

What if every car had Automatic Emergency Braking?

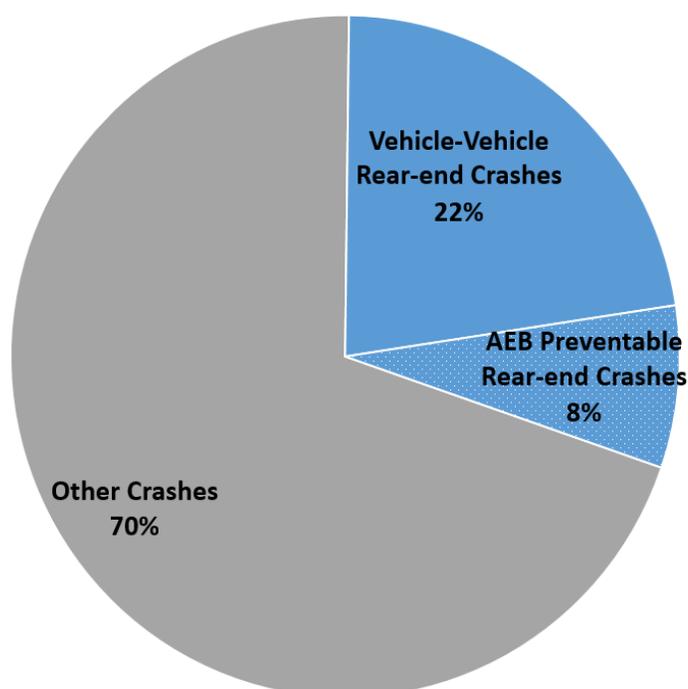
Trends show more automakers are equipping their vehicles with advanced driver assistance systems (ADAS), some companies even making these improvements standard. In 2015, 20 vehicle manufacturers, comprising 99 percent of the U.S. auto market, voluntarily committed to equipping every new vehicle with Automatic Emergency Braking (AEB) by 2022. In 2018, approximately half of new vehicles manufactured included AEB, and increase from less than a third the previous year.



I care, because if every car on the road was equipped with AEB, thousands of crashes and injuries could be prevented on Washington roadways every year. A conservative analysis was performed on 2018 Washington crash data and all vehicle-vehicle rear-end crashes. A group of these rear-end crashes were identified for which AEB would have prevented the crash. AEB preventable rear-end crashes were defined as those occurring on dry roads, with posted speed limits of 35 MPH or less, with no speeding drivers involved, and no vehicles involved with any tire, brake, or power defects.

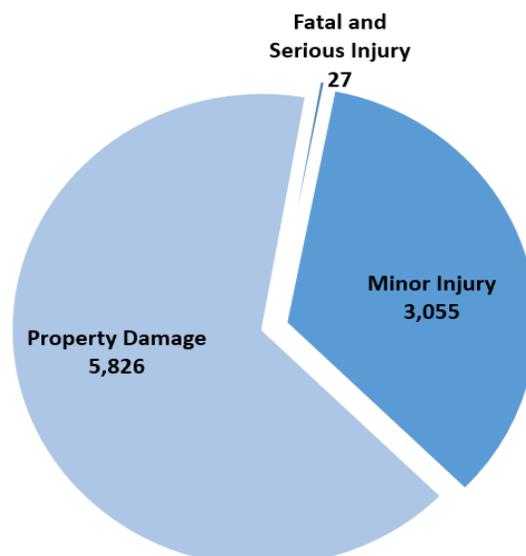
In 2018, AEB could have prevented nearly 9,000 crashes in Washington and saved \$100 million in crash-related costs.

Crashes in Washington State 2018:
What if every car had AEB?



If every car on Washington roads had AEB, then under conservative conditions one-quarter of all rear-end crashes could have been prevented, or eight percent of all crashes in 2018.

- ⇒ 27 fatalities and serious injuries would have been prevented and \$4,053,800 saved.
- ⇒ 3,055 evident and possible injuries would have been prevented and \$69,974,500 saved.
- ⇒ 5,826 property damage crashes could have been prevented and \$25,634,400 saved.



What is Automatic Emergency Braking?

Half of all new vehicles in 2018 were equipped with automatic emergency braking (AEB). AEB uses various sensors to detect and intervene in imminent crash situations. AEB includes a series of escalating stages, typically beginning with a driver warning and ending with automatic brake application. AEB is designed to avoid or mitigate crashes.

Twenty automakers, comprising 99 percent of the U.S. light vehicle sales, voluntarily committed to make low speed AEB standard on all light vehicles by 2022. The National Highway Traffic Safety Administration (NHTSA) develops AEB criteria, and the Insurance Institute for Highway Safety (IIHS) conducts track tests to measure certain minimum speed reductions with automatic braking. This brief focuses on low speed AEB, although some vehicles are also equipped with high speed AEB and pedestrian/bicyclist detection with AEB.

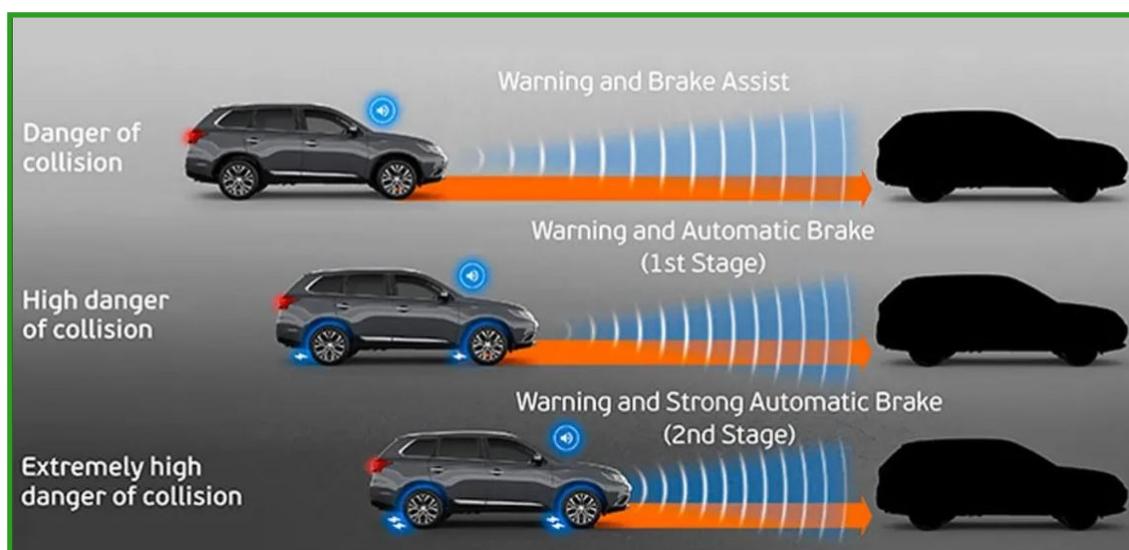


Photo Credit: Motorama.com.au. Accessed November 25, 2019. Blog—Autonomous Emergency Braking. <https://www.motorama.com.au/blog/buyer-advice/autonomous-emergency-braking-aeb/>

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