



NEWS RELEASE

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Redesigned Subaru Forester aces tough new crash test; only 2 of 13 small SUVs tested earn *TOP SAFETY PICK+*

ARLINGTON, Va. — The 2014 Subaru Forester is the first vehicle to ace every aspect of the challenging small overlap front crash test conducted by the Insurance Institute for Highway Safety (IIHS). The Forester, the only one of 13 small SUVs to earn an overall rating of good in the test, and the 2013 Mitsubishi Outlander Sport, which earns acceptable, are the latest vehicles to qualify for the Institute's recently inaugurated top honor, *TOP SAFETY PICK+*. Each of the other 11 SUVs earns either a poor or marginal rating.

"With the redesigned Forester, Subaru's engineers set out to do well in our new test, and they succeeded," says Joe Nolan, the Institute's vice president for vehicle research. "This is exactly how we hoped manufacturers would respond to improve protection for people in these kinds of serious frontal crashes."

This is not the first time that the Forester has stood out in a new IIHS crash test. When the Institute first rated small SUVs for side protection in 2003, the Subaru model performed the best and was one of only two to earn good ratings.

IIHS added the small overlap test to its lineup of vehicle safety evaluations last year. It replicates what happens when the front corner of a vehicle strikes another vehicle or an object like a tree or a utility pole. In the test, 25 percent of a vehicle's front end on the driver side strikes a 5-foot-tall rigid barrier at 40 mph. A 50th percentile male Hybrid III dummy is belted in the driver seat.

Most vehicles today are designed to do well in the government's full-width front crash test and in the Institute's moderate overlap front test, but that is no guarantee of good performance in a small overlap crash. In a 2009 IIHS study of vehicles with good ratings for frontal crash protection, small overlap crashes accounted for nearly a quarter of the frontal crashes involving serious or fatal injury to front seat occupants. In many vehicles the impact at a 25 percent overlap misses the primary structures designed to manage crash energy. That increases the risk of severe damage to or collapse of the occupant compartment structure. Also, vehicles tend to rotate and slide sideways during this type of collision, and that can move the driver's head outboard, away from the protection of the frontal airbag.

Those difficulties were apparent in the small SUV group. Two-thirds of the vehicles had poor ratings for structure, and about half of them were poor or marginal for restraints and kinematics, meaning the dummy's movements weren't well-controlled to prevent contact with hard surfaces.

In one example of poor structure, the front pillar of the Nissan Rogue's door frame was pushed far inside the occupant compartment and after the crash was almost touching the driver seat. The Jeep Patriot was among the worst for restraints and kinematics. The dummy's head slid off the frontal airbag as the steering wheel moved 8 inches up and nearly 6 inches to the right. The side curtain airbag didn't deploy, and the safety belt allowed the dummy's head and torso to move too far forward.

In contrast, the Forester had good ratings for structure, restraints and kinematics, and all four injury measures on the dummy. The airbags worked as intended, and the space around the dummy was well-maintained. The Outlander Sport was acceptable for structure and restraints and kinematics and also had good injury measures.



The structure of the 2014 Subaru Forester, left, held up well in the small overlap front test. The 2012 Nissan Rogue's poor structural performance was more typical of the small SUVs tested.

The Forester and the Outlander Sport bring the number of *TOP SAFETY PICK+* winners to 20. The award is based on performance in the small overlap front test, as well as in the moderate overlap front, side, rollover and rear tests. To qualify, a vehicle must earn good ratings in 4 of the 5 tests and no less than acceptable in the fifth.

IIHS continues to award *TOP SAFETY PICK* (without the "plus") to vehicles with good ratings in the moderate overlap front, side, rollover and rear tests, regardless of their small overlap ratings. Of the small SUV test group, nine earn *TOP SAFETY PICK*, including the BMW X1 and the Buick Encore, which are new to the U.S. market for 2013. The others are the Ford Escape, the Honda CR-V, the Hyundai Tucson and its twin, the Kia Sportage, the Mazda CX-5, the Volkswagen Tiguan and the 2014 Patriot. The 2013 Patriot also qualifies for *TOP SAFETY PICK* when equipped with optional side torso airbags. Another small SUV, the 2013 Toyota RAV4, earns *TOP SAFETY PICK*, but it won't be put through the small overlap test until later this year. Toyota asked for the delay so it could make changes to the RAV4 to improve performance in the test.

The test group also includes the Rogue and the Jeep Wrangler 2-door. Aside from the Forester, all small SUVs tested are 2013 or 2012 models. The small overlap ratings of the 2012 vehicles carry over to 2013 models because no significant design changes were made.

Small SUV ratings in small overlap frontal crash test

	Dummy Injury Measures						
	Overall	Structure	Restraints & Kinematics	Head & neck	Chest	Hip & thigh	Lower leg & foot
2014 Subaru Forester	G	G	G	G	G	G	G
Mitsubishi Outlander Sport	A	A	A	G	G	G	G
BMW X1	M	P	G	G	G	G	P
Nissan Rogue	M	P	A	G	G	G	M
Mazda CX-5	M	P	M	G	G	G	A
Honda CR-V	M	P	M	G	G	G	M
Jeep Wrangler 2-door	M	A	A	G	G	P	P
Volkswagen Tiguan	M	M	A	G	G	P	G
Hyundai Tucson	P	P	P	G	G	G	M
Kia Sportage	P	P	P	G	G	G	M
Buick Encore	P	P	P	G	G	A	P
Jeep Patriot	P	P	P	G	G	A	P
Ford Escape	P	P	M	G	G	P	A

G Good
 A Acceptable
 M Marginal
 P Poor

For more information, go to www.iihs.org

The Insurance Institute for Highway Safety is an independent, nonprofit scientific and educational organization dedicated to reducing the losses — deaths, injuries and property damage — from crashes on the nation's roads. The Institute is wholly supported by auto insurers.