

TRUCK SIZE AND SAFETY

During the hearings held by the Senate Committee on Public Roads, the question was raised as to the relationship, if any, between the safety record of trucks and the different single and tandem axle weights, and gross weights, under which they are operating.

The only data that bears in this direction are based on the reports of the Class I and II for-hire motor carriers of property; these are the carriers subject to full economic regulation by the Interstate Commerce Commission.

Figure No. 2 shows the accident rates for the regulated carriers by regions, with regions divided according to the prevailing single-tandem axle loads limits, and the gross weights limits. As far as the latter is concerned any comparisons are of little significance since maximum gross weights are tantamount to being the same. No meaningful pattern emerges from these data but it must be kept in mind that the regulated carriers do not operate at all times at the maximum weights. Furthermore, many thousands of trucks do operate at maximum weights but are not subject to regulation and, therefore, we have no records of their safety experience.

FIGURE NO. 2.—COMPARISON OF ACCIDENT RATES OF CLASSES I AND II MOTOR CARRIERS OF PROPERTY BY REGIONS WITH ACCIDENT RATE FOR ALL MOTOR VEHICLES IN CONTERMINUS UNITED STATES AND THE NUMBER OF STATES IN EACH REGION WITH AXLE AND GROSS LOADS AT OR ABOVE THOSE PROPOSED IN S. 2658

Region	Number of States	Axle weights, number of States allowing—		Gross weights, number of States allowing—		Accident rate per million vehicle miles
		20,000 lbs. single and/or 36,000 lbs. tandem or more	Less than 20,000 lbs. single and/or 36,000 lbs. tandem	More than 73,280 lbs.	73,280 lbs. or less ¹	
New England.....	6	6	0	0	6	1.61
Middle Atlantic.....	7	6	1	0	7	2.43
Central.....	4	4	4	2	2	2.93
Southern.....	9	5	4	1	8	2.80
Northwest.....	4	0	4	0	4	2.07
Midwest.....	4	0	4	0	4	1.82
Southwest.....	4	0	4	0	4	2.46
Rocky Mountains.....	6	3	3	6	0	1.46
Pacific.....	5	1	4	5	0	1.81
Total.....	49	21	28	14	35	2.42
Accident rate all motor vehicles, conterminus United States.....						14.55

¹ A few States allow 73,000 lbs. and the District of Columbia allows 70,000 lbs.

Sources: Motor carrier data, U.S. Department of Transportation, Federal Highway Administration, Bureau of Motor Carrier Safety, "1965-66 Accidents of Large Motor Carriers of Property." All motor vehicles in the United States, National Safety Council, "Accident Facts, 1966."

STOPPING ABILITY

Related to the question of truck size and safety is the stopping ability of these vehicles. In its report on vehicle sizes and weights submitted to Congress in 1964, the Bureau of Public Roads deals at length with braking. The report indicates that, although the stopping distances of combination vehicles are greater than those of automobiles, compensating factors tend to maintain a balance between stopping distance of these vehicles and automobiles operating on the highway.

The compensating factors of combination vehicles are: (1) better visibility afforded drivers; (2) more experienced drivers; (3) the fact that combination vehicles tend to swerve less, and (4) slide less in stopping than do automobiles.

The Department of Commerce report finds that, because of the height at which truck drivers sit, they have much greater sight distance ahead than do automobiles and hence can observe and act on potential hazards from a greater distance than can automobile drivers. The report also indicates truck driver training and experience is much more complete than the average automobile driver's, and that this is a very positive safety factor.