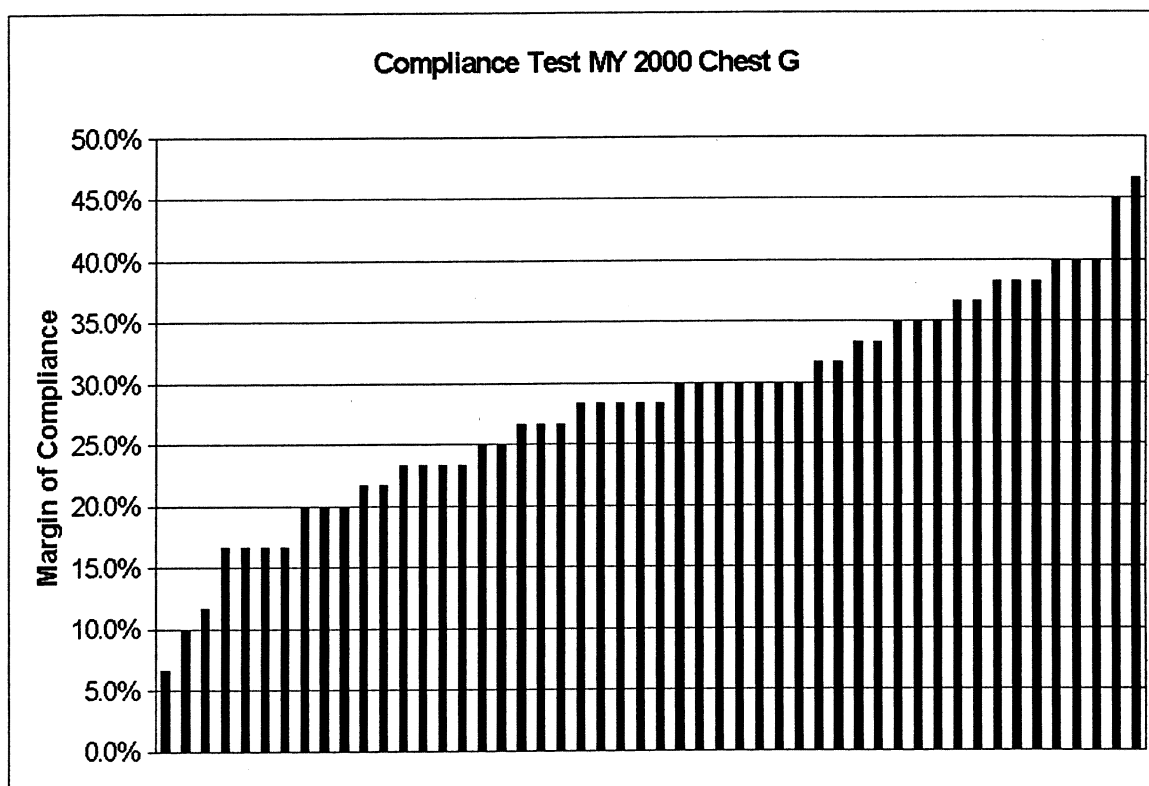


**Figure 3: Chest G Compliance Margins****BILLING CODE 4910-59-C**

FMVSS. No. 213 also has a requirement for head and knee excursions. Head excursion is limited to 720 mm (28 in) when a top tether is used, and 813 mm (32 in) without use of a top tether. Knee excursion is limited to 915 mm (36 in). Figures 4 and

5 below illustrate the margin of compliance for head excursion and knee excursion, respectively. Head and knee excursion limits are compliance limits imposed to reduce the chances of a child striking the vehicle interior or submarining (sliding under the belt feet first) in an automotive crash. Head and

knee excursions are much closer to the compliance limits than HIC and chest acceleration. This may reflect attention to occupant protection, since increases in distance traveled by the occupant reduces the forces experienced by the occupant.

**BILLING CODE 4910-59-P**