



Insurance Institute for Highway Safety
Highway Loss Data Institute

Safety and the Future of Mobility

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iihs.org



**IIHS is bullish on the future
of vehicle designs and
features that can eliminate
or mitigate crashes...**

\$30,000,000 expansion of Vehicle Research Center



Twenty automakers have committed to make FCW + AEB a standard feature by September 2022

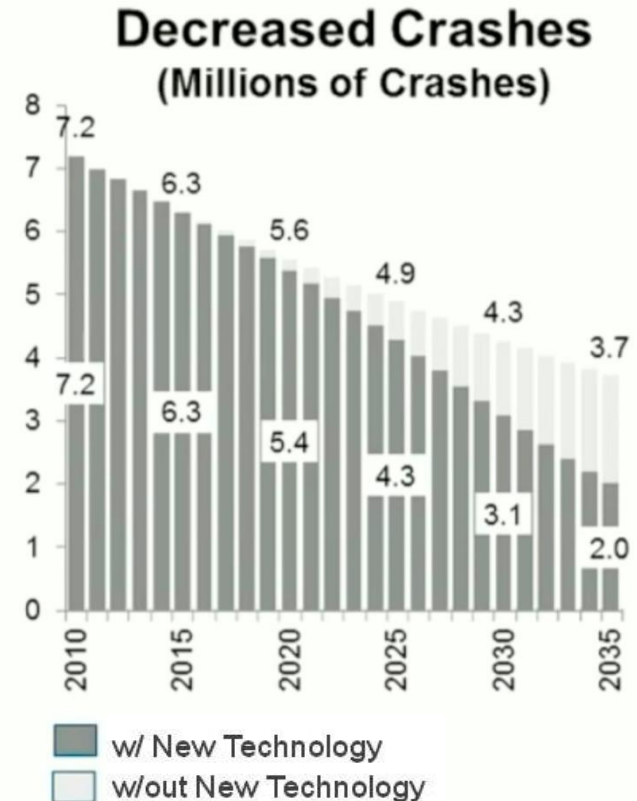
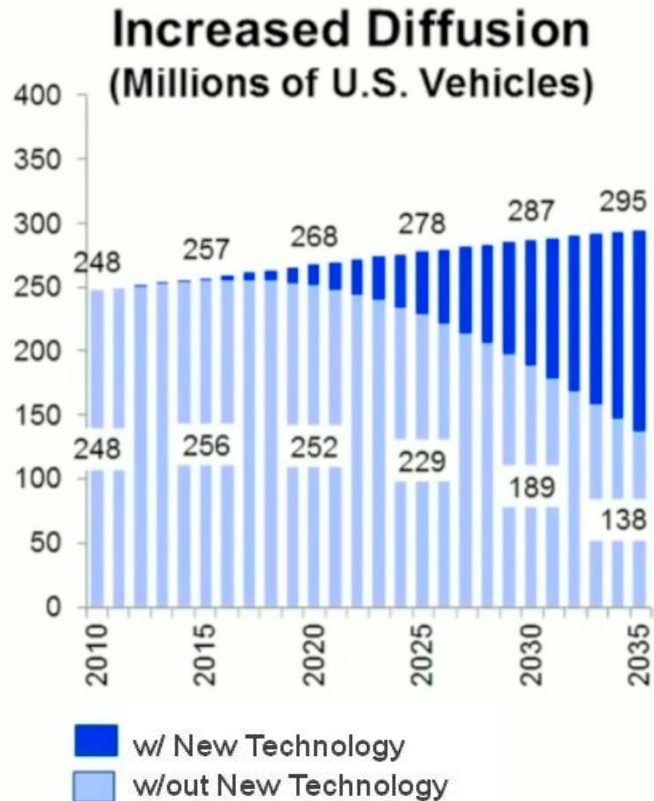
Represent > 99 percent of U.S. market



...but some of the predictions made for adoption and effectiveness of these features seem overly rosy.

Tom Gage at NHTSA Driver Behavior Meeting, 2016

By 2025 crashes are likely to be cut by over 50%



Realities on the ground often do not reflect these theoretical predictions

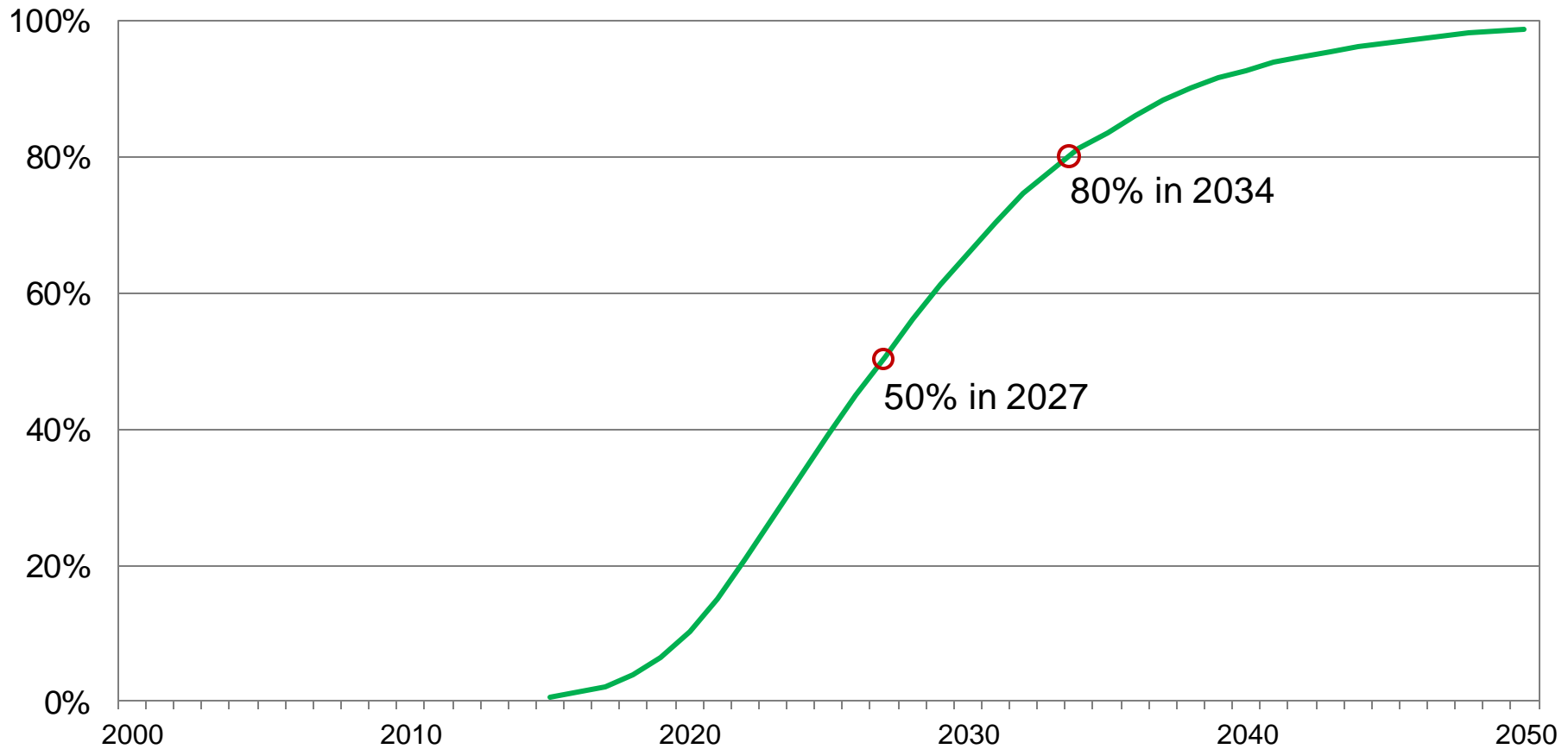
- ▶ Not all features are working as expected
 - Adaptive headlamps are reducing crashes but the largest effects are unexpectedly for crashes involving two or more vehicles
 - Lane departure warning is showing mixed effects for police-reported crashes and no effect for insurance claims
- ▶ Not all features are equally acceptable
 - Lane departure warning is found deactivated in 70 percent of Honda vehicles observed at dealer service centers
 - This has implications for more intrusive features associated with autonomous operation and V2X communications
- ▶ No features are 100 percent effective
 - Even front crash prevention systems are preventing less than half of the crashes for which they are relevant



**It will take decades to
see full benefits of the
effective features**

Predicted counts of registered vehicles equipped with front crash prevention

With 2022 voluntary commitment



The first vehicle with fully autonomous operation has not yet been sold –

and the first will likely operate only in the safest environs.

Summary

- ▶ IIHS sees the future of smart vehicles and highways as exciting, but progress will not be automatic
 - Not all smart features will be effective
 - Not all features will be acceptable, at least initially
 - Research is necessary to develop and promote those features that are effective
- ▶ It will take time for technology to penetrate the fleet, with vehicles in the near term continuing to look much like the vehicles sold today
- ▶ In the meantime, it is important that we not let visions of future mobility suck the air out of other safety conversations
 - We can save many lives if we increase belt and helmet use, reduce impaired driving, increase compliance with speed limits, and improve roadways for all road users
 - These are things we know how to do and can produce benefits while we await the car of the future



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More information and links
to our YouTube channel
and Twitter feed at [iihs.org](https://www.iihs.org)

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