

TABLE D.—CLASSIFYING HIGHWAY MILEAGE ACCORDING TO TRAFFIC DENSITY.

Main-highway System.	Mileage carrying the Following Numbers of Motor-vehicles per Day.															Total.
	0-50.	50-100.	100-200.	200-300.	300-400.	400-500.	500-600.	600-800.	800-1,000.	1,000-1,500.	1,500-2,000.	2,000-2,500.	2,500-3,000.	3,000-4,000.	Over 4,000.	
1937-38 census—																
North Island ..	1,110 ¹ ₄	1,356	1,500 ³ ₄	980 ¹ ₄	467 ¹ ₂	320 ¹ ₄	173 ³ ₄	188 ¹ ₄	231 ¹ ₂	85 ¹ ₂	55	3 ¹ ₄	..	4 ¹ ₂	1 ¹ ₄	6,478
South Island ..	1,440 ¹ ₄	1,270 ³ ₄	1,346 ¹ ₄	573 ¹ ₄	110	170 ¹ ₂	100 ¹ ₄	146	29	26 ¹ ₂	8 ¹ ₄	9 ¹ ₄	3 ¹ ₄	4 ¹ ₂	..	5,232
New Zealand ..	2,550 ¹ ₂	2,626 ³ ₄	2,847	1,553 ¹ ₂	577 ¹ ₂	490 ³ ₄	274	334 ¹ ₄	260 ¹ ₂	112	63 ¹ ₄	13	3 ¹ ₄	5	1 ¹ ₄	11,710
1934-35 census—																
New Zealand ..	2,820 ¹ ₄	3,217	2,892 ¹ ₂	891 ¹ ₄	580	253 ¹ ₄	238 ³ ₄	149 ¹ ₂	58 ¹ ₄	58 ¹ ₂	15	1 ¹ ₂	1 ¹ ₄	..	..	11,176

(5) THE STATE HIGHWAY SYSTEM.

In 1937-38 the State highways, consisting of 3,761 miles, or 32 per cent. of the main-highway system, carried 57 per cent. of the total traffic on that system. In 1934-35 the same roads (not then declared State highways) carried nearly 55 per cent. of the main-highway traffic. The average density of motor traffic on these 3,761 miles increased from 236 in 1934-35 to 367 per day in 1937-38.

TABLE E.—MOTOR TRAFFIC USING THE STATE HIGHWAY SYSTEM.

State Highway System.	Mileage.	Annual Vehicle-mileage.		Average Traffic Density per Day.		Percentage Increase in Traffic.
		1937-38.	1934-35.	1937-38.	1934-35.	
North Island	2,112 ³ ₄	339,122,595	216,131,130	439·8	280·7	56·7
South Island	1,648 ³ ₄	165,004,100	107,675,000	274·2	178·9	53·3
New Zealand	3,761 ¹ ₂	504,126,695	321,106,130	367·2	236·0	55·6

(6) DISTRIBUTION OF TRAFFIC ACCORDING TO SEASON, DAY, AND HOUR.

Figure 2 compares the traffic on each day of the week in the winter and in the summer. It is seen that on each day of the week in the summer the traffic density was considerably in excess of that on the corresponding day during the winter census. The increase is particularly marked on Saturdays and Sundays. Of the individual days of the week the greatest volume of traffic on the highways, both winter and summer, was on a Sunday. In the winter a greater volume of traffic was carried on Friday than on Saturday, but in the summer Saturday ranked next to Sunday. On the other hand, the results of the 1934-35 census indicated that the Saturday and Sunday traffic during the winter then was considerably below the week-day traffic. This result, however, was probably largely due to the fact that stormy weather prevailed throughout most of New Zealand during the particular week-end of the winter census. Figure 3 is of interest in showing the increase in traffic on week-days, Saturdays, and Sundays over the three-year period. In each case the summer traffic is compared. As far as can be ascertained, the weather generally was fine throughout New Zealand for both the periods taken, and the comparison is consequently a fair one. The phenomenal increase in Sunday traffic—an increase of 75 per cent.—is worthy of note. The increase on Saturday was 45 per cent. and on week-days 38 per cent.

The variations in traffic density throughout the day are depicted in Fig. 4. It will be noted that the busiest two-hour stretch on every day, both winter and summer, is from 4 p.m. to 6 p.m. After 6 p.m. the traffic falls away very rapidly, except on Saturdays and Sundays in the summer, when the traffic between 6 p.m. and 8 p.m. is very little less than during the preceding two hours. The only hours where the traffic density in the winter exceeds that in the summer are from 2 p.m. to 4 p.m. on Sunday and in the small hours of Saturday morning. The former feature is probably due to the greater concentration of pleasure driving into a shorter period on winter Sundays than in the summer. The traffic between 10 a.m. and noon on winter Sundays is substantially less than in the summer. It accordingly seems that a great deal of the traffic that is spread over the hours between 10 a.m. and 8 p.m. in the summer-time confines itself to the hours between 2 p.m. and 6 p.m. on winter Sundays.