Influence of the Visibility out of the Vehicle Cabin on Lane-Change Crashes

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The influence of lateral visibility from the vehicle cabin on safety was evaluated by examining the differences in lane-change crashes of four-door and two-door body styles of the same vehicle models. These two vehicle styles were used because B-pillars on four-door models are farther forward, and thus nearer the fore-aft position of the driver. (Furthermore, the B-pillars on two-door models can be narrower, and some two-door models have no B-pillars at all.) To control for driver differences between these two body styles, going-straight-ahead crashes were used for comparison. The analysis used 2000-2003 North Carolina crash data, and considered the crash experience of four-door and two-door body styles for the same 10 vehicles for model years 1995 and newer.

The main finding is that four-door body styles are more likely to be involved in lane-change crashes than are two-door body styles of the same vehicle models. This finding suggests that lateral visibility out of the vehicle cabin affects safety.