

person who is 1.83 meter (6 ft) tall and weighs 97.5 kg (215 lbs.).¹ She believes that belts that just meet the requirements of FMVSS No. 209 would not accommodate these larger Americans.

The agency granted the petition on February 28, 2001, and began to gather data on the availability of longer belts and on the size of the population who cannot currently buckle up. The result of this effort is contained in a NHTSA Technical Report² that is available in the Docket for this notice. Another research report upon which we relied in making the decision to terminate rulemaking is "FMVSS 208 Belt Fit Evaluation, Possible Modification to Accommodate Larger People," Vehicle Research and Test Center (VRTC), 1988. It is also available in the Docket for this notice.

On August 19, 2002, the agency received a second petition for rulemaking on this issue from Mr. Jay Levy. Mr. Levy petitioned for the same amendments to FMVSS No. 209 as those cited in Ms. Fisher's petition. Mr. Levy's petition duplicated the exact arguments stated in Ms. Fisher's petition and did not provide any new information.

II. Reasons for Termination

Both Ms. Fisher's and Mr. Levy's petitions contend that if a person can physically "fit" in a vehicle, the person should also be able to fasten his or her seat belt. However, in establishing minimum performance requirements for seat belts, including the size of these belts, the agency cannot base the applicability of those requirements on such an imprecise guideline. It would be difficult for the agency or vehicle manufacturers to determine what size person can "fit" in each particular vehicle. It would also be difficult, near the outer limits of known dimensions for the vehicle using population, to determine how much longer seat belts would have to be. In order for the agency to develop an objective and reasonable regulation, we would have to know or estimate the dimensions of the largest vehicle users. Therefore, the agency went about determining what would be required to formulate requirements to serve the population

that the petitioner believes is not currently served.

In determining the required seat belt length for a particular size person, the most critical measurement is seated hip circumference. The seated hip circumference of an occupant determines the length the belt must travel to come across the occupant to the latch. The seated hip circumference of the 95th percentile adult male referred to in FMVSS No. 209 is 1199 mm (47 in.). The estimated seated hip circumference of the 99th percentile adult person (including male and female) in the U.S. population is 1509 mm (59 in.).³

From this seated hip circumference, the agency estimated, using geometric approximation, the additional belt length needed to go around the hips of occupants larger than the 95th percentile male. We determined that a person with the 99th percentile hip circumference from the NHANES III data would need 254 mm (10.0 in.) additional belt length above that needed for a FMVSS No. 209 95th percentile male. Adding an assumption that the 99th percentile person would be wearing bulky winter clothing (which the standard does not require), the agency concluded that the additional belt length needed increases to 348 mm (13.7 in.).

Next, we estimated how many people cannot use their seat belts because the belts are too short to buckle. This involved examining three elements: (1) How many people have a hip circumference larger than the 95th percentile male, but not larger than that of the 99th percentile person from NHANES III, (2) how many vehicle make/models have standard belts that will not accommodate a person larger than the NHANES III 99th percentile male, and (3) how many of these vehicles do not have seat belt extenders or longer belts available.

We estimated from the NHANES III data that the total U.S. population older than 13 years with a hip circumference between that of the 95th percentile male and that of the NHANES III 99th percentile person is 38,191,527 persons or 19 percent. The agency also estimated that 1,980,744 persons, or 1 percent of the population 13 years and older, are larger than the NHANES III 99th percentile person.

Having determined the numbers of people likely to need additional belt length if all belts were no longer than the minimum length required by our standards, the agency then considered the question of how these larger people are currently being accommodated by vehicles now on the market. For many reasons, manufacturers provide additional belt length beyond the minimum required by NHTSA. In response to our inquiry, General Motors, Ford, DaimlerChrysler, and Honda provided extra belt length information about their respective model year 2003 vehicle make/models. The information provided by these four manufacturers covers 136 vehicle models.⁴ These manufacturers each provide an average of 18 to 20 inches of extra belt length for the driver and right front passenger positions in their respective model year 2003 vehicles. This extra belt length is more than enough to accommodate our estimate of what is needed for a 99th percentile person, including any additional length to go around the torso of the person. A detailed summary of the additional belt length information by specific make/model from these manufacturers, and all others we contacted, is provided in the Docket for this notice. Based on the available data, it appears that most vehicles can fit all but the largest users with the original belts.

To determine the availability of extra measures beyond standard belts, NHTSA contacted major vehicle manufacturers, to determine if they provide seat belt extenders, optional longer seat belts, or have other means for accommodating large users. A summary of this information is provided in Table 1. From this information, NHTSA calculated that 87.5 percent of vehicle make/models available today offer consumers either seat belt extenders or longer belts as an option. The remaining 12.5 percent do not offer longer belts or extenders but may already offer belts longer than the minimum length required by FMVSS No. 209.

⁴ NHTSA does not routinely collect information from manufacturers on belt length beyond what is required for the 95th percentile male, but beginning with model year 2003, the agency does collect information for consumers on whether or not longer belts are available with vehicle make/models in our "Buying a Safer Car" program. NHTSA intends to make this information available on our Web site at <http://www.nhtsa.dot.gov/cars/testing/ncap/> by selecting the vehicle of interest and clicking on "safety features."

¹ As discussed below, NHTSA does not agree that BMI is the appropriate measure for determining dimensions for seat belt fit.

² "Accommodation of Larger Occupants in Current Seat Belt Assemblies," NHTSA Technical Report, July 2002.

³ This dimension is estimated from the standing hip circumference measured in the NHANES III using a calculation described in the NHTSA Technical Report.