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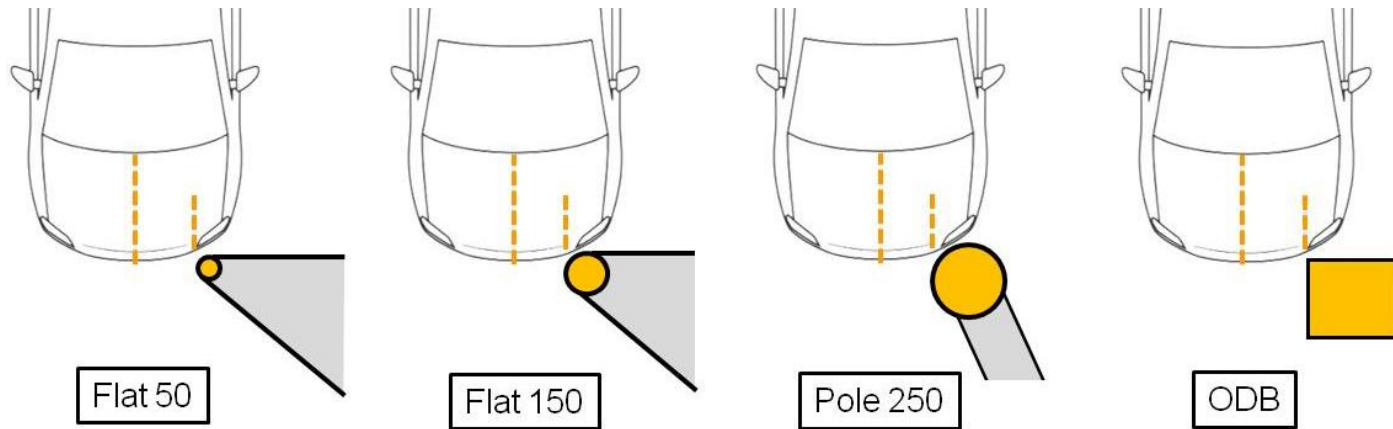
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An Update on the IIHS Small Overlap Ratings Program

2013 Government/Industry Meeting
Washington, DC • January 30, 2013

Chris Sherwood, Senior Research Engineer

Small overlap research program



Small overlap crashworthiness evaluation test



- Rigid barrier, flat face, 150mm corner radius
- 25% overlap
- 64 km/h test speed
- Hybrid III midsize male driver
- Overall rating
 - Vehicle structure
 - Driver restraints and kinematics
 - Injury measures

Rating programs for 2 vehicle classes



midsize luxury



midsize moderately priced

Midsize luxury/near luxury small overlap ratings

	Overall	Structure	Restraints & Kinematics	Dummy Injury Measures			
				Head & neck	Chest	Hip & thigh	Lower leg & foot
Acura TL	G	A	G	G	G	G	G
Volvo S60	G	G	A	G	G	G	G
Infiniti G	A	M	G	G	G	G	G
Acura TSX sedan/Sport Wagon	M	M	M	G	G	G	P
BMW 3 series	M	M	M	G	G	G	P
Lincoln MKZ	M	P	M	G	G	G	A
Volkswagen CC	M	M	P	G	G	A	G
Mercedes C-Class	P	P	M	G	G	G	P
Lexus IS 250/350	P	P	P	G	G	G	P
Audi A4	P	P	P	G	G	P	G
Lexus ES 350	P	P	P	G	G	M	P

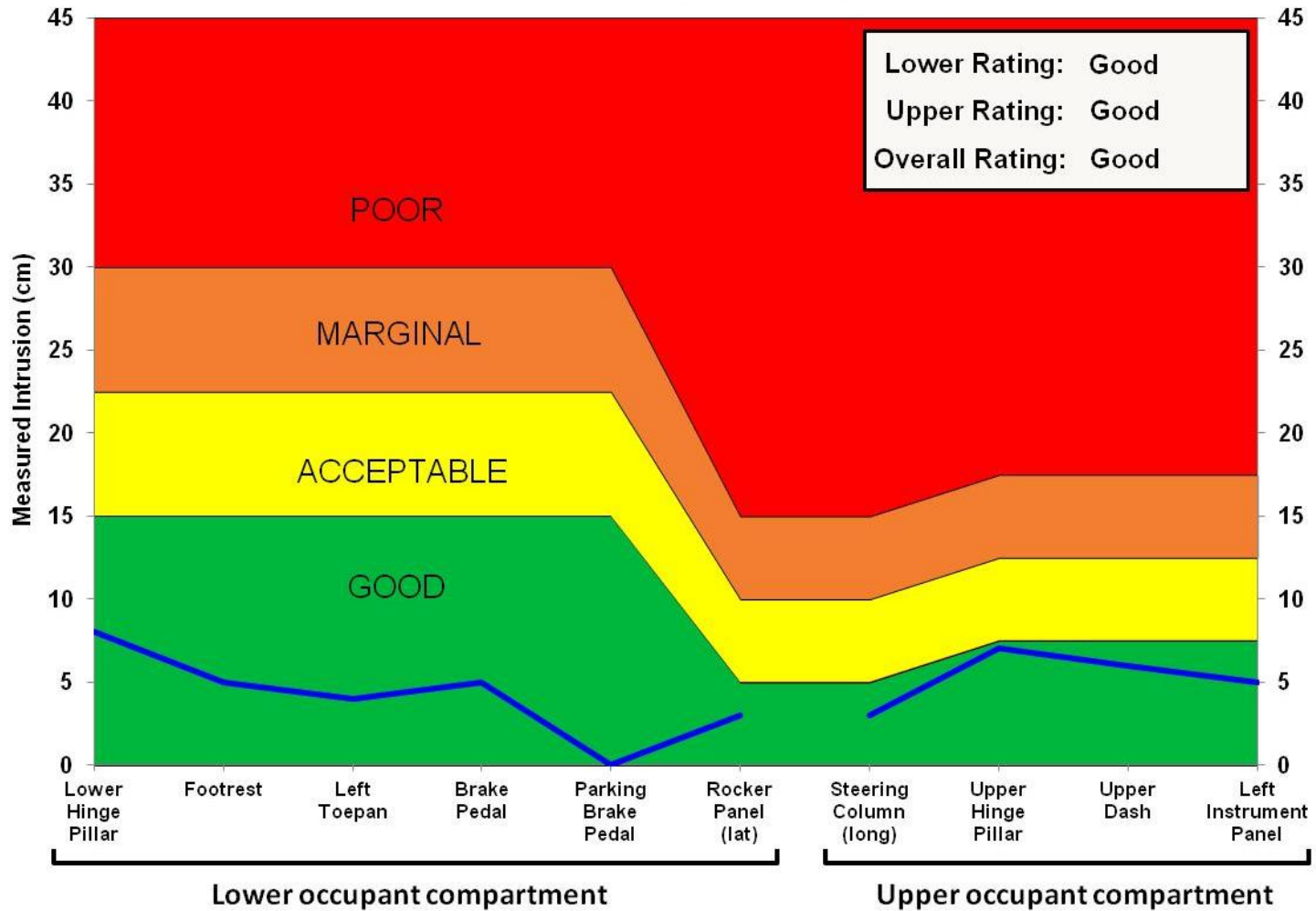
good **G** acceptable **A** marginal **M** poor **P**

Midsize moderately priced cars small overlap ratings

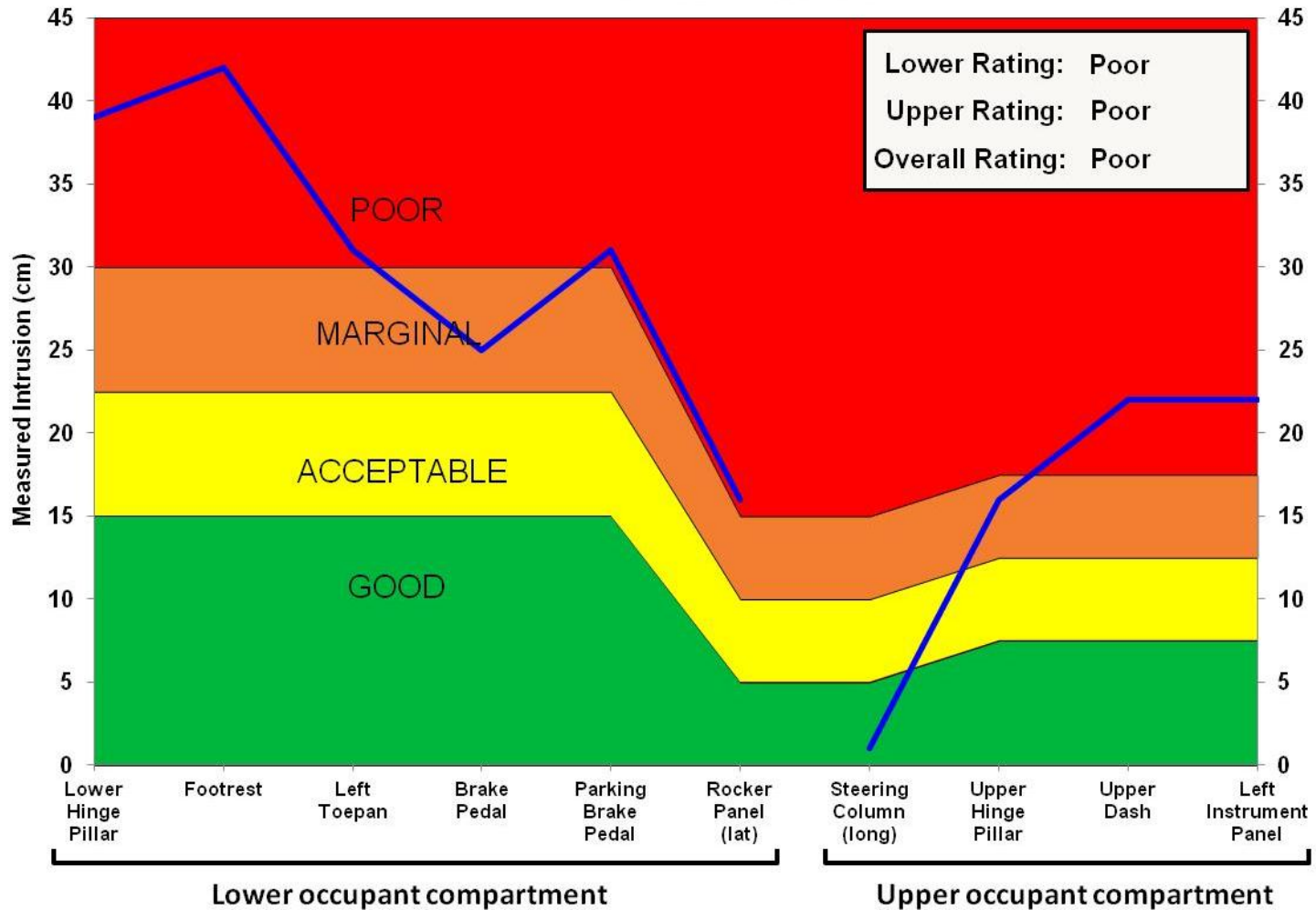
	Overall	Structure	Restraints & kinematics	Dummy injury measures			
				Head & neck	Chest	Hip & thigh	Lower leg & foot
Honda Accord 4-door	G	A	G	G	G	G	G
Suzuki Kizashi	G	G	A	G	G	G	G
Ford Fusion	A	A	A	G	G	G	G
Honda Accord 2-door	A	A	A	G	G	G	G
Kia Optima	A	M	G	G	G	G	G
Nissan Altima 4-door	A	A	G	G	G	G	P
Nissan Maxima	A	M	G	G	G	G	G
Subaru Legacy	A	M	G	G	G	G	G
Subaru Outback	A	M	G	G	G	G	G
Dodge Avenger	A	A	M	G	G	G	G
Chrysler 200 4-door	A	A	M	G	G	G	G
Mazda 6	A	A	M	G	G	G	G
Volkswagen Passat	A	A	M	G	G	G	G
Hyundai Sonata	M	M	A	G	G	G	M
Chevrolet Malibu	M	M	M	G	G	G	M
Volkswagen Jetta sedan	M	M	M	G	G	G	P
Toyota Camry	P	P	P	G	G	G	A
Toyota Prius v	P	P	P	G	G	P	P

good **G** acceptable **A** marginal **M** poor **P**

Good structure



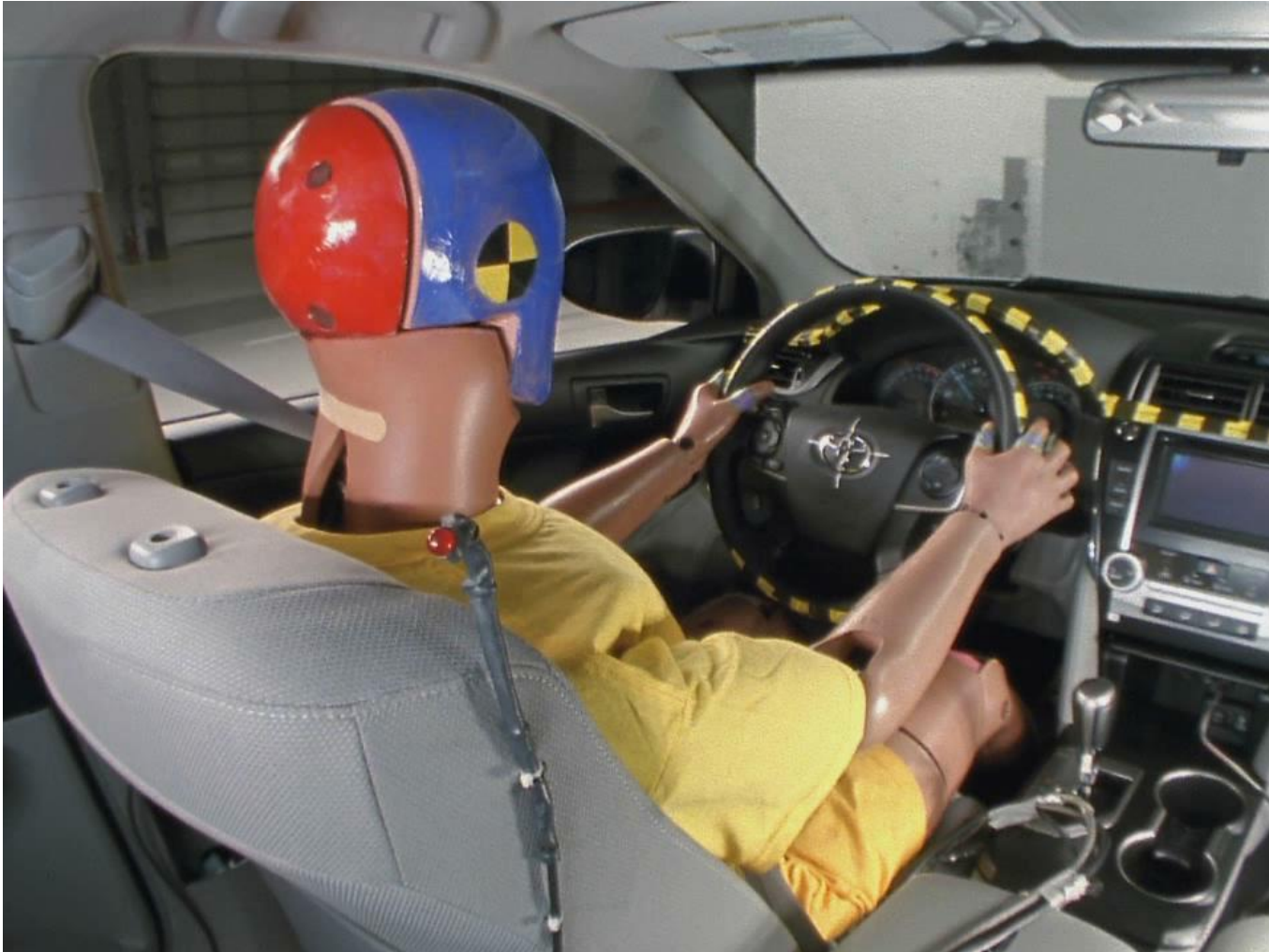
Poor structure



Good restraints and kinematics



Poor restraints and kinematics



2013 *TOP SAFETY PICK* Plus winners, January 2013

Good or Acceptable performance in small overlap test

- Acura TL
- Chrysler 200 4-door
- Dodge Avenger
- Ford Fusion
- Honda Accord 2-door
- Honda Accord 4-door
- Kia Optima
- Nissan Altima 4-door
- Subaru Legacy
- Subaru Outback
- Suzuki Kizashi
- Volkswagen Passat
- Volvo S60



Small overlap performance becomes a required criteria for
TOP SAFETY PICK 2014-15

At Good or Acceptable level

Current protocol and rating guidelines

Changes since initial release

- No demerit for non-deployment of side thorax bag
- Seatbelt spool out replaced with direct measure of occupant excursion
 - No demerit for excursion if stable airbag interaction and stable steering wheel (lateral and vertical)
- Side curtain airbag
 - Measured in a vertical zone
 - No demerit if vehicle meets FMVSS 226



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and property damage on the highway