The Truth about Advanced Driver Assistance Systems (ADAS)

Advanced driver assistance systems (ADAS) are helping drivers with reducing auto accidents and will impact the future of driverless cars, but there are limitations.

"My latest article in Actuarial Review is a must-read for consumers and the insurance industry that serves them. Moving Parts: ADAS Go For a Ride moves beyond the generalizations to help readers understand the advantages and the multiple limitations of automatic safety parts.

My article also provides a one-of-a-kind sidebar that provides at-a-glance information per ADAS feature based on multiple sources. Trust me, it was not easy to assemble, so do enjoy!

Key ADAS Take-Aways

- As evolving features, the safety-encouraging parts are not perfect. There a few situations when they can cause accidents.

- Vehicles with ADAS features are unaffordable for the majority of Americans. The cost of a new car, never mind the ADAS features, is more than half the average American family's income. Used cars average $20,000.

- It will take several years, if not more than a decade, for ADAS to be commonplace on American roads. Why? Americans are keeping their older cars longer than ever because they are well-built and car payment free.
- Repair costs are expensive and technicians can be hard to find.

- Unless insurers see a marketing opportunity, do not expect discounts for having ADAS in your vehicle. The safety features can help prevent accidents, but repairs are costly.
- Due to a lack of data, insurers are still getting up to speed on the impact of ADAS, which varies by vehicle make and model.

- Manufacturers know the most about their ADAS systems but they are not sharing data with insurers. Tesla's executives believe there is adequate data to offer competitive auto insurance, but its introduction has been a bumpy ride.

ADAS and Driverless Cars

The article also offers a more realistic consideration of the future of driverless car safety. The evolution of safety technology for conventional vehicles is not much different than for driverless cars.

This is a big deal. For the past five years, driverless car enthusiasts have stressed the future safety advantages of automated vehicles. It was backed up with faulty logic presuming that since most

accidents are caused by humans, another misnomer, driverless cars would make the roads safer. (Please read my award-winning article about driverless cars for further explanation.)

It would have been better if driverless car advocates empathized convenience rather than safety. But here again, as both conventional vehicles and driverless cars evolve, their differences will probably be few over time. There is also a growing acknowledgment that drive-free cars might never come to fruition, requiring drivers as the final safety, ironically, when technology finds its limits.

The Bottom Line

ADAS is showing its mettle for preventing accidents. Any automation should be viewed as *tools for drivers*, rather than the *replacement of drivers*. After all, humans do not just cause accidents. They prevent accidents too.

Actuaries Applying Advanced Analytics in Non-Traditional Roles

Actuaries applying advanced analytics in non-traditional insurance roles are deploying their acumen to solve business problems.

Actuaries applying advanced analytics provide a window into the profession's future.

As demonstrated in Part II of my *Actuarial Review* series about "the others," actuaries applying advanced analytics are working in various industries. ("The others" are members of the Casualty Actuarial Society who *not* working in traditional insurance industry actuarial roles.)

Part II features four actuaries applying advanced analytics in very exciting ways. It provides a window into the future of the actuarial profession. Increasingly, actuaries will be serving in roles beyond pricing and reserving. As technology moves forward, advanced analytics and artificial intelligence will become more commonplace, offering new potential roles to actuaries.

The article features:

Kevin Kuo, Software Engineer, RStudio After serving as a life actuary, Kuo applied predictive analytics for direct mail credit card acquisitions for Citibank. He's now working to enhance "R" software to offer big data and deep learning capabilities.

Aaron Fezatte, Strategy Manager, Expedia. Beginning his career as a P&C actuary for Liberty Mutual, he secured a job with Expedia to develop new ways to price and offer travel insurance.

Cathine Lam, Data Scientist, Economics & Actuarial Team, Metabiota. The former Milliman

Inc. consultant works to track infectious diseases around the world and supports her company's software product. Insurance companies and government entities are key clients.

Frank Chang, Director of Insurance and Safety Analytics, Uber. Chang wrote for *The Motley Fool* and handled pricing for Esurance before working for Google and then joining a team at Uber. His multifold role includes applying analytics to encourage risk management and insure Uber drivers.

The first article about "the others," published in the September/October edition of *Actuarial Review*, was highly popular, attracting hundreds of visitors. This second and final article is a ***must read*** because it showcases how actuaries applying advanced analytics and forging new pathways for the profession.

During the past few years, I've written several articles about advanced analytics and the actuarial profession. If you would like to check them out, please visit the actuarial section of this blog. My next *Actuarial Review* article covers insurtech. Slated for early January, it explains how and why insurtech will be changing the insurance value chain – forever.