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16. Abstract <p>This study examined the relationship between the size of the driver-side outside mirror and the frequency of lane-change crashes. To control for other vehicle and driver differences that might be associated with mirror size, the frequency of going-straight-ahead crashes was used for comparison. The analysis used 1991-2005 North Carolina crash data. The sample consisted of 77 vehicles, including 37 passenger cars, 14 minivans, 14 SUVs, and 12 pickup trucks. The physical dimensions of the vehicles' mirrors were measured with respect to a three-dimensional coordinate system that was relative to fixed points on the ground, when the driver was sitting in his/her normal driving position and looking at the mirror. Eye locations measured while drivers looked in the mirror were used to calculate the nominal field of view provided by the mirror. The effective field of view, limited by the body structure of the vehicle, was obtained using a manual pole-sighting technique.</p> <p>The main finding is that the relative likelihood of lane-change crashes was not related to the width, the height, or the area of the driver-side mirror. The most likely reason for this finding is that the effective field of view was not related to mirror size (although the nominal field of view was). That, in turn, is partly a consequence of two trends: larger mirrors being associated with larger eye-to-mirror distances, and drivers aiming their mirrors in ways that do not take full advantage of larger mirror sizes.</p>					
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