



PAVE Poll Briefing #1:

Understanding the AV perception challenge

Poll information: 1,200 adults from across the United States were polled between 2/27/20 and 3/5/20 on behalf of PAVE. 678 of these respondents reported owning cars with advanced driver assistance system (ADAS) features and were asked an additional battery of questions. A sample of 200 adults with reported “mobility issues” were also surveyed.

The results of this survey show that autonomous driving technology faces serious perception challenges that both AV developers and educators like PAVE need to confront head-on. Though these challenges are not new, their persistence over time shows that they are here to stay unless something can be done about them.

- nearly 3 in 4 Americans say autonomous vehicle technology “is not ready for primetime”
- 48% of Americans say they “would never get in a taxi or ride-share vehicle that was being driven autonomously”
- 20% of Americans think AVs will never be safe
- only 34% of Americans think “the advantages of AVs outweigh any potential disadvantages”
- only 18% of Americans agree with the statement “if there was a website to get on a waiting list for the first AV, I’d put my name down.”

However, the challenges do not seem to be solely tied to specific instances of bad publicity around automated driving, like the fatal Uber crash in Tempe, AZ in 2018 or the Tesla Autopilot-involved crashes.

- Most Americans know “nothing at all” (51%) or “a little” (37%) about the Uber-Tempe crash, and those who report knowing “a lot” are more likely to say that AVs are safe now (32%) than those who report knowing “a little” (11%) or “nothing” (7%).
- Most Americans know “nothing at all” (49%) or “a little” (38%) about Tesla Autopilot crashes, and those who report knowing “a lot” are more likely to say AVs are safe now (26%) than those who report knowing “a little” (11%) or “nothing” (7%).

Questions that elicited more negative or skeptical sentiment toward AVs also tended to elicit higher percentages of “not sure” answers, as did questions about the broad social impacts of AVs compared to personal preferences, indicating that negativity arises in the areas where the public’s understanding of AVs and their impacts is lower. Most respondents also said they would trust AVs more if they understood them better or had the chance to ride in one, confirming the link between ignorance and negativity/skepticism.

- 60% of Americans said they would have greater trust in AVs if they “understood better how the technology works.”
- 58% of Americans said they would have greater trust in AVs if they “had a chance to experience an AV ride” firsthand.
- Americans who expressed positive sentiment toward AVs in responses to true/false questions tended to rate their knowledge of AVs considerably higher than those who

expressed negative sentiment. For example, respondents who said they would “never get in a taxi or ride-share vehicle that was being driven autonomously” rated their knowledge of AVs as -32 (roughly the same as those who responded “not sure”) whereas those who would consider riding in such an autonomous vehicle rated their AV knowledge 1.

Americans report more positive sentiment toward advanced driver assistance systems (ADAS) than they do about AVs and the 678 Americans polled who own a vehicle with ADAS features are generally more positive about the entire spectrum of automated vehicles, including AVs.

- Americans who own vehicles with ADAS features agreed with the statement “the advantages of AVs outweigh any potential disadvantages” at above-average rates (average=34%), with the highest percentages correlating with ownership of more advanced features like Active Parking Assist (58%), Heads-Up Display (54%) and Lane Keeping Assist (51%).
- 75% of Americans who own vehicles with ADAS agree that they “can’t wait to see what new safety features will be in my next vehicle” and “will feel safer on the road when I know that most other vehicles have enhanced safety features.”
- Reactions of all Americans to the idea of “a vehicle with safety systems that support a human driver, but with the human driver always in full control” were significantly more favorable (49) than reactions to the idea of a “self-driving car” (3), “autonomous vehicle” (-3) and “driverless car” (-13).

The detail in these poll results provides a unique insight into the perception challenges facing AVs right now, both reinforcing the seriousness of these issues while also suggesting a path through them. A wide range of data points suggest that skepticism and hostility toward AVs is rooted in the public’s lack of information and experience with them, rather than knowledge of a specific downside or problem. Moreover, the more favorable responses to ADAS reinforce the view that familiarity with real consumer products breeds public comfort and trust with the technology.

Because AVs are currently only deployed in limited regions, cultivating the necessary level of public experience and familiarity with them will be challenging. This of course compounds the fundamental challenge of explaining the complex technology underlying AVs, as well as clearing up confusion between autonomous and driver assistance systems. Still, by rooting educational efforts in real-world deployments and experiences, and building on the steady proliferation of AVs to more cities and regions, PAVE sees a clear path toward much higher levels of education about AVs... and with that, greater public acceptance of this important technology.

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