ADAS Instructions in Owner's Manuals

A common reason given by members of the industry for their opposition of a side guard regulation is that they would prefer that NHTSA put their focus on crash avoidance technologies in order to prevent crashes from occurring. Related to this:

- 1. This chart outlines the limitations in crash avoidance technologies even in late model autos, which means that those vehicles could not reliably prevent a collision.
- The fleet turnover rate can be as high as 19.6 years for cars; so there are still many years before we could expect a substantial decrease in collisions with trucks. According to one study, <u>Vehicle fleet turnover and the future of fuel economy</u>:
 - a. Surveys we have undertaken on both the general public and highly-educated MIT graduate students indicate that people systematically underestimate how long it takes for new vehicles to move through the fleet, and underestimate how long new vehicles last on average (figure 1), which has increased over time with improving new vehicle quality [9]. These misperceptions are likely to lead people to underweight the effect that the vehicles we purchase today will have into the future, and be overly optimistic about how quickly new technologies can diffuse into the on-road vehicle fleet.
 - b. The scenario establishes a lower-bound on the time it takes for the fleet to turn over, assuming that all vehicles remain in the fleet for the term of their useful life. Simulating the evolution of the fleet, we find that it takes 19.6 years for the new technology to account for 90% of the on-road fleet (figure <u>2</u>), even though the average vehicle lifetime is only 16.6 years (figure <u>1</u>), because some vehicles remain in use much longer than average, light trucks in particular.
- 3. Because of these factors, a prudent course of action is Both ADAS/And Underride Protection rather than Either/Or.

Make/Model	Year	Excerpt
Ford Edge	'21	EVASIVE STEERING ASSIST LIMITATIONS Evasive steering assist only activates when all the following occur:
		 Automatic emergency braking and evasive steering assist are on. The system detects a road user ahead and starts to apply the brakes. You significantly turn the steering wheel to steer around a road user.
		Note: Evasive steering assist does not automatically steer around a road user. If you do not turn the steering wheel, evasive steering assist does not activate.

		Note: Evasive steering assist does not activate if the distance to the road user ahead is too small and the system cannot avoid a crash.
		LANE KEEPING SYSTEM LIMITATIONS
		The lane keeping system only operates when the vehicle speed is greater than 40 mph (64 km/h).
		The system works when the camera can detect at least one lane marking or the edge of the road.
		The lane keeping system may not correctly operate in any of the following conditions:
		 The lane keeping system does not detect at least one lane marking. You switch the turn signal on. You apply direct steering, accelerate fast or brake hard. The vehicle speed is less than 40 mph (64 km/h). The anti-lock brake, stability control or traction control system activates. The lane is too narrow. Something is obscuring the camera or it is unable to detect the lane markings due to environment, traffic or vehicle conditions.
		The lane keeping system may not correct lane positioning in any of the following conditions:
		 High winds. Uneven road surfaces. Heavy or uneven loads. Incorrect tire pressure.
Toyota RAV4	'20	
Telluride		
BMW X3		
Subaru Outback	'20	

Cadillac XT6	'20	