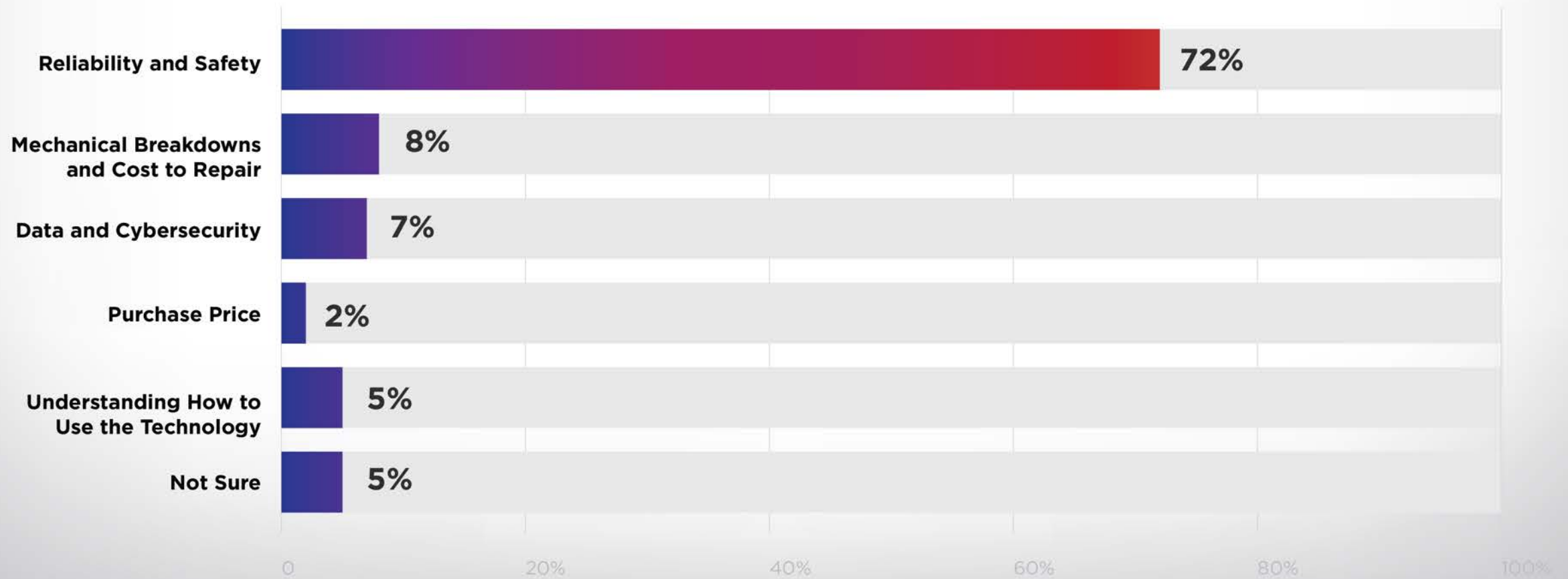
## Sharing the Road

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The survey showed that **63%** of respondents would feel less safe sharing the road with fully self-driving cars while walking or riding a bike.

# Greatest Concern About AVs

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Education can play a key role in easing fears.

**FROM OUR CEO**

## DRIVING INTO THE FUTURE

At Mcity, researchers put cutting-edge automotive technology to the test  
BY AMY S. ECKERT

### What Happens to Safety Begins Driving You?

AA has been at the forefront of the nation's love affair with the automobile for more than a century. From those early days of moty motorized contraptions competing with horse-drawn carriages to today's sleek computers on wheels, AAA motor clubs have always held to the unwavering belief that every American deserves safe, efficient transportation.

Today, society is on the verge of a seismic shift in safety and mobility as autonomous vehicle technology is deployed across more and different transportation modes.

While we understand and challenge the technologies and their implications for motorists, the potential safety impacts of driverless vehicles should not be underestimated.

Each year, roughly 35,000 people lose their lives in traffic crashes on our nation's roadways, and millions more

While there are sure to be bumps in the road to technology, and many of the safety, licensing, and liability laws and regulations have yet to be written, auto manufacturers are racing at full speed to get these vehicles on the road. As futuristic as some of these advances may seem, you might be surprised to know that many of the technologies are already in use.

AA is working to ensure that federal, state and private-industry officials maintain a balance between innovation and public safety.

AAA Public and Government Affairs staff is serving on, in some cases, seeking to form state autonomous-vehicle task forces to guide safe deployment of this potentially transformative technology. In Maryland and Pennsylvania, for example, AAA Public Affairs staff serve on state task forces evaluating the impacts of driverless technology on safety, insurance, law enforcement, licensing, privacy, cyber security and road testing. We are looking to help form similar task forces in Ohio, Kentucky, Delaware, Virginia and New Jersey this year. AAA views the development of autonomous vehicles from the perspective of the driver and consumer, and related my about how technology as well as planning. Here 4 AAA

**Technology Takes the Wheel**

2018 BI-MONTHLY SEMINARS ON AUTONOMOUS VEHICLES

**KICKOFF SEMINAR**  
Wednesday, Feb. 7, 2018 • 3–5 p.m.

Witchlow Auditorium on UT's Main Campus (1650 N. Westwood Ave.), with reception to follow in adjacent Brady Center

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public & government affairs

Autonomous Vehicles: Coming to a Highway Near You

Car manufacturers, tier one automotive suppliers, technology companies, ride-sharing businesses, universities and other researchers are all racing to develop autonomous vehicles and related components. Some experts predict that we will see fully autonomous self-driving vehicles as soon as 2020, and the pace of change is so rapid that automakers are teaming with other companies to speed development even further. They are also purchasing autonomous-vehicle technology startups and investing in ride-sharing companies to preserve their relevance in the industry in the event that vehicle autonomy has a significant effect on consumers' vehicle buying patterns.



While autonomous vehicles hold the promise of bringing a seismic shift in safety and mobility, AAA is working to ensure that federal, state and private-industry officials maintain a balance between innovation and public safety.

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with some market leaders.

**FORD**—After working on automated car technology for more than a decade, this major automaker expects to have a fully autonomous vehicle in 2021, including high-volume, fully autonomous vehicles for ride-sharing.

**GM**—GM plans to release its Super Cruise semi-autonomous technology on the Cadillac CT6 sedan this year. In 2016, GM paid \$1 billion for technology startup Cruise Automation to boost its own efforts. It also invested \$500 million in the ride-sharing company Lyft, becoming a preferred supplier of cars for its drivers today—and likely delivering autonomous cars to the company in the future.

**TESLA**—This electric-car company has said it may offer fully autonomous vehicles as early as 2018, but a recent fatality in a Tesla operating on Autopilot may affect its timeline, and the

vehicle finished by 2020. Google has logged more than 1.7 million miles in modified production vehicles and custom-designed, low-speed electric cars assembled by Roadstar Industries. Going forward, it is unclear whether Google plans to build its own cars or partner with existing car makers. It's been speculated that Google parent Alphabet Inc. has spun off the self-driving car project into its own business unit to launch a car-sharing service that would compete with Uber.

**UBER**—The ride-sharing giant expects to have autonomous vehicles in its fleet by 2020, and it is both developing its own technology and partnering with others to get there. The company opened a research and development facility in Pittsburgh, Pennsylvania, in 2015 and is testing self-driving cars there. It also partnered with the University of Arizona on mapping and optical sensor technology as well as with Volvo to help Uber drivers lease vehicles.

**THE SHIFT TO AUTONOMY**

BIG BETS FROM TECH AND AUTO ACCELERATE THE DEVELOPMENT OF SELF-DRIVING CARS

# Automated Vehicles: AAA Testing

**THE WALL STREET JOURNAL.**  
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## AAA Warns of Misconceptions Regarding Automatic Braking Systems

Auto club says consumers need to be better educated on distinctions between system types




**FORTUNE**

## AAA Says Not All Automatic Braking Systems Are Designed to Prevent Car Crashes

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## Always look when you change lanes

Despite massive improvements in car safety, AAA says drivers still need to keep their eyes open.

A new AAA report finds that car safety options that are supposed to work most of the time, but drivers need to be aware of some limitations they have.

"AAA's tests found that these systems are a great asset to your car," AAA managing director of automotive engineering said in a statement.

The car owners' group tested blind spot monitoring systems

**The DETROIT Bureau**  
THE VOICE OF THE AUTOMOTIVE WORLD

## New Cross Traffic Alert Systems Often Fail, Warns AAA

by Paul A. Eisenstein on Dec.10, 2015

A major new safety technology frequently fails to work as promised, according to a new study by the AAA, leading to parking lot crashes and injuries to pedestrians and bicyclists.

The problem is complicated by the fact that more than three quarters of U.S. drivers "park incorrectly," the road service and safety organization reported. That further enhances the risk of accidents in parking lots, according to the AAA study.



An illustration shows how a cross-traffic alert system works, by spotting oncoming traffic.

"Recognizing that American parking habits differ from much of the world, automakers are increasingly adding technology to vehicles that is designed to address rear visibility concerns," said John Nielsen, AAA's managing director of Automotive Engineering and Repair. "However, AAA's testing of these systems reveals significant shortcomings."

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# AAA Foundation for Traffic Safety

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New technology will help reduce collisions and injuries... but it's a long road to full autonomy.





Driverless Car Mishap #13





# The Road to Consumer Acceptance

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- Safety first
- Public education
- Truth in advertising
- Driver training
- Standardization of terminology
- Data transparency
- Include consumer perspective in policy discussions





Thank You