

The Future of Auto

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America's love affair with the automobile will undergo a significant change in the next few years, with repercussions that will impact society as a whole. Autonomous or driverless vehicles will radically transform everyday life. Helping clients understand and prepare for this change is another value-added service of the professional insurance agent.

Many auto manufacturers estimate that they will have driverless vehicles by the year 2020. It is predicted that driverless cars will be all over the world by 2025 (www.driverless-future.com). UBER is rumored to have plans for a self-driving fleet. A recent study determined that the number of cars owned could drop by 43%. Google estimates that vehicle ownership could drop by 90%.

Frequency and severity of accidents are projected to decrease dramatically with autonomous vehicles. Even without a fully autonomous vehicle, assisted driving technology is now standard on many vehicles, including such improved safety features as blind spot assist, crash avoidance (emergency braking), lane assist and speed control. The U.S. Department of Transportation's National Highway Traffic Safety Administration and the Insurance Institute for Highway Safety announced on March 17, 2016 a commitment by 20 automakers, representing more than 99 percent of the U.S. auto market, to make automatic emergency braking a standard feature on virtually all new cars no later than NHTSA's 2022 reporting year, which begins Sept. 1, 2022.

One concern is that these safety features may make drivers less alert to the hazards around them. The Wall Street Journal (3/11/16, Car Makers Test Technology to Make You Pay Attention to the Road by Elizabeth Dvoskin and Mike Ramsey) reports that major car makers

are experimenting with artificial intelligence systems to evaluate drivers and their fitness while operating vehicles. This raises privacy concerns and other issues such as reduction in driving skills, as there is more reliance on automated assistance.

Google's self-driving cars have already logged over a million miles, with only one reported accident that was caused by the vehicle. In February 2016, a Google car shifted lanes to avoid traffic cones and hit a passing bus. The Google car "thought" the bus would stop. Modifications were subsequently made to the software to allow the driverless car to anticipate such situations. While addressing all possible scenarios is probably not realistic, additional modifications will be required to address those that come to light. Additional "real world" testing is required.

Insurance ramifications will come in reduced claims frequency and severity, which will result in lower premiums. Fewer automobiles owned will also mean lower premiums. Rating criteria, such as age of driver, may become meaningless. Insurance agents and companies will need to look to other income sources as the personal auto insurance market shifts. Traditional auto carriers will out of necessity branch to other lines of business to survive.

One area of impact that may not be readily apparent is the benefit of autonomous vehicles to the visually and physically handicapped and the elderly. A visually impaired person would not need someone else to drive them around. Elderly people who no longer feel comfortable driving can maintain their independence. It is possible that driverless cars could reduce the number of drunk driving accidents. Another benefit would be the tracking capability – parents will



know if their teen changed the route rather than go straight home.

Cyber security is an issue. Fully self-driving cars do not have steering wheels or pedals. A car's system could be hacked and the passenger might have no way to control the vehicle.

There are other questions to be addressed. If drivers are not required, how will that impact licensing laws? The states now regulate licensing. How will state laws interface with federal regulations? Can children ride in such vehicles without adult supervision?

Auto repair shops will see a decrease in business. A driverless car means that fewer cars will be needed. A "return home" feature could allow a car to drop someone off and then return home for use by another family member.

Another concern is how these vehicles will be regulated. Transportation Secretary Anthony Foxx stated during an event held on March 29, 2016 that his department will unveil regulatory guidance for driverless cars in the coming months. He acknowledged the importance of developing a cohesive federal framework in order to encourage the development and sale of self-driving cars.

The future of auto is here and it has global implications. There are many open questions on the final outcome of this exciting technology. Helping clients anticipate and adapt to changes is another sign of the true insurance professional.

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