



Children in Automated Vehicles

What is the issue?

- All stakeholders should proactively consider children at each stage of AV development and introduction so that unintended consequences won't turn what should be lifesaving technology into a danger for children.
- The safety of average vehicle occupants alone cannot be the benchmark for determining when this technology is ready for introduction.
- Making sure that automated vehicles do not increase the safety risk for children will require policymakers to address the following questions:
 - Who is responsible for restraining children correctly in an automated vehicle?
 - Can children travel alone in automated vehicles?
 - How should new vehicle certification legislation for automated vehicles accommodate the needs of children?

What can you do?

- As your jurisdiction develops the legislative and regulatory framework under which autonomous vehicles will operate,
 - assign responsibility for appropriately restraining children under age 13;
 - specify an age below which a child occupant cannot travel alone and the conditions under which other child occupants can; and
 - incorporate the needs of children into any autonomous vehicle certification requirements.
- Redesign your crash reports to incorporate data on child occupant injuries in vehicles with advanced driver assistance systems and autonomous vehicles. Good data will be needed to determine if the steps your jurisdiction has taken are working and to identify any gaps.

Resources

- Safe Kids Worldwide: www.safekids.org/AVs

Background

- Airbags were introduced as a supplement to seat belts to provide enhanced occupant protection against deaths and serious injuries in traffic crashes. Unfortunately, deaths among children from inflating airbags occurred at a recorded alarming rate as this new technology was introduced (70 deaths during the years 1993-1997, according to the U.S. National Highway Traffic Safety Administration).¹ In response, after conducting a study of injury crashes involving children in 1996, the U.S. National Transportation Safety Board concluded that passenger-side airbags, as they were currently designed, were “not acceptable as a protective device for children positioned in front of them and [could] kill or critically injure these children” in crashes that would have been survivable had the airbag not deployed.²
- As vehicle automation is developed and introduced, we must apply past safety lessons, to ensure that our most vulnerable road users, our children, are protected. In 2018, Safe Kids Worldwide convened a Blue Ribbon Panel of nationally recognized child safety advocates and transportation experts to examine and make recommendations for ensuring the needs of children throughout the development and deployment of automated vehicles.
- To implement the Blue Ribbon Panel’s recommendations, Safe Kids Worldwide convened the Consortium on Protecting Children in Autonomous Vehicles – a group of top-level researchers, vehicle- and child-restraint manufacturers, law enforcement officers, consumer advocacy groups, communications experts, EMS and fire safety professionals, an attorney and public health organizations representing 17 U.S. states and three additional countries. Over 2 years, Consortium members developed guidance and tools addressing (1) policy, legislation and enforcement; and (2) public information and education.

¹ https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/kindelberger_abg.pdf

² <https://www.nts.gov/safety/safety-studies/Documents/SS9601.pdf>