

Using destructive testing  
to promote safer vehicles

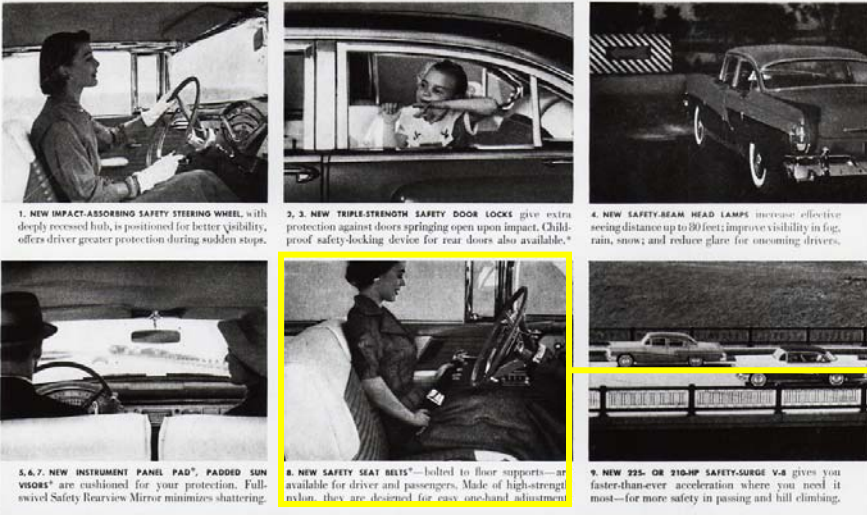
**Hurricane Risk Mitigation  
Leadership Forum**

**Orlando, Florida**

**Brian O'Neill**

# Safety ads – 1956

Ten new ways **THE BIG M** provides you with advanced motoring safety

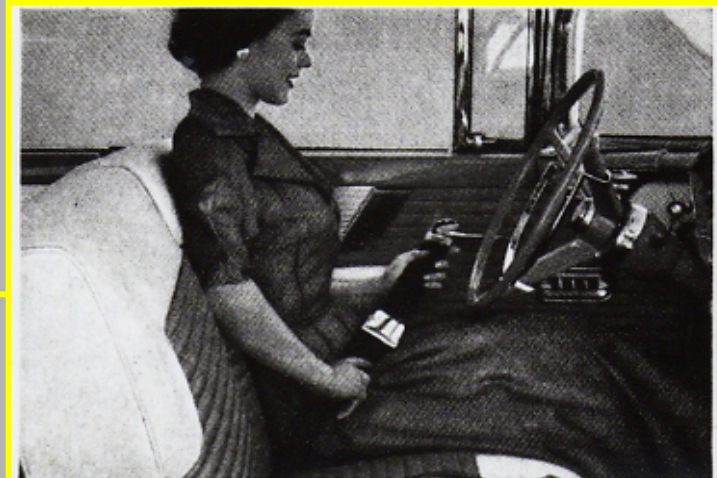


- 1. NEW IMPACT-ABSORBING SAFETY STEERING WHEEL**, with deeply recessed hub, is positioned for better visibility, offers driver greater protection during sudden stops.
- 2, 3. NEW TRIPLE-STRENGTH SAFETY DOOR LOCKS** give extra protection against doors springing open upon impact. Child-proof safety-locking device for rear doors also available.\*
- 4. NEW SAFETY-BEAM HEAD LAMPS** increase effective seeing distance up to 80 feet; improve visibility in fog, rain, snow; and reduce glare for oncoming drivers.
- 5, 6, 7. NEW INSTRUMENT PANEL PAD\*, PADDED SUN VISORS\*** are cushioned for your protection. Full-swivel Safety Rearview Mirror minimizes shattering.
- 8. NEW SAFETY SEAT BELTS\***—bolted to floor supports—are available for driver and passengers. Made of high-strength nylon, they are designed for easy one-hand adjustment.
- 9. NEW 225- OR 310-HP SAFETY-SURGE V-8** gives you faster-than-ever acceleration where you need it most—for more safety in passing and hill climbing.
- 10. IMPROVED SAFETY-GRIP BRAKES** provide quicker, smoother stopping action, have longer life. But—besides these ten new safety features, you'll want to see *all* of the new extra-value big-car features that **THE BIG M** offers this year—in beauty, power, performance. Best place to start looking: your Mercury dealer's. Best time: now.

A MAGNIFICENT VALUE IN THE FORD FAMILY OF FINE CARS

**For 1956...the big move is to THE BIG MERCURY**

\*Optional at extra cost  
MERCURY DIVISION • FORD MOTOR COMPANY



**8. NEW SAFETY SEAT BELTS\***—bolted to floor supports—are available for driver and passengers. Made of high-strength nylon, they are designed for easy one-hand adjustment.



U.S. government's  
NCAP frontal test



**1984 RENAULT SPORTSWAGON  
HIC 2053**



**1982 CHRYSLER LeBARON  
HIC 2644**

# Frontal crashworthiness evaluations

Offset deformable barrier crash tests

40 mph, 40% overlap

Vehicles tested are rated

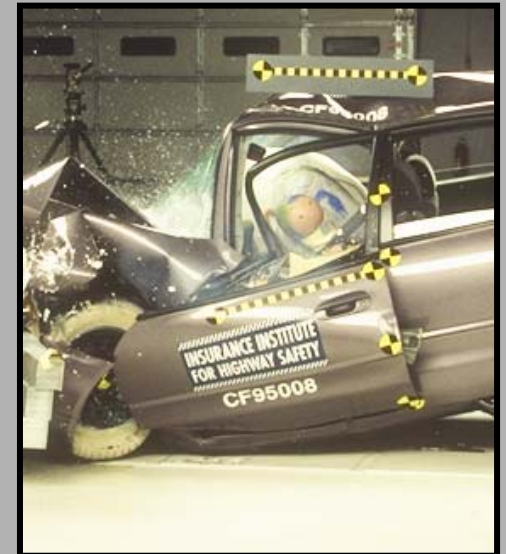
**G** GOOD **A** ACCEPTABLE **M** MARGINAL **P** POOR




Structure



Injury measures



Restraints/dummy kinematics

The image is a composite of two photographs. The top photograph shows a red SUV, likely a Ford Expedition, parked in a test facility. The bottom photograph shows a white sedan, likely a Ford Focus, also in a test facility. The text is overlaid on the center of the image.

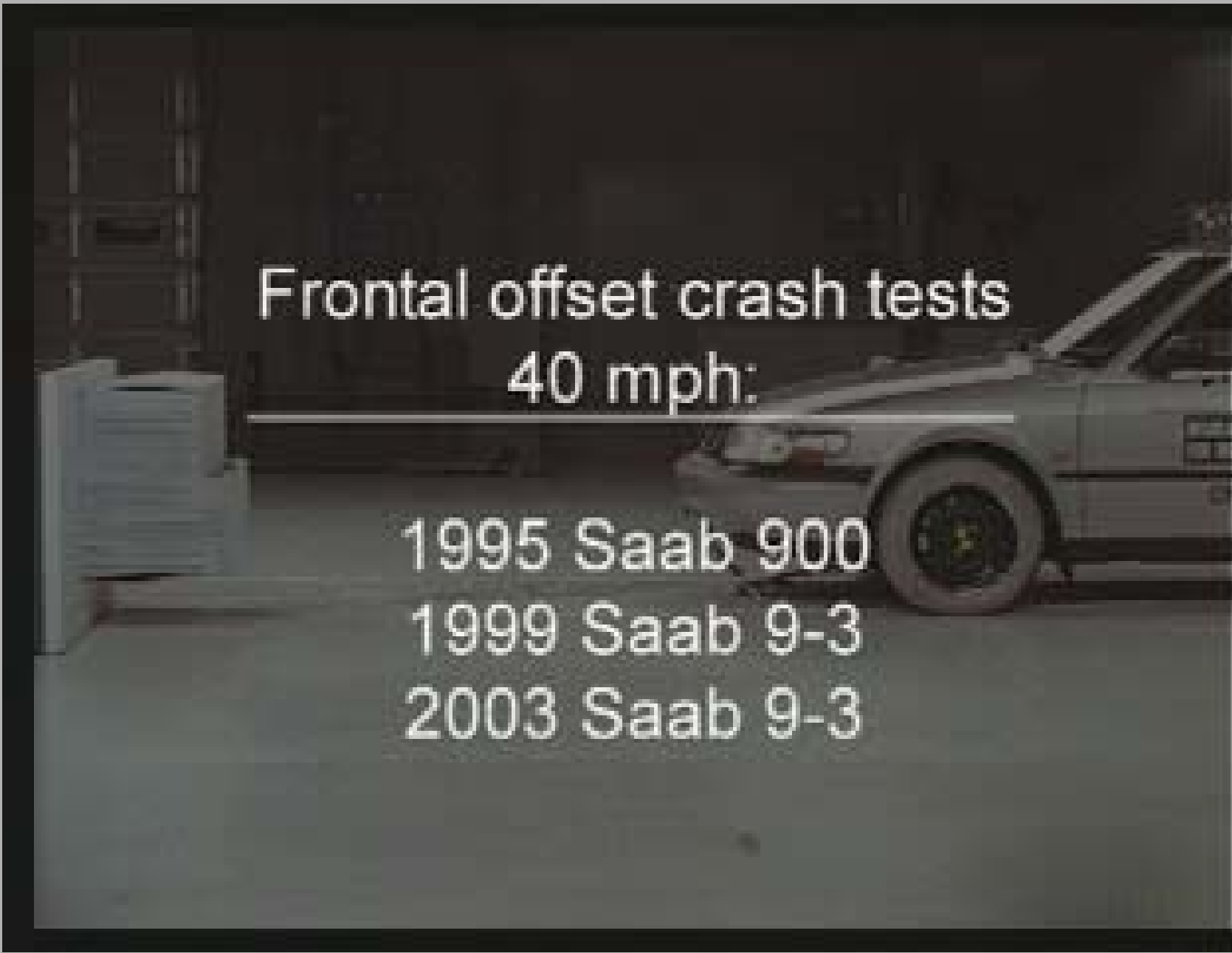
U.S. government  
NCAP frontal test  
compared with  
IIHS frontal test

Dateline 1995 midsize cars

Frontal offset crash tests:

1998 Toyota Sienna  
1997 Pontiac Trans Sport





Frontal offset crash tests  
40 mph:


1995 Saab 900

1999 Saab 9-3

2003 Saab 9-3



# The Tonight Show

A man in a dark suit, white shirt, and patterned tie is speaking at a podium. The background is dark and out of focus, showing some indistinct shapes and colors. The text is overlaid on the image in a white, sans-serif font.

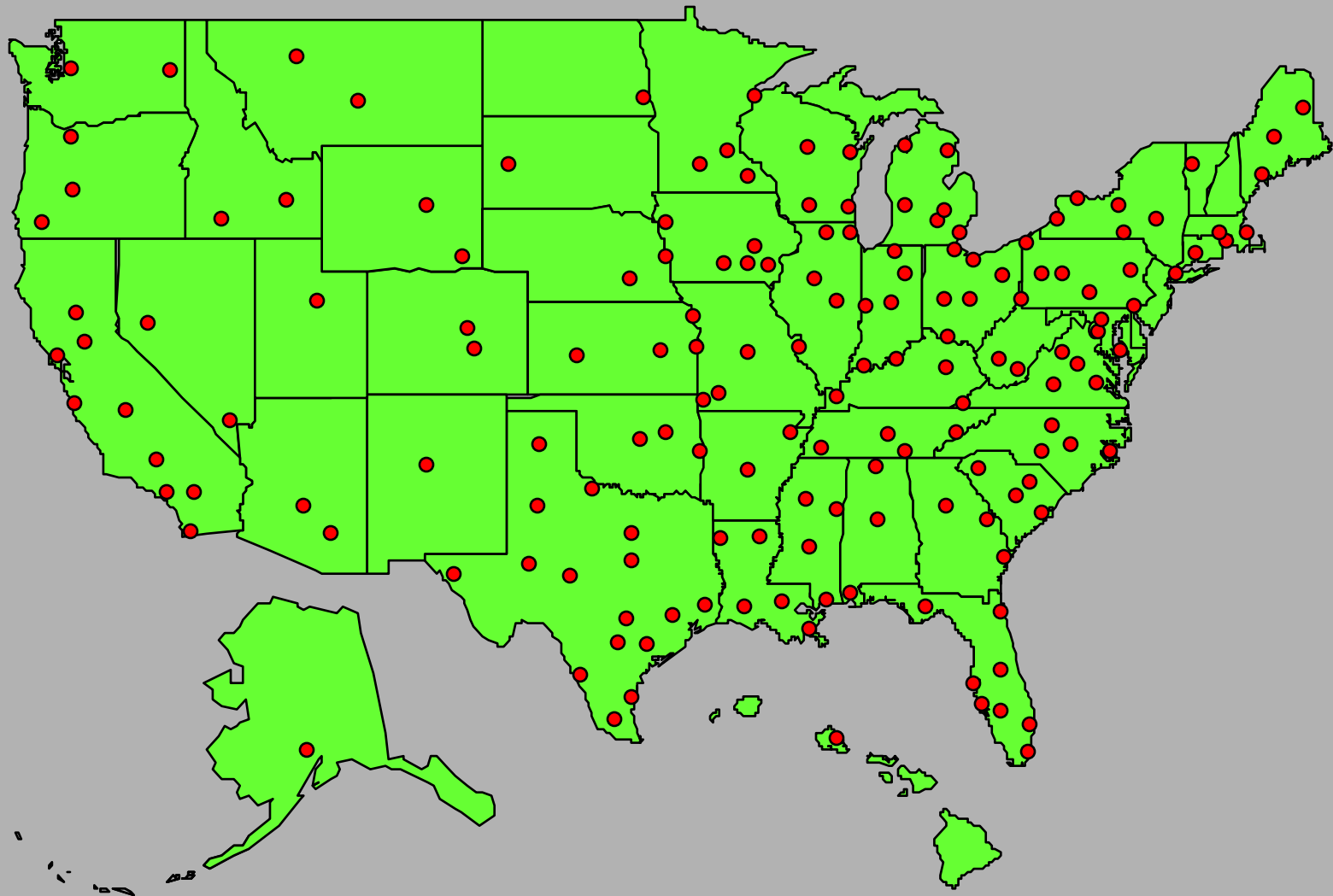
The 2001 Ford F-150 was one of the worst passenger vehicles IIHS ever tested. Its design dates back to 1997, before manufacturers began improving structural designs in response to IIHS testing.

# Media Coverage

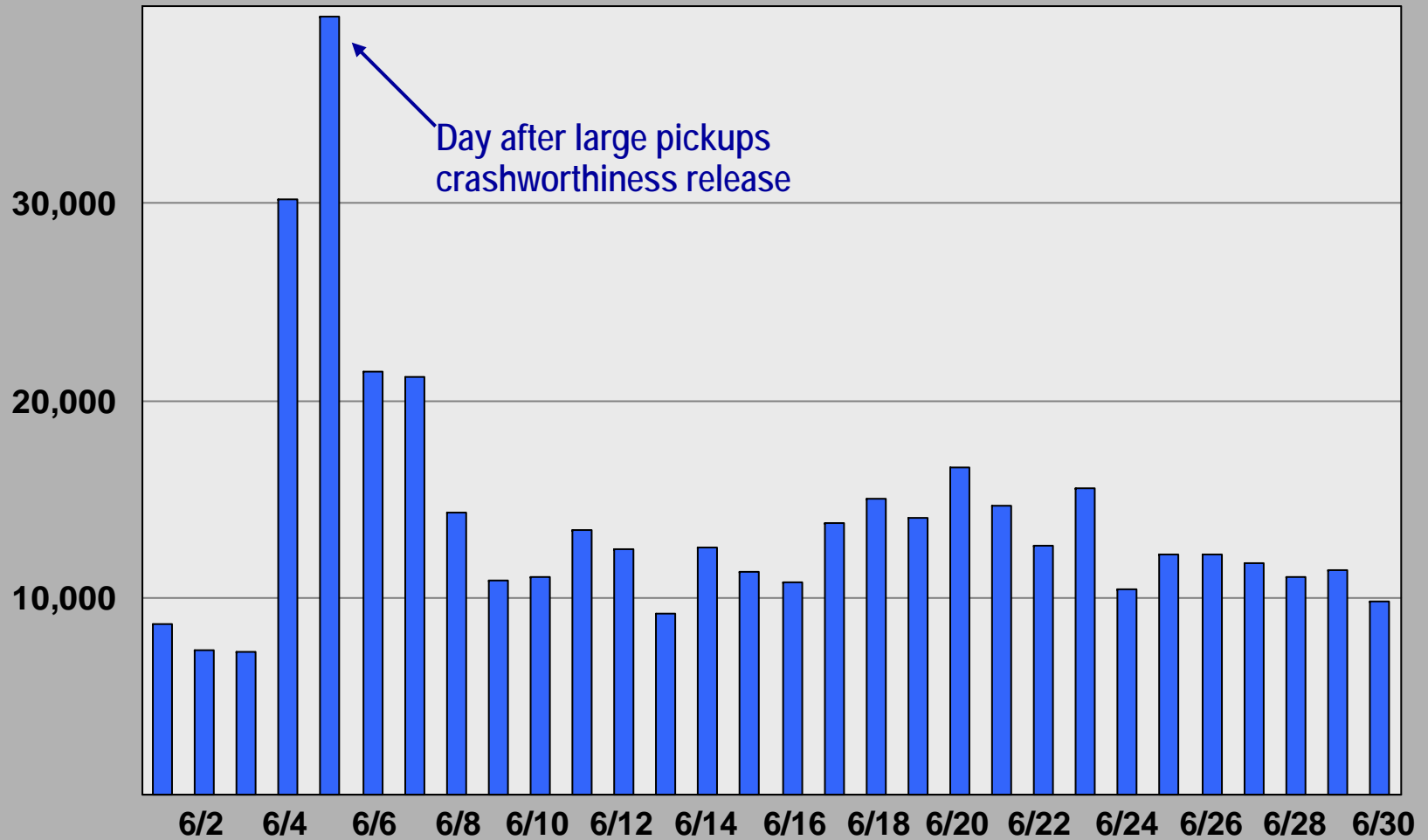
Large Pick-Ups


Crashworthiness-June 2001

213.3 million viewers  
1,855 broadcasts



# Visits to IIHS website, June 2001



A man in a dark suit and tie stands in a room, holding a white folder. He is pointing towards a large screen that displays a red 2004 Ford F-150. The screen is set against a background of a window with a view of a wooded area. The overall scene appears to be a professional presentation or a news report.

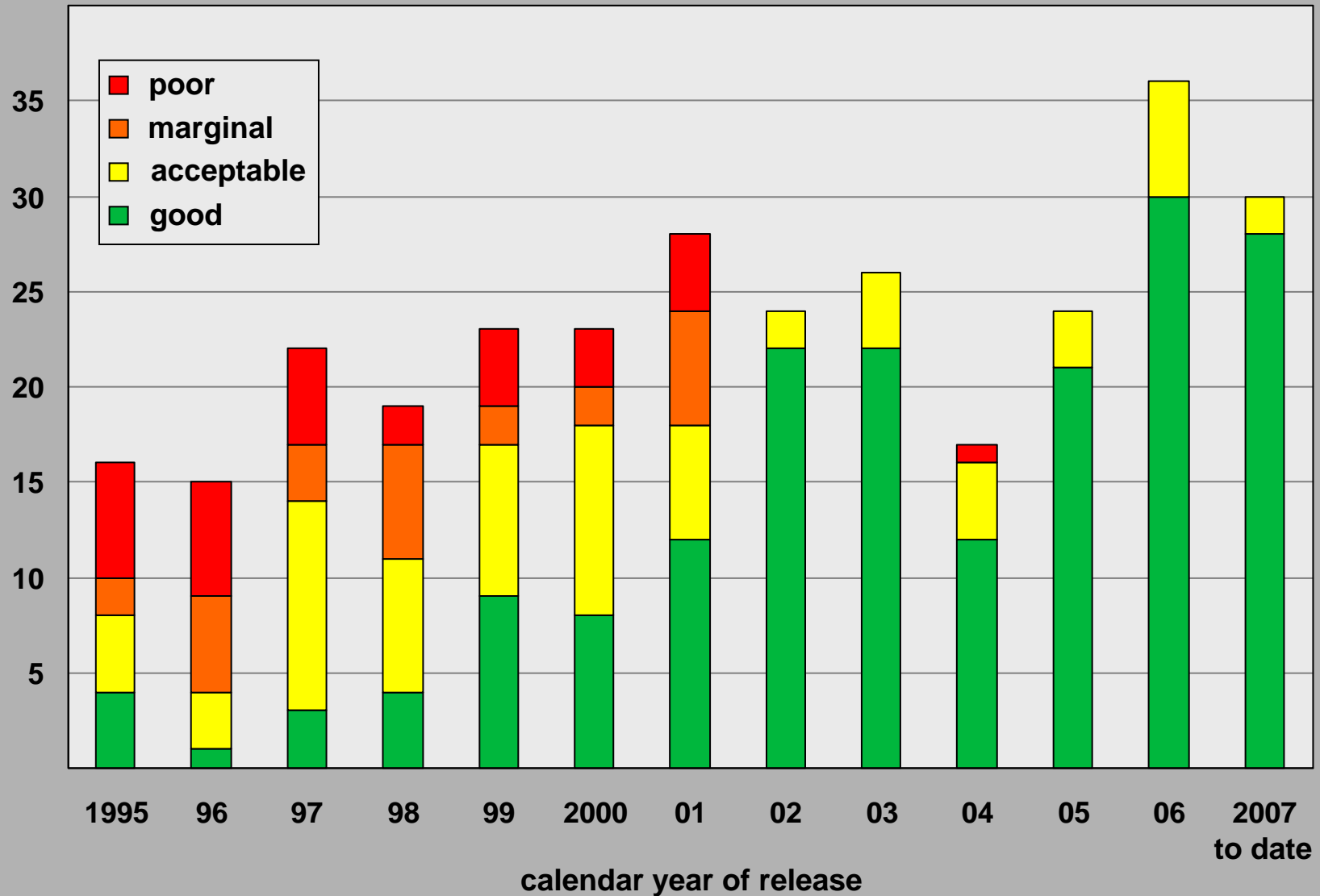
When IIHS tested the redesigned  
2004 Ford F-150 the improvement  
was obvious.

Advertisements featuring  
IIHS crashworthiness ratings

Based On 40-MPH Frontal Offset Crash Test, 12/17/97

# Frontal offset crash protection ratings

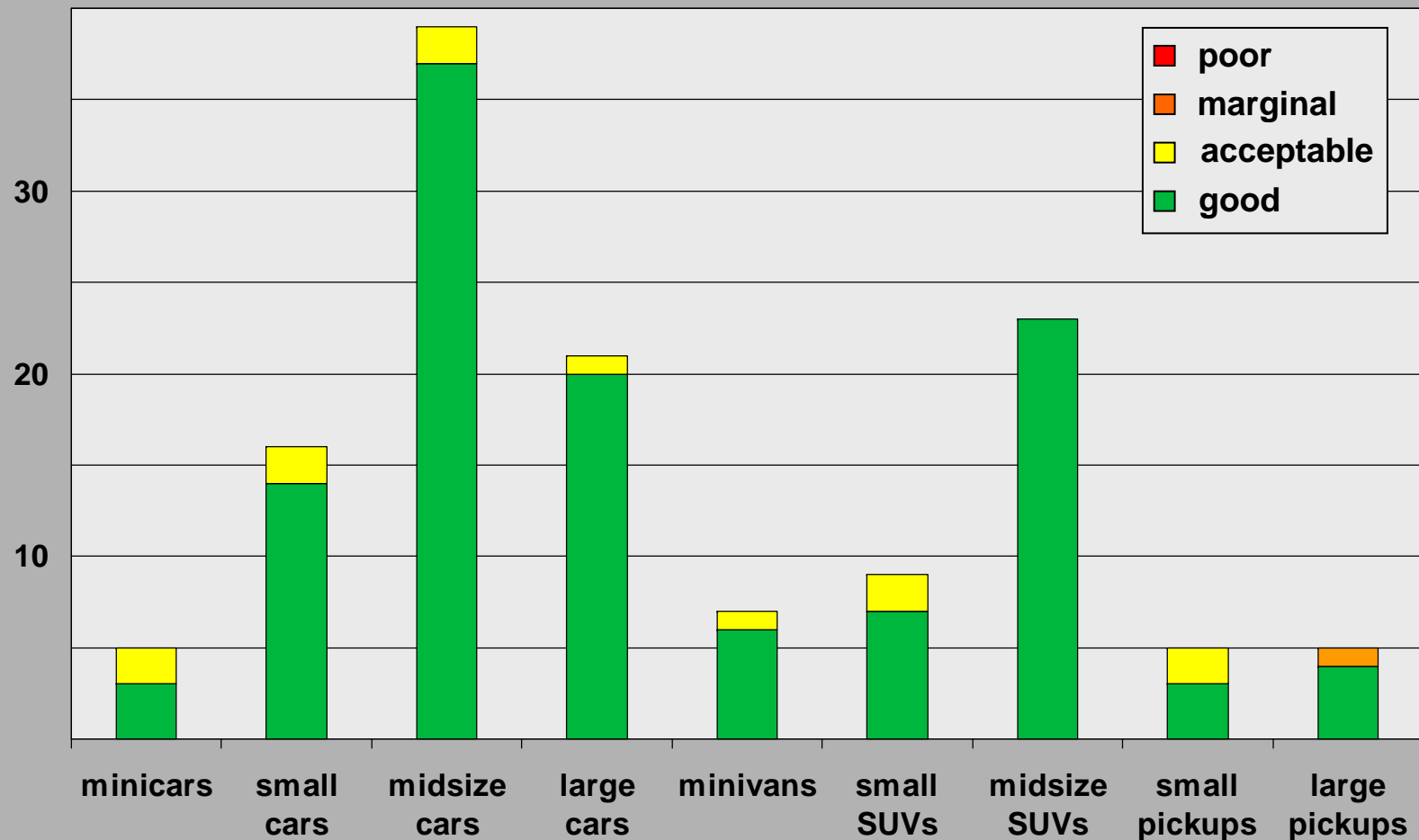
Improvements: 1995 to 2007





# Frontal crashworthiness ratings for currently available designs

October 2007





U.S. government's  
NCAP side impact test

# Typical passenger car and barriers

IIHS barrier taller and rides higher, contoured edges



*FMVSS 214 Barrier*



*IIHS Barrier*

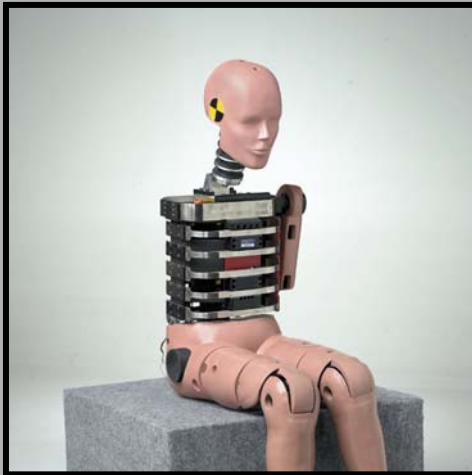
# Side Impact Crashworthiness Evaluations

Moving deformable barrier crash tests

3,300 lb barrier at 31 mph

Vehicles tested are rated

**G** GOOD **A** ACCEPTABLE **M** MARGINAL **P** POOR



Injury measures



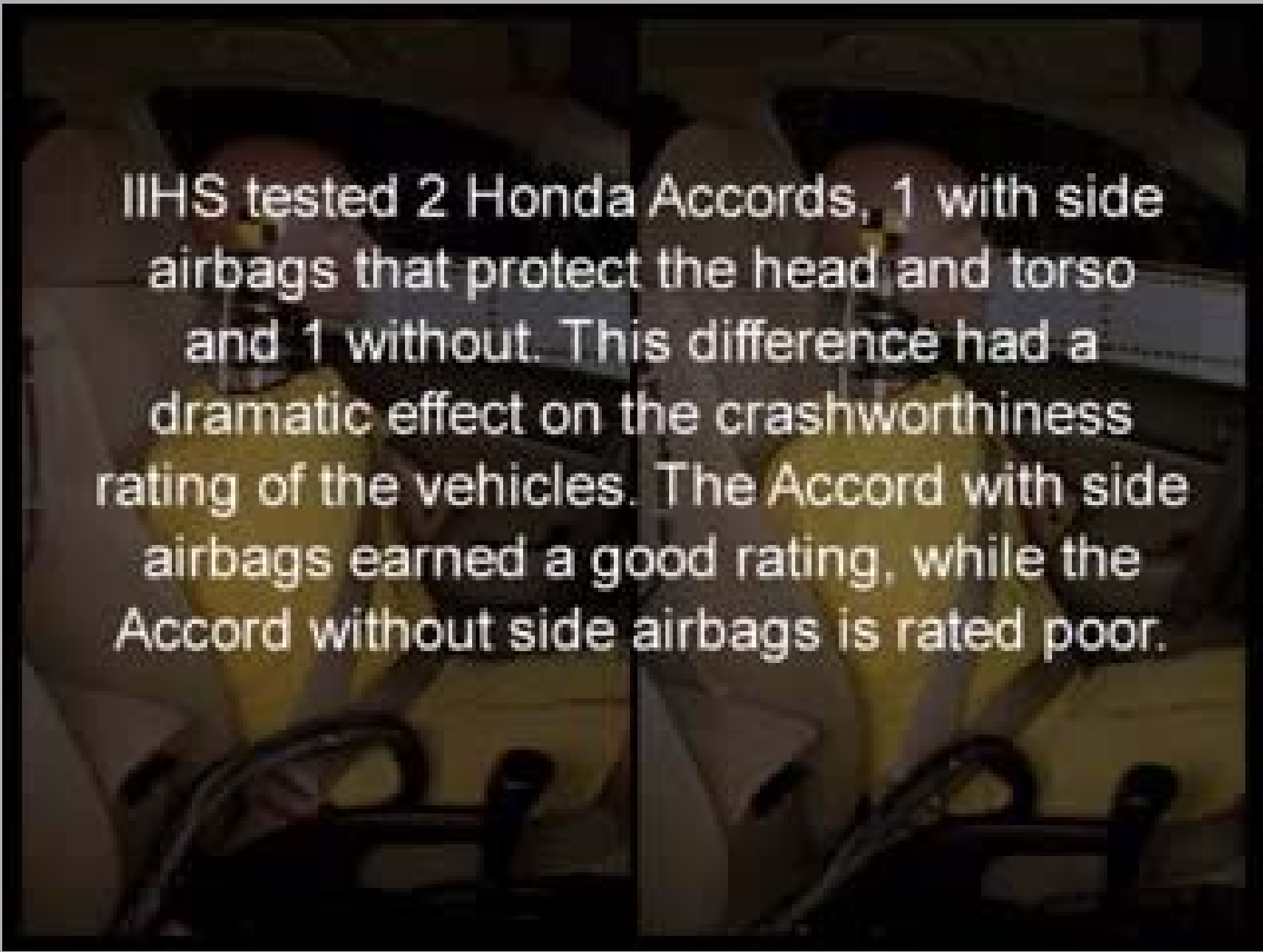
Head protection



Structure



IIHS side impact test



IIHS tested 2 Honda Accords, 1 with side airbags that protect the head and torso and 1 without. This difference had a dramatic effect on the crashworthiness rating of the vehicles. The Accord with side airbags earned a good rating, while the Accord without side airbags is rated poor.

Television coverage:

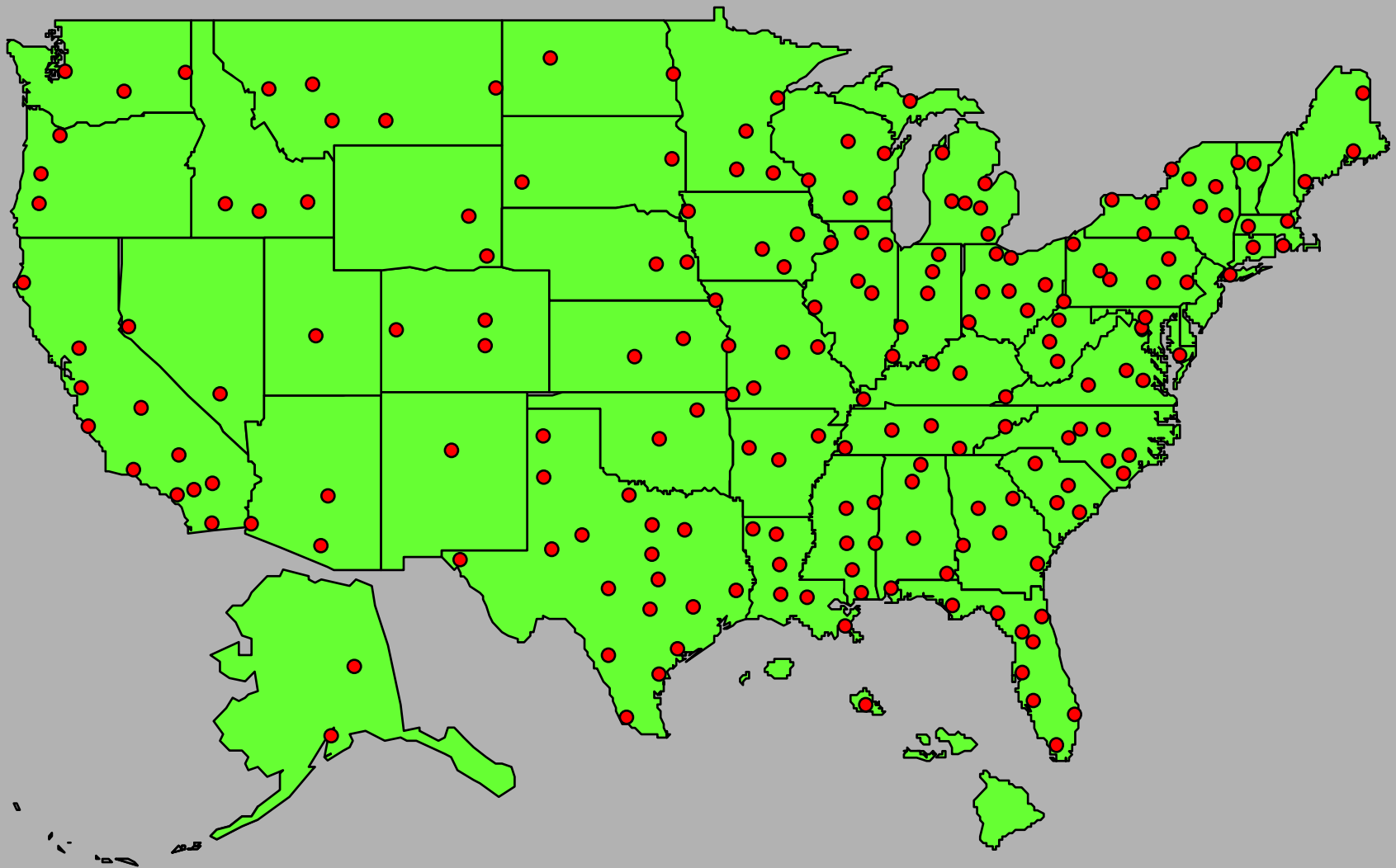
Side impact  
crashworthiness evaluations  
inexpensive midsize cars

# VNR coverage

Side impact crashworthiness

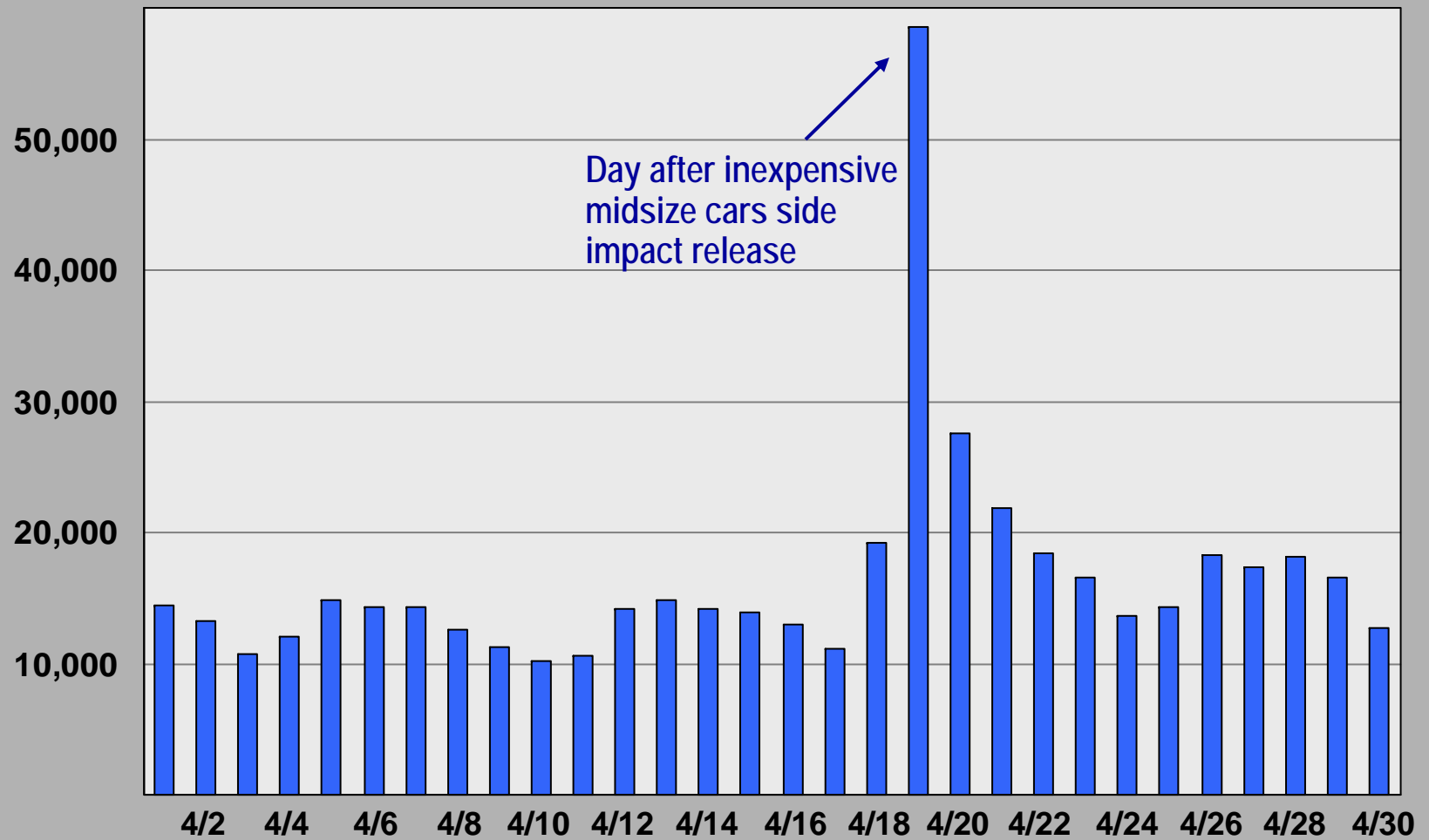
April 2004

211.7 million viewers  
2,081 broadcasts



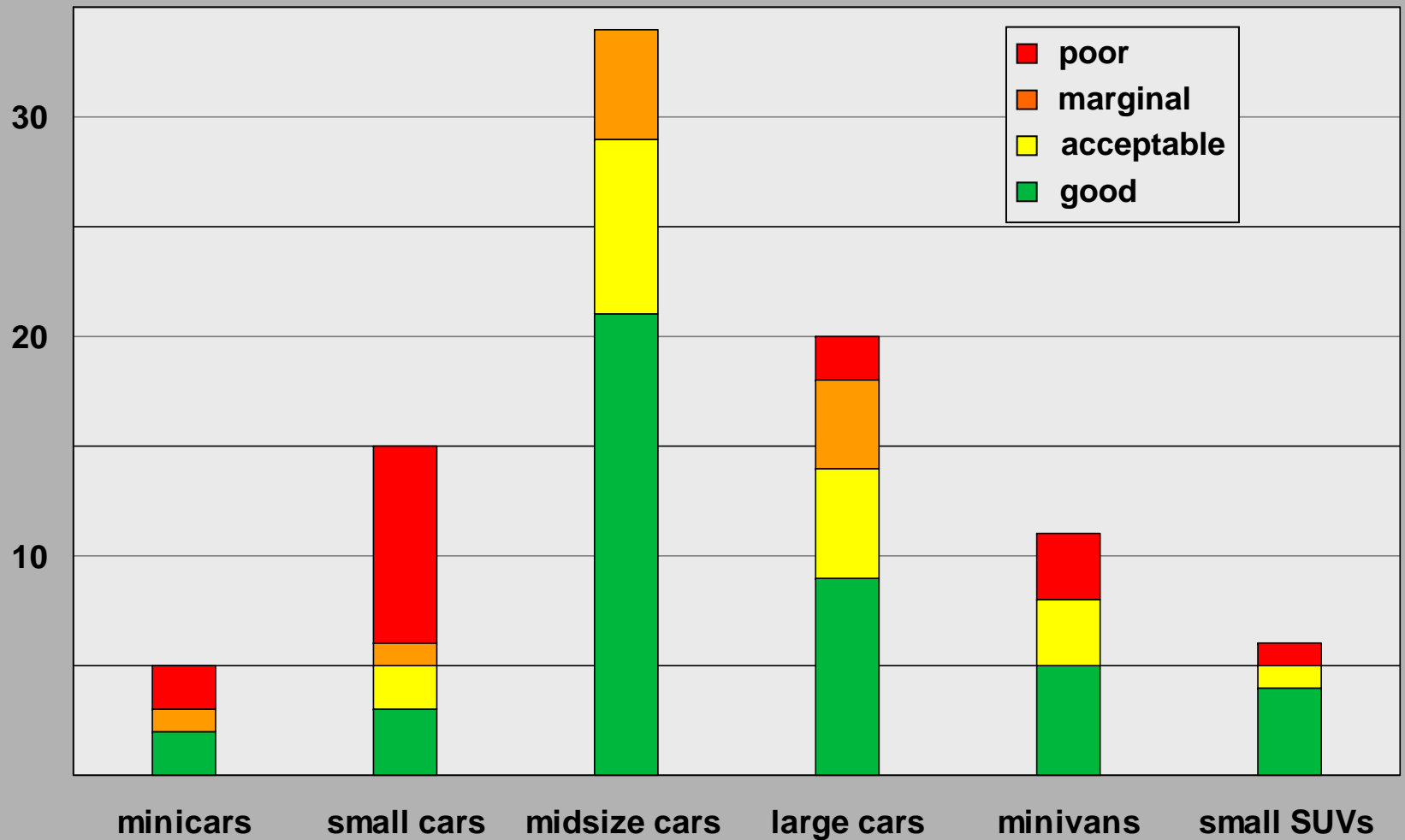


# Visits to IIHS website, April 2004



# Side impact crashworthiness ratings for currently available designs

October 2007





The Saab 9-3: the first car to receive a  
 “Double Best Pick” crash test rating. Ever.



The Insurance Institute for Highway Safety has awarded the Saab 9-3 Sport Sedan with the “Double Best Pick” rating<sup>†</sup> based on frontal offset and side-impact crash test results.



LEASE A 2004 SAAB 9-3 LINEAR  
 SPORT SEDAN STARTING FROM:

**\$259** MO/  
 36 MO.<sup>‡</sup>

- ADAPTIVE DRIVER AND PASSENGER FRONT AIRBAGS
- SIDE CURTAIN AIRBAGS
- FRONT SEAT SIDE AIRBAGS
- PENDULUM B-PILLAR SIDE-IMPACT STRUCTURE
- SAAB ACTIVE HEAD RESTRAINTS\*\*

**\$2,999**

due at lease inception for qualified lessees (includes down princ., sec. dep., acq. fee & first mo. princ.). Taxes, insurance, title, license, dealer fees, registration fees and \$350 disposition fee extra.

Saab **93** Sport Sedan

Welcome to the  
 state of independence



[www.saabusa.com](http://www.saabusa.com)

1 800 SAAB USA

†Results based on 40 mph frontal offset and 31 mph side-impact crash tests. \*\*Subject to credit approval. Delivery must be taken out of participating dealer inventory by November 1, 2004. Each dealer sets its own price. Your payments may vary. Dealer financial participation may affect consumer cost. Residency restrictions apply. Terms apply to a new 2004 Saab 9-3 Linear Sport Sedan based on MSRP of \$27,120.00. Lease payment for the Saab 9-3 Linear Sport Sedan is \$258.95 for 36 months, totaling \$9,322.20. Payments may be higher in some states. Option to purchase at lease end for \$12,475.20 (plus taxes, insurance, title and registration fees). Customer is liable for a mileage charge of \$.20 per mile over 36,000 miles and for excess wear and tear. Program unavailable to NY residents. NY residents: see dealer for other attractive programs. Not available with other program offers. \*\*Front seats only. Call 1 800 SAAB USA for important program details and limitations. SEE YOUR PARTICIPATING SAAB DEALER FOR COMPLETE DETAILS ON THESE AND OTHER LEASE AND FINANCE PROGRAMS. ©2004 SAAB CARS USA, INC.

Results based on 40 mph frontal offset  
and 31 mph side-impact crash tests.

## Saab 9-3 advertisement

INSURANCE INSTITUTE  
FOR HIGHWAY SAFETY

Frontal Offset Crash Test



# IIHS web visits

