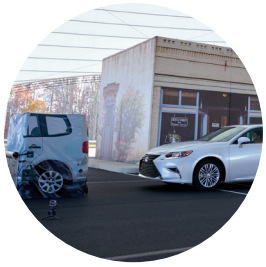
Real-world benefits of crash avoidance technologies

HLDI and IIHS study the effects of crash avoidance features by comparing rates of police-reported crashes and insurance claims for vehicles with and without the technologies. Results below are for passenger vehicles unless otherwise noted.

March 2022



Automatic emergency braking

- ⬇ 50% Front-to-rear crashes
- ⬇ 56% Front-to-rear crashes with injuries
- ⬇ 14% Claim rates for damage to other vehicles
- ⬇ 24% Claim rates for injuries to people in other vehicles
- ⬇ 41% Large truck front-to-rear crashes

Automatic emergency braking with pedestrian detection

- ⬇ 27% Pedestrian crashes
- ⬇ 30% Pedestrian injury crashes

Lane departure warning

- ⬇ 11% Single-vehicle, sideswipe and head-on crashes
- ⬇ 21% Injury crashes of the same types

Blind spot detection

- ⬇ 14% Lane-change crashes
- ⬇ 23% Lane-change crashes with injuries
- ⬇ 7% Claim rates for damage to other vehicles
- ⬇ 9% Claim rates for injuries to people in other vehicles

Rear automatic braking

- ⬇ 78% Backing crashes (when combined with rearview camera and parking sensors)
- ⬇ 10% Claim rates for damage to the insured vehicle
- ⬇ 28% Claim rates for damage to other vehicles

Rearview cameras

- ⬇ 17% Backing crashes

Rear cross-traffic alert

- ⬇ 22% Backing crashes

Added costs

Lower crash rates are a clear benefit of these technologies, but some features can lead to higher repair costs in the crashes that do happen. That's because sensors and other components are often located on the vehicle's exterior. For example, in the case of forward collision warning without autobrake, the average payment per claim for damage to the insured vehicle goes up $117 for vehicles equipped with the feature.