

INSURANCE INSTITUTE FOR HIGHWAY SAFETY

March 27, 2007

The Honorable Nicole R. Nason
Administrator
National Highway Traffic Safety Administration
400 Seventh Street, SW
Washington, DC 20590

**Federal Motor Vehicle Safety Standards; Occupant Crash Protection;
Review: Redesigned Airbags; Evaluation Report
Docket No. NHTSA-2006-26486, Notice 1**

Dear Ms. Nason:

The Insurance Institute for Highway Safety (IIHS) appreciates this opportunity to comment on the National Highway Traffic Safety Administration's (NHTSA's) evaluation of redesigned airbags (Kahane, 2006). The NHTSA analysis enlarges upon a 2005 IIHS study (Braver et al., 2005), also indicating that the changes in airbag systems that occurred with the change in Federal Motor Vehicle Safety Standard (FMVSS) 208 were beneficial.

Using a standard and well-accepted methodology, NHTSA demonstrated that fatality risk to drivers and adult passengers in frontal crashes did not change significantly with the airbag redesign. However, for children in front seats, risk declined by approximately 45 percent. The IIHS study did not consider passengers but reported a slight reduction in driver fatality risk for all passenger vehicles.

The IIHS analysis produced one surprising and alarming result when the data were subsetted — namely that the risk to pickup truck drivers increased by a statistically significant 35 percent after airbag redesign. We could find no plausible explanation for this, and our report called for further research. The NHTSA analysis, which includes more recent data, found no change in the risk to pickup truck drivers, but indicated a possible increase in risk to passenger car drivers. Such inconsistencies may be an indication of the statistical uncertainty that comes with analyzing subsets of the data.

The IIHS analysis made no assessment of the effects of airbag redesign on front-seat passengers. We therefore appreciate NHTSA's efforts to address this issue. The conclusion that child passenger risk has been greatly reduced without increasing the risk to adults is a valuable addition to the body of highway safety research. This should reassure the public that the major amendment to FMVSS 208 that allowed these airbag redesigns was the correct step to improve their safety in a crash.

Sincerely,



Adrian K. Lund, Ph.D.
President

cc: Docket Clerk, Docket No. NHTSA-2006-26486

Reference

Braver, E.R.; Kyrychenko, S.Y.; and Ferguson, S.A. 2005. Driver mortality in frontal crashes: comparison of newer and older airbag designs. *Traffic Injury Prevention* 6:24-30.

Kahane, C.J. 2006. An evaluation of the 1998-1999 redesign of frontal air bags. Report no. DOT HS 810 685. Washington, DC: National Highway Traffic Safety Administration.