



Public Opinion Polls Show Deep Skepticism About Autonomous Vehicles

2020 Engine Insights CARAVAN Surveyⁱ

- 85% of Americans said they would be concerned about being on the road with driverless cars as a motorist, bicyclist or a pedestrian.
- 71% support government-mandated minimum safety requirements for new driverless car technologies.
- Just 37% said they were comfortable with proposals that would allow the sale of up to 100,000 vehicles equipped with driverless technologies that did not meet existing federal safety standards.
- 74% support government-issued cybersecurity rules to protect against the hacking of driverless cars.
- 76% support requiring driverless cars to pass a ‘vision test’ like licensed drivers must now pass.
- 68% said they would be less concerned about driverless cars if they knew that companies had to meet minimum safety requirements before selling them to the public.

2019 Reuters/Ipsos Pollⁱⁱ

- 64% of Americans said they would not buy a self-driving car.
- 67% said self-driving cars should be held to higher safety standards than traditional cars.

2019 AAA Pollⁱⁱⁱ

- 71% of U.S. drivers surveyed would be afraid to ride in a fully self-driving vehicle.

2018 SADD/State Farm Survey^{iv}

- When asked to rate how safe they would feel riding in a fully autonomous vehicle on a one-to-five scale with one being least safe and five being most safe, 55.6% of high school students polled said one.

2018 Allianz Global Assistance Survey^v

- 57% of Americans say they are not very or not at all interested in utilizing self-driving/autonomous vehicles - up from 47% in 2017.
- When asked why they had a lack of interest in self-driving/autonomous cars, 71% of respondents cited safety concerns - up from 65% in 2017.
- The number of Americans who said they were not very or not at all confident that that self-driving/autonomous cars will develop safely enough to consider using jumped 12 percentage points from 36% in 2017 to 48% in 2018.

2018 Cox Automotive Survey^{vi}

- 45% of respondents believe roadways would be safer if all vehicles were fully autonomous – down from 63% who said so in 2016.
- 68% of consumers said they’d feel uncomfortable riding in an autonomous vehicle fully driven by a computer.
- 84% of consumers think people should always have the option to drive themselves even in an autonomous vehicle.
- 75% of respondents believe autonomous vehicles need real world testing in order to be perfected but:
 - 54% prefer that this testing take place in a different town or city from where they live;
 - 54% would not feel comfortable walking near roads where these tests take place; and,
 - 50% would not feel comfortable driving on the same roads where these tests take place.

2018 ORC International Poll^{vii}

- 69% of respondents said they were concerned about sharing the road with driverless vehicles as motorists, bicyclists and pedestrians.
- 80% of Americans said that National Transportation Safety Board (NTSB) investigations of crashes involving cars equipped with self-driving technology will be helpful in identifying problems and recommending improvements.

- 84% of respondents believe the NTSB should complete these crash investigations before Congress acts on driverless car legislation.

2018 Public Policy Polling/Consumer Watchdog Poll^{viii}

- When informed that Congress is currently considering legislation to allow more driverless cars onto America's roads, 75% of respondents from four states (FL, CA, MI, SD) agreed that we need to apply the brakes on driverless cars until the technology is proven safe.
 - 78% of voters agreed in Florida.
 - 71% agreed in California.
 - 74% agreed in Michigan.
 - 79% agreed in South Dakota.
- 76% of voters in Florida said they would not be likely to ride in a driverless car if it were available. 69% said so in California, 69% said so in Michigan and 77% said so in South Dakota.
- 84% of voters in Florida agreed that there should be regulations in place to help protect the public from public experiments with driverless cars. 87% agreed in California, 86% agreed in Michigan and 82% agreed in South Dakota.
- 80% of respondents agreed that federal and state governments, and not the driverless car industry, should regulate driverless vehicles for the safety of riders, pedestrians and other drivers.
- 56% of voters polled said they would be very concerned for their safety as a passenger, pedestrian, bicyclist or other driver on the road if a driverless car service were operating in their city.
- 56% of respondents said they were very concerned about the security of the data collected by driverless vehicles.
- 59% of voters polled said that they do not think that in their lifetimes, driverless cars will be safe enough to use.

2018 AAA Poll^{ix}

- 73% of American drivers said they would be too afraid to ride in a fully self-driving vehicle, up from 63% in late 2017.
- 63% of U.S. adults said they would feel less safe sharing the road with a self-driving vehicle while walking or riding a bicycle.

2018 Gallup Poll^x

- 52% of Americans said that even after driverless cars are certified by government auto safety regulators, they would never want to use one.

2018 CARiD Survey^{xi}

- 53% of respondents said they would feel somewhat or very unsafe riding in an autonomous car.
- 66% of those polled said they think the U.S. government must be involved in regulating autonomous vehicles.
- 75% of poll respondents said that if given a choice, they would still rather drive than ride autonomously.

2018 Morning Consult Poll^{xii}

- 50% of U.S. adults said that based on what they have seen, read or heard, they believe self-driving cars are somewhat less safe or much less safe than regular vehicles driven by humans.
- 57% of those polled said that based on what they have seen, read or heard, they have a not too favorable or not at all favorable view of self-driving cars.
- 38% of respondents said they would not ride in a self-driving car, versus 19% who said they would and 35% who said maybe in the future.

2018 Reuters/Ipsos Poll^{xiii}

- 67% of Americans polled said they were uncomfortable with the idea of riding in self-driving cars.

2018 Morning Consult Poll^{xiv}

- 67% of adults polled were somewhat or very concerned about cyber threats to driverless cars.

2018 ORC International Poll^{xv}

- 64% of respondents said they were concerned about sharing the road with driverless cars.

- 63% said they are not comfortable with Congress increasing the number of driverless cars which do not meet existing federal vehicle safety standards and would be available for public sale.
- 75% of Americans said they weren't comfortable with manufacturers being able to disable vehicle controls, such as the steering wheel, and brake and gas pedals, when an AV is being operated by the computer.
- 73% of those polled support the development of U.S. Department of Transportation safety standards for new features related to the operation of driverless cars.
- 81% said they support U.S. Department of Transportation cybersecurity rules to protect against hacking of cars that are being operated by a computer.
- 84% of Americans said they support uniform U.S. Department of Transportation rules to ensure that the human driver is alert in order to safely take control from the computer.
- 80% of respondents support minimum performance requirements for computers that operate driverless cars similar to those for computers that operate commercial airplanes.
- 87% said it would be helpful to have a U.S. Department of Transportation website for consumers to look up information about the safety features of a new or used driverless car which they may be purchasing.

2017 Pew Research Center Survey^{xvi}

- 56% of U.S. adults surveyed said they would not ride in a self-driving vehicle.
- Of those who said they wouldn't, 42% of respondents said they didn't trust the technology or feared giving up control and 30% cited safety concerns.
- 30% of respondents think that autonomous vehicles will make roads *less* safe for humans if they become more widespread.
- 87% of respondents said they would favor a requirement that all driverless vehicles have a human in the driver's seat who can take control of the vehicle in case of an emergency.
- 53% of people surveyed said the development of driverless cars makes them feel very or somewhat worried.
- 52% said they would feel not too or not at all safe sharing the road with driverless passenger vehicles.
- 65% said they would feel not too or not at all safe sharing the road with driverless freight trucks.

2017 Morning Consult/POLITICO Poll^{xvii}

- 51% of registered voters polled said they were not too likely or not likely at all to ride as a passenger in an AV.
- 61% of respondents said they aren't likely to buy self-driving cars once they become available.
- 35% of those polled said they believe AVs are less safe than the average human driver, compared to 22% who said they were safer than human drivers and 18% who said AVs were about the same level of safety as the average human driver. Over a quarter (26%) said they didn't know or had no opinion.

2017 Deloitte Study^{xviii}

- 74% of U.S. consumers polled said they felt that fully autonomous vehicles will not be safe.
- 68% of respondents said an established track record of fully autonomous cars being safely used would make them more likely to ride in one.

2017 MIT AgeLab and New England Motor Press Association Survey^{xix}

- 13% of respondents said they would be comfortable with a fully autonomous car, down from 24% in a similar 2016 survey.
- 48% said they would never purchase a car that completely drives itself when asked about their interest in purchasing a self-driving car.
- Of those who said they wouldn't purchase a completely driverless car, 37% said they feared a loss of control, 29% said they don't trust it, 25% said they believe it will never work perfectly, and 21% said it's unsafe.

2017 AAA Survey^{xx}

- 54% of U.S. drivers polled feel less safe at the prospect of sharing the road with a self-driving vehicle. Moreover, only 10% said they'd actually feel safer sharing the roads with driverless vehicles.
- 78% of Americans surveyed said they were afraid to ride in a self-driving vehicle.

2016 Kelley Blue Book Study^{xxi}

- 51% of respondents said they would prefer to have full control of their vehicle, even if it's not as safe for other drivers.

- 64% said they need to be in control of their vehicle.

2016 Morning Consult Poll^{xxii}

- 43% of registered voters polled said autonomous cars are not safe. About one-third (32%) said they are safe, but that's not much more than the 25% who said they didn't know or didn't care.
- Majorities of voters found it unacceptable for a rider in a driverless car to text or email, read, watch movies or TV, be drunk or sleep.
- 76% said they were as worried about driverless cars operating on the same roads as cars driven by humans.
- When asked broadly about road safety, 80% said they were concerned. Likewise, 80% of respondents said they were concerned about glitches in an autonomous car's software.

Compiled by Advocates for Highway and Auto Safety, July 2019

ⁱ Advocates for Highway and Auto Safety, Engine Insights CARAVAN Survey: Public Concern about Driverless Cars is Strong, and the Support for Performance Requirements is Clear, January 2020

ⁱⁱ Americans still don't trust self-driving cars, Reuters/Ipsos poll finds, April 2019

ⁱⁱⁱ AAA Annual Automated Vehicle Survey, March 2019

^{iv} SADD/State Farm, Teens' Thoughts Regarding the Future of Vehicle Technology, October 2018

^v Allianz Global Assistance, Sharing Economy Index, September 2018

^{vi} Cox Automotive, Evolution of Mobility: Autonomous Vehicles, August 2018

^{vii} ORC International and Advocates for Highway and Auto Safety, CARAVAN Public Opinion Poll: Public to U.S. Senate: Pump the Brakes on Driverless Car Bill, July 2018

^{viii} Consumer Watchdog, As Americans Hit the Road for Memorial Day, Consumer Watchdog Poll Finds Voters Want Congress to Apply the Brakes on Driverless Cars, May 2018

^{ix} American Automobile Association (AAA), American Trust in Autonomous Vehicles Slips, May 2018

^x Gallup, Driverless Cars Are a Tough Sell to Americans, April 2018

^{xi} CARiD and SurveyMonkey, How do American feel about autonomous driving?, April 2018

^{xii} Morning Consult, National Tracking Poll #180339, April 2018

^{xiii} Reuters and Ipsos, Reuters and Ipsos Poll poll of 2,592 participants conducted between Jan. 11-18, 2018, January 2018

^{xiv} Morning Consult, National Tracking Poll #180108, January 2018

^{xv} ORC International and Advocates for Highway and Auto Safety, CARAVAN Public Opinion Poll: Driverless Cars January 2018

^{xvi} Smith, A. and Anderson, M., Pew Research Center, Automation in Everyday Life, October 2017

^{xvii} Morning Consult and POLITICO, National Tracking Poll #170904, September 2017

^{xviii} Deloitte Global Automotive Consumer Study, What's ahead for fully autonomous driving: Consumer opinions on advanced vehicle technology, January 2017

^{xix} Abraham, H., Reimer, B., Seppelt, B., Fitzgerald, C., Mehler, B. and Coughlin, J., MIT AgeLab and New England Motor Press Association (NEMPA), Consumer Interest in Automation: Preliminary Observations Exploring a Year's Change, May 2017

^{xx} American Automobile Association (AAA), Vehicle Technology Survey – Phase II, March 2017

^{xxi} Kelley Blue Book and Cox Automotive, Future Autonomous Vehicle Driver Study, September 2016

^{xxii} Nasr, A. and Johnson, F., Morning Consult, Voters Aren't Ready for Driverless Cars, Poll Shows, February 8, 2016