2018 in review
AND FIRST LOOK 2019
WHO WE ARE

MISSION
The Insurance Institute for Highway Safety (IIHS) is an independent, nonprofit scientific and educational organization dedicated to reducing the losses — deaths, injuries and property damage — from motor vehicle crashes.

The Highway Loss Data Institute (HLDI) shares and supports this mission through scientific studies of insurance data representing the human and economic losses resulting from the ownership and operation of different types of vehicles and by publishing insurance loss results by vehicle make and model.

Our research seeks to identify effective countermeasures against crashes and the problems they cause. We recognize crash prevention will only go so far, so we also look for ways to mitigate crash consequences, as well as the best ways to recover from them. Our inquiry examines ways to modify human behavior and implement safer vehicle and road designs.
MEMBER COMPANIES

Our member companies share our vision of saving lives and reducing inju-
ries through scientific research that compels manufacturers, policymakers
and insurers to act to improve all aspects of motor vehicle transportation.

MEMBER GROUPS

AAA Carolinas
Acceptance Insurance
Alfa Insurance
Allstate Insurance
American Agricultural Insurance Company
American Family Insurance
American National
Amica Mutual Insurance Company
Auto Club Enterprises
Auto Club Group
Auto-Owners Insurance
BITCO Insurance Companies
California Casualty
Celina Insurance Group
Central States Health & Life Co. of Omaha and Affiliates
CHUBB
Colorado Farm Bureau Mutual Insurance Company
Commonwealth Casualty Company
Concord Group Insurance Companies
COUNTRY Financial
CSAA Insurance Group
Desjardins Insurance
ECM Insurance Group
Elephant Insurance Company
EMC Insurance Group
Erie Insurance Group
Esurance
Farm Bureau Financial Services
Farm Bureau Insurance Company of Michigan
Farm Bureau Insurance of Tennessee
Farm Bureau Mutual Insurance Company of Idaho
Farmers Insurance Group
Farmers Mutual of Nebraska
Florida Farm Bureau Insurance Companies
Frankenmuth Insurance
Gainso Insurance
GEICO Corporation
The General Insurance
Georgia Farm Bureau Mutual Insurance Company
Goodville Mutual Casualty Company
Grange Insurance
Grinnell Mutual
Hallmark Financial Services, Inc.
The Hanover Insurance Group
The Hartford
Haulers Insurance Company, Inc.
Horace Mann Insurance Companies
Imperial Fire & Casualty Insurance Company
Indiana Farm Bureau Insurance
Indiana Farmers Insurance
Infinity Property & Casualty
Kemper Corporation
Kentucky Farm Bureau Mutual Insurance Companies
Liberty Mutual Insurance
Louisiana Farm Bureau Mutual Insurance Company
The Main Street America Group
MAPFRE Insurance Group
Mercury Insurance Group
MetLife
Mississippi Farm Bureau Casualty Insurance Company
MG Insurance
Munich Reinsurance America, Inc.
Mutual Benefit Group®
Mutual of Enumclaw Insurance Company
Nationwide
NJM Insurance Group
Nodak Insurance Company
The Norfolk & Dedham Group®
North Carolina Farm Bureau Mutual Insurance Company
Northern Neck Insurance Company
NYCM Insurance
Ohio Mutual Insurance Group
Oregon Mutual Insurance Company
Pekin Insurance
PEMCO Insurance
Plymouth Rock Assurance
Progressive Insurance
PURE Insurance
Quintas Insurance Company
Redpoint County Mutual Insurance Company
The Responsive Auto Insurance Company
Rider Insurance
Rockingham Insurance
RSA Canada
Safe Auto Insurance Company
Safeco Insurance
Samsung Fire & Marine Insurance Company
SECURA Insurance
Selective Insurance Company of America
Sentry Insurance
Shelter Insurance®
Sompo International
South Carolina Farm Bureau Mutual Insurance Company®
Southern Farm Bureau Casualty Insurance Company
State Farm Insurance Companies
Stillwater Insurance Group
Swiss Reinsurance Company Ltd
Texas Farm Bureau Insurance
The Travelers Companies, Inc.
United Educators
USAA
Utica National Insurance Group
Virginia Farm Bureau Mutual Insurance
West Bend Mutual Insurance Company
Western National Insurance Group
Westfield

FUNDING ASSOCIATIONS

American Property Casualty Insurance Association
National Association of Mutual Insurance Companies

WE WELCOMED 6 NEW MEMBER COMPANIES IN 2018:

AND SO FAR IN 2019, WE HAVE WELCOMED:
PRESIDENT’S MESSAGE
David Harkey, president of IIHS and HLDI

It is often cited that human error is a contributing factor in more than 90 percent of traffic crashes in the U.S. That is not surprising, since the last time I checked humans are responsible for monitoring their surroundings and making decisions as drivers, pedestrians and bicyclists. Getting road users to make smarter, safer decisions continues to rank among the biggest challenges we face in highway safety. We know from prior success in increasing occupant restraint use that such change can be realized. In the early 1990s, IIHS partnered with the North Carolina Governor’s Highway Safety Program, North Carolina State Highway Patrol, University of North Carolina Highway Safety Research Center, local law enforcement agencies and other groups to develop and implement a high-visibility belt use enforcement and education campaign. The outcome was the now nationally adopted Click It or Ticket program, which has lifted front-seat occupant restraint usage to 90 percent and is credited for saving thousands of lives over the past two decades.

Two areas where changing driver behavior could substantially impact road safety are impaired driving and speeding. Alcohol impairment has been a contributing factor in the more than 10,000 lives lost each year in crashes for the past decade. Effective interventions such as ignition interlocks, which we showed in 2018 to reduce the number of impaired drivers in crashes, are being underutilized. At the same time, our recent research shows marijuana impairment is an emerging concern. In October, IIHS hosted the Combating Alcohol and Drug-Impaired Driving summit. The group included highway safety researchers, law enforcement and judiciary experts, advocates, safety program practitioners and policymakers. Work continues today on the action items identified through summit discussions.

Speeding has similar tragic outcomes as impairment, resulting in 10,000 lives lost annually. The continual rise in speed limits plus limits that don’t account for all road users or the surrounding environment, lack of manpower to effectively enforce them, adjudication challenges and increased vehicle horsepower all contribute to the problem. In 2018, we released a study showing how a small citywide reduction in speed limits can substantially lower the number of high-speed motorists on city streets. In April 2019, we will co-sponsor a forum on this topic with the Governors Highway Safety Association to challenge ourselves to address this crisis through policies, practices and interventions.

We also have seen a rise in the number of crash deaths among vulnerable road users. As we reported in the spring of 2018, we saw a 46 percent increase in pedestrian fatalities from 2009 to 2016. Pedestrian and bicyclist fatalities are at levels we have not seen in more than two
decades. To help combat this problem through vehicle technology, we have just introduced our pedestrian automatic emergency braking ratings program. Encouraging automakers to make this technology available on all vehicles will help to address the critical scenarios where pedestrians and vehicles often conflict. To help protect our bicycling consumers, we collaborated with Virginia Tech to introduce new bicycle helmet ratings.

Our TOP SAFETY PICK awards are a critical component of our consumer information program and a means to encourage automakers to improve vehicles and offer advanced safety features on all models. Over the years, IIHS has steadily raised the bar for the auto industry in terms of strengthening occupant protection when a crash occurs and improving technology to avoid a crash or mitigate the harm. This year will be no different, with an emphasis on rewarding those manufacturers who make collision avoidance systems and better headlights available as standard equipment on all vehicle trim levels.

This year also will be one of continued partnerships to effect change. IIHS-HLDI is taking a leadership role within the Road to Zero (RTZ) Coalition to help advance technology in vehicles and our infrastructure. We also will support the other tenants of the RTZ program, which include doubling down on proven interventions and adoption of a safe-systems approach to address our challenges in a more holistic way.

Finally, 2019 marks the 60th anniversary of the Institute’s founding. The unwavering investment of our member companies in our mission and the dedication of our talented staff enable us to strive toward zero fatalities on our roads. Thank you for your continued support! Together, we will reach a day when no individual loses their life in a crash.

IIHS BOARD OF DIRECTORS

2018
William L. Windsor Jr.
Chair
Associate Vice President, Office of Consumer Safety, Nationwide Insurance

Angela Sparks
Chair-Elect
Vice President and Actuary, State Farm Insurance Companies

Hank Nayden
Vice Chair
Vice President and General Counsel, GEICO Corporation

2019
Angela Sparks
Chair
Hank Nayden
Chair-Elect
Dan Clapp
Vice Chair
Executive Vice President, Shelter Insurance Companies

HLDI BOARD OF DIRECTORS

2018
Michael Petrarca
Chair
Senior Assistant Vice President, Amica Mutual Insurance Company

Anthony E. Ptasznik
Vice Chair
Vice President and ACIA Chief Actuarial Officer, The Auto Club Group

2019
Anthony E. Ptasznik
Chair
Vice President and ACIA Chief Actuarial Officer, The Auto Club Group

Andrew Woods
Vice Chair
Vice President, Personal Insurance — Research and Development, The Travelers Companies
PARTNERSHIPS

IIHS and HLDI not only partner with our member companies, we also work hand-in-hand with like-minded advocacy groups, consortiums, researchers and policymakers. Our partnerships take many forms. Some are data-sharing agreements, while others involve collaborative research and education efforts.

Advocacy
AAA
Advocates for Highway and Auto Safety
AnnaLeah and Mary for Truck Safety
Drive Smart Virginia
Euro NCAP
Foundation for Advancing Alcohol Responsibility
Global NCAP
Governors Highway Safety Association
Highway Safety Coalition
Lifesavers National Conference
MADD
National Organization of Youth Safety
National Safety Council
Road to Zero Coalition
Truck Safety Coalition
Vision Zero Network

Consortiums
International Center for Automotive Medicine Pedestrian Consortium
MIT AgeLab Advanced Vehicle Technology Consortium
RCAR

Government
American Association of Motor Vehicle Administrators
Federal Highway Administration
Federal Motor Carrier Safety Administration

Governments
Accountability Office
Highway Safety Partners Venture
National Highway Traffic Safety Administration
National Transportation Safety Board

Industry/other
CARFAX
Denver Health Medical Center
INRIX
Preusser Research Group
Transportation Research Board
Westat

Universities
Children’s Hospital at Dartmouth
Children’s Hospital of Philadelphia
The George Washington University
New York University School of Medicine
Oregon Health and Science University
UC Davis Medical Center
UNC Highway Safety Research Center
University of Florida College of Education
University of Michigan Transportation Research Institute
University of Virginia
Virginia Tech Transportation Institute

Crashworthiness can be compromised if crash partners aren’t compatible. Both vehicles’ energy-absorbing structures need to align. Although the incompatibility problem has vastly improved in recent years, protection still can be fine-tuned.
OUR RESEARCH & ANALYSIS

We are committed to conducting actionable research and analyses that help us move closer to the Vision Zero goal of no deaths or serious injuries from crashes on our roads. Our vehicle and human factors research is the bedrock of our ratings programs that inform consumers about vehicle crashworthiness, crash avoidance feature performance, large truck under-ride guard performance, LATCH child restraint hardware ease of use and booster seats’ ability to properly fit safety belts to young children.

CRASHWORTHINESS RATINGS

- 87 TOTAL CRASH TESTS AND 35 SLED TESTS
  - 3 moderate overlap front
  - 14 small overlap, driver
  - 24 small overlap, passenger
  - 9 side impact
  - 24 roof crush
  - 1 underride guard evaluation
  - 2 frontal research
  - 10 side research
  - 31 rear-impact sled
  - 4 contract sled

114 TOTAL VERIFICATION RATINGS

- 31 moderate overlap front
- 29 side
- 19 small overlap, driver
- 35 small overlap, passenger

BOOSTER RATINGS

- 25 new boosters
- 14 paid evaluations for manufacturers

LATCH RATINGS

- 33 ease-of-use evaluations
**RATINGS TIMELINE**

The first IIHS crashworthiness ratings program, the moderate overlap front crash test, turned 23 years old in 2018. Since that 1995 launch, we have added 5 more crashworthiness evaluations for ratings and 4 crash avoidance evaluations for ratings. We also rate booster seats and vehicle LATCH attachment hardware and recognize large truck underride guards that provide good rear underride protection. Our goal is to educate consumers and encourage manufacturers to make improvements to save lives and reduce injuries.

<table>
<thead>
<tr>
<th>Year</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>Moderate overlap front crash and head restraints</td>
</tr>
<tr>
<td>2003</td>
<td>Side impact crash</td>
</tr>
<tr>
<td>2004</td>
<td>Dynamic test to evaluate seat/ head restraints added to geometric evaluations</td>
</tr>
<tr>
<td>2008</td>
<td>Booster safety belt fit</td>
</tr>
<tr>
<td>2009</td>
<td>Roof strength</td>
</tr>
<tr>
<td>2012</td>
<td>Driver-side small overlap front crash</td>
</tr>
<tr>
<td>2013</td>
<td>Front crash prevention</td>
</tr>
<tr>
<td>2015</td>
<td>LATCH hardware ease of use</td>
</tr>
<tr>
<td>2016</td>
<td>Headlights</td>
</tr>
<tr>
<td>2017</td>
<td>Passenger-side small overlap front crash</td>
</tr>
<tr>
<td>2017</td>
<td>TOUGHGUARD award for underride prevention</td>
</tr>
<tr>
<td>2018</td>
<td>Rear crash prevention</td>
</tr>
<tr>
<td>2019</td>
<td>Pedestrian crash prevention</td>
</tr>
</tbody>
</table>
Our annual list of recommended used vehicles for teen drivers helps parents find safe vehicles to fit their family budget. Avoid sports cars, high-performance models and small cars. Think big and slow.
Ongoing research aims to identify the characteristics of automated driving assistance systems that help drivers be safer.

New rear crash prevention ratings assess system performance in typical backing crash scenarios.
In July, we hosted a “Crash Course in Vehicle Technology and Driverless Cars” with the Casualty Actuarial Society. The event drew 79 people from around the insurance industry.

In October, we hosted a webinar on advanced driver assistance systems with 159 registered participants representing member companies, automakers, advocates, government and other groups.

In August, we joined the Advanced Vehicle Technology Consortium, organized by the Massachusetts Institute of Technology AgeLab. The consortium was formed to fund the collection of naturalistic and field operation data about drivers’ use of the latest vehicle technologies. The data will help us answer questions about how technology will change driving and crash risk in the future.

When the sun sets at the Vehicle Research Center, headlight evaluations on our test track shift into gear. Our tests supported the rating of 164 different headlight systems in 2018.

CRASH AVOIDANCE RATINGS

Front crash prevention ratings
- 39 autobrake tests

Rear crash prevention ratings
- 8 autobrake tests

Pedestrian crash prevention ratings
- 11 tests
- 8 research

Headlight ratings
- 112 tests for 164 ratings
- 49 research tests for manufacturers

Other crash avoidance tests
- 16 rear cross-traffic alert
- 5 Level 2 on-road and track tests

Demos allow insurers to experience automatic emergency braking on our covered test track.
DISTRACTED DRIVING

Drivers who engage in behaviors secondary to driving, such as using a cellphone, eating, drinking or chatting with passengers, raise their risk of a crash. IIHS research shows the increased crash risk varies across secondary tasks, with the big problem being those that take drivers’ eyes off the road — like manipulating a cellphone.

Researchers observed drivers across Northern Virginia in March 2018. Drivers were 57 percent more likely to be observed manipulating a cellphone than drivers in a 2014 survey. The percentage of drivers observed manipulating a phone rose from 2.3 percent in 2014 to 3.4 percent in 2018.
GETTING DRIVERS TO SLOW DOWN IS IMPORTANT ON HIGHWAYS — AND CITY STREETS. A 5 MPH REDUCTION IN BOSTON’S DEFAULT SPEED LIMIT HAS REDUCED THE ODDS OF SPEEDING IN THE CITY, AN IIHS STUDY FOUND.

ENFORCEMENT

Together with AAA, Advocates for Highway and Auto Safety and the National Safety Council, we published new guidelines for automated enforcement programs that are intended to help these programs succeed at curbing red-light running and the crashes that result from it.
Alcohol is still the biggest threat when it comes to impaired driving.

Checkpoints, which have been upheld by the U.S. Supreme Court, don’t always result in a lot of arrests, but they are a good deterrent if they are visible and well-publicized.

The Combating Alcohol and Drug-Impaired Driving summit brought together highway safety and law enforcement experts in October 2018 to discuss the prevalence and associated risk of alcohol- and drug-impaired driving, as well as strategies to combat impaired driving.
States are embracing marijuana legalization, and studies by IIHS and HLDI indicate that crash rates have risen in states that have legalized retail sales for recreational use. Still, alcohol remains the bigger problem. Laws requiring all impaired-driving offenders to install alcohol interlocks (bottom right) reduce the number of impaired drivers in fatal crashes by 16 percent, IIHS research shows.

Photo courtesy Mothers Against Drunk Driving
HLDI compiles and maintains a unique database of loss data shared with us by member companies representing 85 percent of the market for private passenger vehicle insurance. These data describe losses for 480 million automobiles and 11.2 million motorcycles. HLDI also collects information about vehicle characteristics and the availability of various features. Together, these data help us better understand the vehicle’s role in crashes and help our members better serve their customers and communities.

Analysts assist supporting companies with customized queries, and they also conduct original research to help explain trends in crash frequency and cost and how changes in state laws, for example legalizing recreational marijuana use and allowing motorcyclists to ride without helmets, impact highway safety.

In 2018, HLDI decoded 8.7 million vehicle identification numbers, a 28 percent increase over the year earlier.

The high cost of claims associated with panoramic roofs is fueling a rise in glass-claim severities.

HLDI has helped the National Highway Traffic Safety Administration identify vehicles with possible fire-related defects that warrant recalls.
Aluminum alloy wheels are popular with thieves in many areas of the U.S. Honda Accords and Fits are frequent targets. Another trend HLID is studying is the effect of Michigan’s repeal of its motorcycle helmet law. Not surprisingly, motorcyclist crash injuries are up in the state.
In June, Virginia Tech released its first ratings of bicycle helmets, which were based on collaborative research with IIHS. We helped VTTI publicize the new ratings via video and print news releases and social media messaging.

Deaths among bicyclists and pedestrians have risen in recent years, and we are studying ways to improve protection for people on two wheels and on foot. New research in 2019 will look at injuries among people who ride e-scooters.
Protecting vulnerable road users is trickier than protecting people in cars. For one, people don’t come with airbags. Helmets reduce head injury risk for motorcyclists and bicyclists. Automatic emergency braking systems that can detect pedestrians and, in some cases, bicyclists are making roads safer, and our new ratings are encouraging their uptake.

IIHS is a member of the International Center for Automotive Medicine Pedestrian Consortium, which collects data on pedestrians and bicyclists struck by vehicles in Michigan. Researchers undertake in-depth crash reconstructions that combine police-reported data, medical information and computer simulations to determine impact scenarios and injury patterns for pedestrians and cyclists. These data will help vehicle safety researchers understand the pedestrian and cyclist challenges specifically for U.S. roads and promote vehicle designs that will be most effective at reducing pedestrian and cyclist crashes and injuries.
MEMBER RESOURCES

An extra benefit for IIHS-HLDI member companies is a password-protected website featuring a trove of in-depth analysis of insurance loss information, vehicle feature profiles, recall information and insurer advisories. Reports are searchable and include downloadable pdfs summarizing the main data points.

OUR COMMUNICATIONS & EDUCATION PROGRAMS

As nonprofit research groups, IIHS and HLDI don’t lobby legislators or policymakers to enact change to improve the safety of our roads. Instead, we reach decision makers through our communications and education programs and through collaborations with our insurer and highway safety partners.

Our multipronged approach takes many forms. We host webinars, sponsor special meetings and participate in working groups and research panels. We maintain public-facing and private members-only websites and sponsor a science education website. We work directly with journalists who cover our research, and we run engaging social media and traditional media programs.

WEBINARS

In 2018, we used a series of webinars as one way to directly connect with staff from our member companies and educate them about our work and trends in the highway safety field.

- HLDD hosted four webinars for Vehicle Information Power Users to enhance their use and understanding of HLDD data tools. The webinars were held in January, June, October and December, with 40–50 registered participants per event, representing 19–23 member companies.

- IIHS-HLDI hosted a webinar on advanced driver assistance systems in October, with 159 registered participants representing member companies, automakers, safety advocates and government organizations.

Webinars are a new way for us to connect with staff from our member companies. An October webinar took a deep dive into advanced driver assistance systems.
At the Vehicle Research Center, insurers get the chance to test drive vehicles with new and emerging advanced driver assistance features in special events held periodically throughout the year. Tours of our test labs and tracks give insurers a first-hand look at our research programs, with plenty of opportunities to hear from our in-house experts about ongoing research and trends.
A new education-focused website helps us directly reach high school science teachers and students. In June 2018, we launched IIHS-HLDI in the Classroom (classroom.iihs.org) with the University of Florida College of Education's Department of E-Learning, Technology and Communications Services.

IIHS-HLDI in the Classroom is a free, online resource featuring hands-on science activities designed by science educator Griff Jones, Ph.D., a recipient of the Presidential Award for Excellence in Science Teaching. The activities, which align with Next Generation Science Standards, focus on topics such as inertia, momentum, impulse and energy.

IIHS-HLDI in the Classroom expands on the topics explored in the Institute’s two popular science education films, “Understanding Car Crashes: It’s Basic Physics” and “Understanding Car Crashes: When Physics Meets Biology.”

The website aims to reinforce important physics and biology concepts while providing students the knowledge to make safe decisions while riding in or driving a vehicle.
VRC GUESTS SEE RESEARCH IN ACTION

Our Vehicle Research Center staff welcomed nearly 4,000 visitors from member companies, manufacturers, researchers, policymakers, law enforcement officials and emergency responders. In 2018, we prioritized visits from member companies and groups directly related to our mission, resulting in a decline in foot traffic through our labs and meeting facilities. In April 2019, we will host a national forum on speed with the Governors Highway Safety Association.

VRC VISITORS

- 3,970 OVERALL VISITORS, INCLUDING:
  - 1,337 from member companies
  - 140 groups

Sharing our work with member companies and other groups related to our mission is a key part of our communications and education programs.
ADVERTISING & EARNED MEDIA

Ad mentions dipped slightly compared with 2017 as automakers scaled back on TV and print advertising and direct marketing. Social media ad approvals rose 27 percent, though, and there was strong growth in the Canadian market, with ad approvals up 21 percent over 2017.

TOP SAFETY PICK+ and TOP SAFETY PICK awards recognize new vehicles that deliver all-around crash protection and offer crash avoidance features.

ADVERTISING

- 737 ads approved to use TOP SAFETY PICK+ and/or TOP SAFETY PICK award claims
- 133 Canadian market
- 127 online
- 98 direct marketing campaigns
- 94 social media
- 90 print
- 55 digital banners
- 45 auto show displays
- 35 TV
- 33 press releases
- 20 radio
- 7 Monroney labels

EARNED MEDIA

Our staff experts gave 746 interviews with television, print, online and radio media, compared with 734 in 2017. Pedestrian safety, marijuana and driving, and autonomous vehicles were the most popular interview topics in 2018.

- 500 print and online
- 91 radio
- 4 TV on-air use of IIHS-HLDI data
- 92 TV interviews for information
- 59 TV on-air interviews
VIDEO NEWS RELEASES

Dwindling newsroom budgets and a highly competitive news cycle mean major broadcast networks have fewer resources to cover our field. To help, we make it easy for journalists to report on our research and ratings, providing them with broadcast-quality digital video and still images, on-camera interviews with research staff and top-notch print and digital content. In 2018, we issued 9 video news releases.

**Audience viewership**
- 336 million viewers of 8,760 broadcasts vs. 354 million total viewers of 9,447 broadcasts in 2017

**Average audience per release**
- 37.3 million viewers of 973 broadcasts vs. 44 million viewers of 1,180 broadcasts in 2016

**PUBLICATIONS & PRESENTATIONS**

We continue to have a strong publications roster, sharing our work with the public via news releases, our *Status Report* newsletter, consumer brochures, advisories and an annual report.

- 49 news releases
- 9 *Status Report* newsletter issues
- 8 brochures, including 3 in Spanish
- 2 insurer advisories on the safety of aftermarket parts and ADAS camera calibrations
- More than 150 presentations to national and international conferences and member companies

**BEST BET BOOSTER RATINGS**
- 2 web ads
- 3 package layouts with logo

**TOUGHGUARD**
- 1 Vanguard

**TEEN VEHICLE CHOICE**
- 3 automakers touted recognition in press releases, 1 social media post and 1 e-newsletter

**OTHER ADS**
- 10 miscellaneous ads, creatives or press releases approved for use of IIHS ratings, research or HLDI analysis.
SOCIAL MEDIA

Our social media channels help us connect and engage with safety-minded consumers and partners. In 2018, we doubled the number of followers on our Facebook page, which is only a year old. One of the most popular posts featured a video of a side underride crash with a tractor-trailer, which was viewed 64,000 times. All of our crash test videos, plus the Inside IIHS and HLDI videos, are available on our YouTube channel. We added more than 24,000 subscribers in 2018 and racked up nearly 63,000 shares. Instagram gives consumers a behind-the-scenes look at the day-to-day happenings at the Vehicle Research Center, and Twitter helps spark interest in our upcoming news releases and is a great way to amplify the messages of our member companies and safety partners.

FACEBOOK

- 5,000+ followers
- 2x the number than at the start of 2018

INSTAGRAM

- 1,540 followers added in 2018
- 2,036+ total followers since October 2017 launch
- 222,000 unique views

TWITTER

- 16,400 followers
- +21% from 2017

YOUTUBE

Lifetime through 2018
- 247,882 subscribers
- 176 million views
- 137 million watch time minutes

2018 alone
- 24,132 new subscribers
- 18 million views
- 15 million watch time minutes
- 62,763 shares
- 135.3 million impressions (defined as the number of times our video thumbnails were shown to viewers on YouTube)
WEBSITE | IIHS.ORG

Our website, launched in 1995, continues to draw sizeable traffic. In 2019 we are undertaking a major revamp, creating a responsive website that will deliver focused content and better reinforce our messages across media platforms.

6.7 million sessions for the year

27.1 million unique page views, up 12% over 2017

84% of pages viewed were in the ratings section of the website, up 3% from 2017. This includes vehicle ratings, TOP SAFETY PICK winner lists, booster ratings, LATCH information and vehicle recommendations for teens.

TOP NEWS

Of the 49 total news releases in 2018, these garnered the most attention online.

<table>
<thead>
<tr>
<th>News Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>New passenger-side ratings for 7 small SUVs</td>
<td>APRIL 4</td>
</tr>
<tr>
<td>57 models earn IIHS awards for 2019</td>
<td>DEC. 19</td>
</tr>
<tr>
<td>Passenger-side tests of midsize SUVs reveal flaws</td>
<td>JUNE 12</td>
</tr>
<tr>
<td>Bike helmet ratings reveal differences in protection</td>
<td>JUNE 26</td>
</tr>
<tr>
<td>Subaru Ascent earns TOP SAFETY PICK+ award</td>
<td>SEPT. 18</td>
</tr>
<tr>
<td>Tests uncover issues for advanced features</td>
<td>AUG. 7</td>
</tr>
<tr>
<td>Headlights improve, but base models lag</td>
<td>NOV. 29</td>
</tr>
<tr>
<td>Mixed results for minivans in new test</td>
<td>AUG. 16</td>
</tr>
<tr>
<td>Updated teen vehicle recommendations</td>
<td>NOV. 1</td>
</tr>
<tr>
<td>New ratings target backing crashes</td>
<td>FEB. 22</td>
</tr>
</tbody>
</table>

CRASH TEST PREP

Days of work go on behind the scenes to prepare for a crash test that takes just seconds to complete. Our engineers and technicians follow rigorous protocols to ensure the validity and repeatability of each test. To see the vehicle prep team in action, go to YouTube.com/IIHS.
Impairment and crash avoidance/automation were two key topic areas researchers tackled in 2018.

BIBLIOGRAPHY & REPORTS

IIHS RESEARCH PAPERS

Alcohol and drugs
Marijuana use and driving in Washington state: opinions and behaviors before and after implementation of retail sales. Eichelberger, Angela H. Insurance Institute for Highway Safety | March 2018

State alcohol ignition interlock laws and fatal crashes. Teoh, Eric R.; Fell, James C.; Scherer, Michael; Wolfe, Danielle E.R. Insurance Institute for Highway Safety | March 2018

Effect of recreational marijuana sales on police-reported crashes in Colorado, Oregon, and Washington. Monfort, Samuel S. Insurance Institute for Highway Safety | October 2018


Marijuana use and driving in Washington state: opinions and behaviors before and after implementation of retail sales. Eichelberger, Angela H. Traffic Injury Prevention | March 2019

Automation and crash avoidance
System attributes that influence reported improvement in drivers’ experiences with adaptive cruise control and active lane keeping after daily use in five production vehicles. Kidd, David G.; Reagan, Ian J. Insurance Institute for Highway Safety | February 2018

Attributes of crash prevention systems that encourage drivers to leave them turned on. Kidd, David G.; Reagan, Ian J. Proceedings of the 9th International Conference on Applied Human Factors and Ergonomics | July 2018

Exploring relationships between observed activation rates and functional attributes of lane departure prevention. Reagan, Ian J.; Cicchino, Jessica B.; Montalbano, Carl J. Insurance Institute for Highway Safety | July 2018

Effects of an aftermarket crash avoidance system on warning rates and driver acceptance in urban and rural environments. Reagan, Ian J. Proceedings of the 9th International Conference on Applied Human Factors and Ergonomics | July 2018


Characteristics of rear-end crashes involving passenger vehicles with automatic emergency braking. Cicchino, Jessica B.; Zuby, David S. Insurance Institute for Highway Safety | November 2018

Real-world effects of rear automatic braking and other backing assistance systems. Cicchino, Jessica B. Journal of Safety Research | February 2019

Real-world effects of rear cross-traffic alert on police-reported backing crashes. Cicchino, Jessica B. Accident Analysis & Prevention | February 2019
Measuring adult drivers’ use of level 1 and 2 driving automation by roadway functional class. Reagan, Ian J.; Hu, Wen; Cicchino, Jessica B.; Seppelt, Bobbie; Fridman, Lex; Glazer, Michael. Insurance Institute for Highway Safety | March 2019

Effect of Subaru EyeSight on pedestrian-related bodily injury liability claim frequencies. Wakeman, Kay; Moore, Matthew J.; Zuby, David S.; Hellinga, Laurie A. Insurance Institute for Highway Safety | March 2019

Bicyclists
Differences in the protective capabilities of bicycle helmets in real-world and standard-specified impact scenarios. Bland, Megan L.; Zuby, David S.; Mueller, Becky C.; Rowson, Steven. Traffic Injury Prevention | March 2018

Differences in impact performance of bicycle helmets during oblique impacts. Bland, Megan L.; McNally, C.; Rowson, Steven. Journal of Biomechanical Engineering | May 2018

Child safety
Assessing tether anchor labeling and usability in pickup trucks. Klinich, Kathleen D.; Manary, Miriam A.; Malik, Laura A.; Flannagan, Carol A.C.; Jermakian, Jessica S. Traffic Injury Prevention | March 2018

Crash testing and crashworthiness
IIHS side impact parametric study using LS-DYNA. Reichert, R; Kan, S; Arnold-Keifer, S; Mueller, Becky C. Proceedings of the 15th International LS-DYNA Users Conference | June 2018


Next steps for the IIHS side crashworthiness evaluation program. Arbelaez, Raul A.; Mueller, Becky C.; Brumbelow, Matthew L.; Teoh, Eric R. Short Communications from the 62nd Stapp Car Crash Conference | November 2018

Comparison of higher severity side impact tests of IIHS-good-rated vehicles struck by LTVs and a modified IIHS barrier with the current IIHS side test and real-world crashes. Mueller, Becky C.; Arbelaez, Raul A.; Brumbelow, Matthew L.; Nolan, Joseph M. Insurance Institute for Highway Safety | March 2019

Distracted driving
Do Not Disturb While Driving – use of cellphone blockers among adult drivers. Reagan, Ian J.; Cicchino, Jessica B. Insurance Institute for Highway Safety | December 2018


Motorcycles

Pedestrians

Roundabouts
Long-term crash trends at single- and double-lane roundabouts in Washington State. Hu, Wen; Cicchino, Jessica B. Insurance Institute for Highway Safety | December 2018

Safety belts
Consumer acceptance of enhanced seat belt reminders, a gearshift interlock, or different speed-limiting interlocks to encourage seat belt use following a brief hands-on experience. Kidd, David G.; Singer, Jeremiah P. Insurance Institute for Highway Safety | October 2018

Factors contributing to serious and fatal injuries in belted rear-seat occupants in frontal crashes. Jermakian, Jessica S.; Edwards, Marcy A.; Fein, Seth; Maltese, Matthew R. Insurance Institute for Highway Safety | November 2018

Speed
Lowering the speed limit from 30 to 25 mph in Boston: effects on vehicle speeds. Hu, Wen; Cicchino, Jessica B. Injury Prevention | January 2019

Teenagers
Parent awareness and use of Ford’s MyKey system. Weast, Rebecca A. Insurance Institute for Highway Safety | August 2018
<table>
<thead>
<tr>
<th>HLDI REPORTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Advisories</strong></td>
</tr>
<tr>
<td>OEM vs. aftermarket parts and Honda Fit crash tests No., 42</td>
</tr>
<tr>
<td>Windshields – Aftermarket vs. OEM replacement and ADAS camera calibrations No., 43</td>
</tr>
<tr>
<td>2017–18 Noncrash Fire-Related Recalls, CA-18a</td>
</tr>
<tr>
<td>2017–18 Noncrash Fire-Related Recalls, CA-18b</td>
</tr>
<tr>
<td>2017–18 Noncrash Fire-Related Recalls, CA-18c</td>
</tr>
<tr>
<td><strong>Loss fact sheets</strong></td>
</tr>
<tr>
<td>Bodily injury liability coverage comparison of losses by vehicle class and size/weight group, 2015–17 models, BF-18</td>
</tr>
<tr>
<td>Collision coverage comparison of losses by vehicle class and size/weight group, 2015–17 models, RF-18</td>
</tr>
<tr>
<td>Comprehensive coverage comparison of losses by vehicle class and size/weight group, 2015–17 models, CF-18</td>
</tr>
<tr>
<td>Distribution of collision claims by claim size, 2017 calendar year, CS-18</td>
</tr>
<tr>
<td>Historical loss trends by coverage, TF-18</td>
</tr>
<tr>
<td>Medical payment coverage comparison of losses by vehicle class and size/weight group, 2015–17 models, MF-18</td>
</tr>
<tr>
<td>Motorcycle collision coverage comparison of losses by motorcycle class, 2013–17 models, MCF-18</td>
</tr>
<tr>
<td>Personal injury protection coverage comparison of losses by vehicle class and size/weight group, 2015–17 models, IF-18</td>
</tr>
<tr>
<td>Property damage liability coverage comparison of losses by vehicle class and size/weight group, 2015–17 models, PF-18</td>
</tr>
<tr>
<td><strong>Misc.</strong></td>
</tr>
<tr>
<td>Data overview</td>
</tr>
<tr>
<td>HLDI loss data computation methods</td>
</tr>
<tr>
<td>HLDI motorcycle loss data overview</td>
</tr>
<tr>
<td>HLDI vehicle information FTP site information</td>
</tr>
<tr>
<td>HLDI VIN pattern reference tables</td>
</tr>
<tr>
<td><strong>Special topics</strong></td>
</tr>
<tr>
<td>Motorcycle collision losses for off-road classes, 2013–17 models, Vol. 35, No. 1</td>
</tr>
<tr>
<td>2013–17 Subaru collision avoidance features, Vol. 35, No. 2</td>
</tr>
<tr>
<td>Losses due to animal strikes, Vol. 35, No. 3</td>
</tr>
<tr>
<td>California Noncrash Fire Losses in 2017, Vol. 35, No. 4</td>
</tr>
<tr>
<td>Electric vehicle theft losses, Vol. 35, No. 5</td>
</tr>
<tr>
<td>2011–17 Honda Odyssey collision avoidance features, Vol. 35, No. 6</td>
</tr>
<tr>
<td>Volvo collision avoidance features: 2007–10 model years, Vol. 35, No. 7</td>
</tr>
<tr>
<td>Recreational marijuana and collision claim frequencies, Vol. 35, No. 8</td>
</tr>
<tr>
<td>2016–17 Honda collision avoidance features, Vol. 35, No. 9</td>
</tr>
<tr>
<td>Weather losses in 2017, Vol. 35, No. 10</td>
</tr>
<tr>
<td>Effect of hybrid vehicles on pedestrian-related bodily injury liability claim frequencies, Vol. 35, No. 11</td>
</tr>
<tr>
<td>Effect of windshield costs and repair rates on glass claim severities, Vol. 35, No. 13</td>
</tr>
<tr>
<td>Honda Pilot rearview camera — 2006–08 model years, Vol. 35, No. 14</td>
</tr>
<tr>
<td>Collision, PDL, and BI losses of hybrid vehicles and their conventional counterparts while adjusting for mileage, Vol. 35, No. 15</td>
</tr>
<tr>
<td>Point-of-impact distribution, Vol. 35, No. 16</td>
</tr>
<tr>
<td>Distribution of collision claims by claim size, 2017 calendar year, Vol. 35, No. 17</td>
</tr>
<tr>
<td>Distribution of PDL claims by claim size, 2017 calendar year, Vol. 35, No. 18</td>
</tr>
<tr>
<td>Deductibles under collision coverage, Vol. 35, No. 19</td>
</tr>
<tr>
<td>Motorcycle collision losses for off-road classes by displacement range, 2013–17 model years, Vol. 35, No. 21</td>
</tr>
<tr>
<td>IIHS crashworthiness evaluation programs and the U.S. vehicle fleet — a 2018 update, Vol. 35, No. 22</td>
</tr>
<tr>
<td>Standard reports</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Bodily injury liability: 2015–17 passenger cars, pickups, SUVs and vans, B-17</td>
</tr>
<tr>
<td>Collision: 2016–18 passenger cars, pickups, SUVs and vans, R-18</td>
</tr>
<tr>
<td>Collision losses controlling for mileage: 2015–17 passenger cars, pickups, SUVs and vans, RM-17</td>
</tr>
<tr>
<td>Collision: 2014–18 motorcycles, MR-18</td>
</tr>
<tr>
<td>Comprehensive: 2013–17 motorcycles, MC-17</td>
</tr>
<tr>
<td>Comprehensive: 2015–17 passenger cars, pickups, SUVs and vans, C-17</td>
</tr>
<tr>
<td>Glass losses: 2015–17 passenger cars, pickups, SUVs and vans, G-17</td>
</tr>
<tr>
<td>Liability and first party medical: 2013–17 motorcycles, ML-17</td>
</tr>
<tr>
<td>Medical payment: 2015–17 passenger cars, pickups, SUVs and vans, M-17</td>
</tr>
<tr>
<td>Personal injury protection: 2015–17 passenger cars, pickups, SUVs and vans, I-17</td>
</tr>
<tr>
<td>Property damage liability: 2016–18 passenger cars, pickups, SUVs and vans, P-18</td>
</tr>
<tr>
<td>Property damage liability losses controlling for mileage: 2015–17 passenger cars, pickups, SUVs and vans, PM-17</td>
</tr>
<tr>
<td>Theft: 2015–17 passenger cars, pickups, SUVs and vans, T-17</td>
</tr>
<tr>
<td>Whole vehicle theft losses 2015–17 passenger cars, pickups, SUVs and vans, WT-17</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Vehicle descriptions</td>
</tr>
<tr>
<td>2018 Motorcycle models, MD-17</td>
</tr>
<tr>
<td>HLDI facts and figures, 1981–2019 vehicle fleet, VIF-18</td>
</tr>
</tbody>
</table>