

1939.  
NEW ZEALAND.

TRANSPORT DEPARTMENT

(ANNUAL REPORT OF).

*Presented to both Houses of the General Assembly by Leave.*

The Hon. R. SEMPLE, Minister of Transport, Wellington.

Sir,—  
Herewith I have the honour to submit the annual report of the Transport Department for the year ended 31st March, 1939.

I have, &c.,

G. L. LAURENSEN, Commissioner of Transport.

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## REPORT.

### 1. INTRODUCTION.

The following summary outlines the main facts recorded in this report :—

- (1) Continued expansion of motor transport : Vehicles licensed increased by 9·84 per cent., from 280,000 in 1938 to 307,000, while petrol-consumption rose from 82,000,000 gallons to 89,000,000 gallons.
- (2) Traffic census shows tremendous increase in traffic on main-highway system. Between 1934-35 and 1937-38 the total mileage travelled increased by 50 per cent., largely due to greater use being made of the private car.
- (3) Expenditure on roads, streets, and bridges reached a new high level. In 1937-38 a total of £10,600,000, or £1,600,000 more than the 1936-37 figure of £9,000,000, was recorded.
- (4) Motor-taxation receipts reflect expansion in motor transport. Taxation amounted to £5,900,000, or £500,000 in advance of the previous year's figure of £5,400,000. Petrol-tax netted £4,100,000, against £3,800,000 in 1937-38.
- (5) Motor accidents : 4,383 accidents occurred during the year, causing 246 deaths and injuries to 5,635 other people.
- (6) Decline in the motor-accident death-rate from 9·63 deaths per 10,000 motor-vehicles in 1937-38 to 8·85 in 1938-39.
- (7) The Road Safety Council continued to give valuable assistance in advising on road-safety matters.
- (8) Convictions for breaches of traffic laws numbered 24,322 in 1938-39, compared with 17,814 in 1937-38.
- (9) Improvement in the standard of mechanical fitness of motor-vehicles : At the inspection in March, 1939, 55 per cent. of the vehicles tested for warrants of fitness were found to be correct in every detail. At the first inspection in September, 1937, only 21 per cent. passed the standard tests.
- (10) An excess of claims over premiums was recorded for the third-party-insurance scheme, necessitating increases in the premiums for certain classes of vehicles.
- (11) At the 31st March there were 774 passenger-services, 3,161 goods-services, and 99 taxi-services licensed under the Transport Licensing Act, covering in all 7,500 vehicles.
- (12) Considerable increase in volume of business done by licensed motor transport and commercial-aircraft services.

## 2. DEVELOPMENT OF MOTOR TRANSPORT.

### A. REGISTRATIONS OF MOTOR-VEHICLES, BY TYPES OF VEHICLE.

Under the Motor-vehicles Act a new vehicle is registered and simultaneously licensed for the ensuing year or part thereof. The license is renewable each year. If a license is not renewed, the registration is classed as "dormant," and after remaining "dormant" for two complete years is cancelled, the assumption being that the vehicle in question is permanently off the road. If, however, the vehicle is again brought into use after its registration has thus been cancelled, it is treated as a new registration. The registration figures set out hereunder, therefore, are not an exact record of the number of new vehicles introduced into our traffic system; they include an unknown but probably small number of vehicles which have been out of commission for more than two years.

The following table sets out the annual registrations since 1926 :—

Year ended 31st March,	Cars.	Commercial Vehicles.	Cycles.	Total Registrations.
1926 .. .. .	18,811	4,409	5,130	28,350
1927 .. .. .	16,439	4,692	5,464	26,595
1928 .. .. .	12,531	3,399	4,560	20,490
1929 .. .. .	18,739	4,167	4,768	27,674
1930 .. .. .	20,802	5,745	4,300	30,847
1931 .. .. .	12,378	4,113	3,139	19,630
1932 .. .. .	6,151	2,656	2,058	10,865
1933 .. .. .	4,716	2,640	2,072	9,428
1934 .. .. .	5,551	3,339	1,956	10,846
1935 .. .. .	12,895	5,011	2,233	20,139
1936 .. .. .	19,469	6,445	2,421	28,335
1937 .. .. .	25,796	8,999	3,028	37,823
1938 .. .. .	29,837	10,413	3,018	43,268
1939 .. .. .	28,937	10,862	2,233	42,032

The foregoing figures have been incorporated in the following table, which shows the relative increase or decrease in the annual registrations measured according to the figures for 1926 :—

Year ended 31st March,	Cars.	Commercial Vehicles.	Cycles.	Total Registrations.
1926 .. .. .	100	100	100	100
1927 .. .. .	87	106	107	94
1928 .. .. .	67	77	89	72
1929 .. .. .	100	95	93	98
1930 .. .. .	111	130	84	109
1931 .. .. .	66	93	61	69
1932 .. .. .	33	60	40	38
1933 .. .. .	25	60	40	33
1934 .. .. .	30	76	38	38
1935 .. .. .	69	114	44	71
1936 .. .. .	103	146	47	100
1937 .. .. .	137	204	59	133
1938 .. .. .	159	236	59	163
1939 .. .. .	154	246	44	148

In comparison with the year 1937-38, the commercial-vehicle registrations increased by 4.31 per cent., whilst there was a decline of 3.01 per cent. in car registrations and of 26.01 per cent. in motor-cycle registrations.

The increase in commercial-vehicle registrations, 449, includes a considerable number of agricultural vehicles not previously registered.

### B. REGISTRATIONS OF MOTOR-VEHICLES, BY COUNTRY OF MANUFACTURE.

The following table shows the country of manufacture and the number of motor-vehicles registered during the years ended 31st March, 1927 to 1939, inclusive :—

Year ended 31st March,	Great Britain.	United States of America or Canada.	Other Countries.	Total Registrations.
<i>Motor-cars.</i>				
1927 .. .. .	2,185	13,623	631	16,439
1928 .. .. .	2,172	10,078	281	12,531
1929 .. .. .	2,886	15,667	186	18,739
1930 .. .. .	3,675	16,993	134	20,802
1931 .. .. .	3,265	9,057	56	12,378
1932 .. .. .	2,607	3,477	67	6,151
1933 .. .. .	2,832	1,834	50	4,716
1934 .. .. .	3,091	2,406	54	5,551
1935 .. .. .	6,096	6,730	69	12,895
1936 .. .. .	9,396	10,023	50	19,469
1937 .. .. .	14,556	11,133	107	25,796
1938 .. .. .	16,610	12,919	308	29,837
1939 .. .. .	16,452	11,884	601	28,937
Totals .. .. .	85,823	125,824	2,594	214,241

Year ended 31st March,	Great Britain	United States of America or Canada.	Other Countries.	Total Registrations.
<i>Commercial Vehicles.</i>				
1927 .. ..	630	3,907	155	4,692
1928 .. ..	522	2,706	171	3,399
1929 .. ..	522	3,318	327	4,167
1930 .. ..	502	4,792	451	5,745
1931 .. ..	392	3,225	496	4,113
1932 .. ..	447	1,574	635	2,656
1933 .. ..	686	1,149	805	2,640
1934 .. ..	941	1,471	927	3,339
1935 .. ..	1,266	2,791	954	5,011
1936 .. ..	1,515	3,785	1,145	6,445
1937 .. ..	1,955	4,991	2,053	8,999
1938 .. ..	2,032	5,697	2,684	10,413
1939 .. ..	1,961	5,419	3,482	10,862
Totals ..	13,371	44,825	14,285	72,481
<i>Motor-cycles.</i>				
1927 .. ..	3,851	1,592	21	5,464
1928 .. ..	3,479	1,067	14	4,560
1929 .. ..	3,794	949	25	4,768
1930 .. ..	3,486	802	12	4,300
1931 .. ..	2,581	548	10	3,139
1932 .. ..	1,567	483	8	2,058
1933 .. ..	1,515	545	12	2,072
1934 .. ..	1,428	514	14	1,956
1935 .. ..	1,669	542	22	2,233
1936 .. ..	1,897	486	38	2,421
1937 .. ..	2,600	419	9	3,028
1938 .. ..	2,714	302	2	3,018
1939 .. ..	2,005	226	2	2,233
Totals ..	32,586	8,475	189	41,250

The foregoing figures are expressed as percentages in the following table :

Year ended 31st March,	Great Britain.	United States of America or Canada.	Other Countries.	Total Registrations.
<i>Motor-cars.</i>				
1927 .. ..	13	83	4	100
1928 .. ..	17	81	2	100
1929 .. ..	15	84	1	100
1930 .. ..	17	82	1	100
1931 .. ..	26	73	1	100
1932 .. ..	42	57	1	100
1933 .. ..	60	39	1	100
1934 .. ..	56	43	1	100
1935 .. ..	47	52	1	100
1936 .. ..	48	52	..	100
1937 .. ..	57	43	..	100
1938 .. ..	56	43	1	100
1939 .. ..	57	41	2	100
Totals ..	40	59	1	100
<i>Commercial Vehicles.</i>				
1927 .. ..	14	86	..	100
1928 .. ..	16	84	..	100
1929 .. ..	14	86	..	100
1930 .. ..	9	91	..	100
1931 .. ..	11	89	..	100
1932 .. ..	22	78	..	100
1933 .. ..	37	63	..	100
1934 .. ..	39	61	..	100
1935 .. ..	31	69	..	100
1936 .. ..	29	71	..	100
1937 .. ..	28	72	..	100
1938 .. ..	26	74	..	100
1939 .. ..	27	73	..	100
Totals ..	23	77	..	100

Year ended 31st March,	Great Britain.	United States of America or Canada.	Other Countries.	Total Registration.
<i>Motor-cycles.</i>				
1927 .. ..	70	30	..	100
1928 .. ..	76	24	..	100
1929 .. ..	80	20	..	100
1930 .. ..	81	19	..	100
1931 .. ..	82	18	..	100
1932 .. ..	76	24	..	100
1933 .. ..	73	26	1	100
1934 .. ..	73	26	1	100
1935 .. ..	75	24	1	100
1936 .. ..	78	20	2	100
1937 .. ..	86	14	..	100
1938 .. ..	90	10	..	100
1939 .. ..	90	10	..	100
Totals ..	79	20	1	100

The above table shows a steady growth of the share of new cars obtained by Great Britain up till the depression year of 1933, when 60 per cent. came from that source. Then came a drop following upon the improving economic conditions, with a sudden increase for 1936-37 to 57 per cent., while for 1938-39 a similar percentage is maintained.

Up to 1933-34 a somewhat similar trend is noticeable in the case of commercial vehicles, when 39 per cent. of the total came from Great Britain. Over the past four years this proportion has been slowly declining in favour of American and Canadian vehicles, and the imports from these two countries outnumber imports from Great Britain by over two to one. It should be noted that imports from "Other Countries" have been omitted from the percentage table; this is because practically all the figures under that heading refer to trailers, 3,409 of the 3,482 vehicles under that heading for 1938-39 being trailers.

In the motor-cycle field the British entry shows an increasing predominance since the depression years, and the slight swing-over to American machines has not been maintained. Foreign motor-cycles do not appear to be able to establish any hold on the New Zealand motor-cycle market.

#### C. MOTOR-VEHICLES LICENSED AS AT 31ST MARCH, 1939.

The appended figures show the number of motor-vehicles licensed for the year 1938-39 as at 31st March, 1939 (the licensing year expires on 31st May each year):—

Type of Vehicle.	North Island.	South Island.	New Zealand Total.
Cars .. ..	141,285	71,281	212,566
Light trucks (2 tons and under laden) .. ..	18,442	9,352	27,794
Heavy trucks (over 2 tons laden) .. ..	14,659	6,734	21,393
Passenger trucks .. ..	1,064	588	1,652
Omnibuses .. ..	492	199	691
Taxis .. ..	1,186	509	1,695
Service cars .. ..	393	266	659
Rental and private-hire cars .. ..	486	296	782
Dealers' cars .. ..	1,367	586	1,953
Local-authority road vehicles .. ..	2,212	2,438	4,650
Government vehicles .. ..	2,431	1,061	3,492
Trailers .. ..	5,319	4,026	9,345
Dealers' motor-cycles .. ..	96	54	150
Motor-cycles .. ..	13,335	7,774	21,109
Totals .. ..	202,767	105,164	307,931

The increase in the number of licensed motor-vehicles (all groups) compared with those at the 31st March, 1938, was 27,604, or 9·84 per cent.

In this connection it is interesting to compare the ratio of population per vehicle for New Zealand with the latest authentic figures available for overseas countries:—

	Per Cent.
U.S.A., December, 1937 .. ..	4·16
New Zealand, March, 1939 .. ..	5·23
Australia, June, 1937 .. ..	8·60
Great Britain, September, 1937 .. ..	16·20

Compared with last year the motor-cycles licensed decreased by 1,771, or 7·74 per cent., whilst motor-cars increased by 22,012, or 11·55 per cent.; the increase in trucks licensed was 2,167, or 4·61 per cent., whilst "Other Vehicles" licensed advanced by 5,070, or 28·33 per cent.

The substantial rise under this last heading is partly due to a large increase in the number of trailers.

Table No. 1 of the Appendix shows the number of motor-vehicles licensed as at 31st December, 1938, grouped according to highway districts.

The number of motor-vehicles licensed as at 31st March, 1939, classified according to postal districts, are set out in Table 2.

Table No. 3 of the Appendix sets out the number of motor-vehicles licensed each year since 1925. Since the system of registration was instituted there have been several changes, both in definition and in method of classification. An additional complication has been introduced by the fact that whereas since 1932 the number of vehicles "licensed" has been recorded, previously the number of vehicles "registered" was recorded. It is necessary to appreciate the distinction between these terms. When a new vehicle arrives it is registered by the owner and simultaneously is licensed for one year or lesser period. If the license is not renewed the next year the vehicle is classified as a "dormant registration." After a registration has been dormant for two years it is cancelled. If the vehicle is subsequently relicensed it is registered afresh as a new vehicle. Prior to 1932 the number of vehicles licensed was obtained by subtracting from the total registrations the number of dormant registrations. This method was not sound, however, because the date upon which the dormant registrations were totalled did not coincide with that on which the total registrations were ascertained.

It has been found necessary to endeavour to arrive at a common basis whereby the growth of the motor-vehicle in New Zealand might be measured from year to year. Table No. 3 shows the result of this effort, but attention is directed to the fact that, owing to the differences of definition and classification, the figures other than the yearly totals cannot be taken as strictly comparable. This table shows the figures as at 31st December each year. The figures for trailers have been excluded from the totals. The chief feature of the table is the steady growth in the numbers of motor-vehicles in this country, interrupted temporarily during the depression years.

The number of "dormant" registrations—i.e., vehicles which although registered had not been licensed for the current year—as at 31st March, 1939, were as under:—

Type of Vehicle.	1936-37 Register.	1937-38 Register.	Total.
Cars .. .. .	5,735	6,577	12,312
Light trucks (2 tons and under laden) .. .	4,145	3,102	7,247
Heavy trucks (over 2 tons laden) .. .	1,615	1,571	3,186
Service cars .. .. .	44	42	86
Taxis .. .. .	19	23	42
Rental and private-hire cars .. .. .	20	18	38
Contract vehicles and passenger trucks .. .	53	35	88
Omnibuses .. .. .	19	38	57
Traction-engines .. .. .	68	58	126
Trailers .. .. .	721	1,271	1,992
Tractors .. .. .	200	200	400
Motor-cycles .. .. .	4,160	4,870	9,030
Other motor-vehicles .. .. .	57	95	152
Totals .. .. .	16,856	17,900	34,756

Section 10 of the Motor-vehicles Amendment Act, 1927, provides that after a registration has remained "dormant" for two complete years it is to be cancelled. The following sets out the 1935-36 registrations cancelled on 1st June, 1938, in accordance with this section:

Type of Vehicle.	Number.
Cars .. .. .	3,361
Light trucks .. .. .	2,656
Heavy trucks .. .. .	1,072
Service cars .. .. .	22
Taxis .. .. .	25
Passenger-trucks .. .. .	37
Rental and private-hire cars .. .. .	18
Motor-buses .. .. .	11
Traction-engines .. .. .	40
Trailers .. .. .	508
Tractors .. .. .	191
Motor-cycles .. .. .	3,096
Other vehicles .. .. .	18
Total .. .. .	11,058



## D. MOTOR-VEHICLE REGISTRATION PLATES.

The following classes of number-plates were assigned during the licensing year 1938-39 :

- (1) For private cars, plates *without initial letter* from 2001 onwards, the highest number manufactured being 222,500.
- (2) For "private-hire" and "rental" cars, plates without letter 1-2000, inclusive.
- (3) Special plates for issuance to cycles.
- (4) Plates with initial letter "D" (both car and cycle) for dealers' vehicles.
- (5) Plates with initial letter "E" for vehicles exempted from payment of annual license fees.
- (6) Plates with the prefix "Govt." for vehicles owned by Government Departments.
- (7) Plates with initial letter "H" for heavy trucks.
- (8) Plates with initial letter "L" for light trucks.
- (9) Plates with initial letter "P" for omnibuses.
- (10) Plates with initial letter "R" for trailers.
- (11) Plates with initial letter "S" for service cars.
- (12) Plates with initial letter "T" for taxis.
- (13) Plates with initial letter "V" for passenger-trucks and "contract" motor-vehicles.

## E. VEHICLES ACTUALLY ON THE ROAD.

The number of vehicles licensed on the register kept in accord with the provisions of the Motor-vehicles Act, 1924, may be taken as a reasonable indication of the number of vehicles actually on the road. The number of vehicles licensed have been estimated from month to month, and the averages for the years ending on the 31st March, 1934, to the 31st March, 1939, are given hereunder :

Class of Vehicle.	Averages.					
	1934.	1935.	1936.	1937.	1938.	1939.
	Number.	Number.	Number.	Number.	Number.	Number.
Cars .. .. .	117,867	124,204	135,220	152,819	172,899	193,733
Trucks, light, up to 2 tons laden ..	17,643	19,840	21,281	23,499	24,214	25,413
Trucks, heavy, over 2 tons laden ..	13,708	14,394	15,539	17,310	18,965	19,883
Omnibuses .. .. .	518	511	531	575	622	667
Taxis .. .. .	1,493	1,518	1,627	1,659	1,682	1,672
Rental cars .. .. .	131	215	333	474	601	703
Service cars .. .. .	965	735	670	656	648	626
Dealers' cars .. .. .	853	1,003	1,221	1,475	1,687	1,868
Local-body road vehicles .. .. .	1,147	1,198	1,430	1,762	2,276	3,439
Government vehicles .. .. .	1,378	1,444	1,546	1,806	2,374	3,118
Dealers' motor-cycles .. .. .	127	123	128	133	135	135
Motor-cycles .. .. .	21,113	21,063	20,602	20,631	19,947	18,627
Trailers .. .. .	2,400	2,107	2,894	3,796	5,119	6,758
Passenger-trucks .. .. .	*	628	795	977	1,190	1,457
Totals .. .. .	179,343	188,983	203,817	227,572	252,359	278,099

\* Included under other headings for 1933-34.

There has been an increase in the number of all classes of motor-vehicles on the road excepting taxis, motor-cycles, and service cars, which show a slight decline.

The following table shows the relative increase or decrease in the various classes of vehicles on the road from year to year for the period under review :

Class of Vehicle.	1934.	1935.	1936.	1937.	1938.	1939.
Cars .. .. .	100	105	115	130	147	164
Trucks- .. .. .						
Light .. .. .	100	112	121	133	137	141
Heavy .. .. .	100	105	113	126	138	145
Omnibuses .. .. .	100	99	102	111	120	129
Taxis .. .. .	100	102	109	111	113	112
Rental cars .. .. .	100	164	254	362	459	537
Service cars .. .. .	100	76	69	68	67	65
Dealers' cars .. .. .	100	117	143	173	198	219
Local-body road vehicles .. .. .	100	104	125	154	198	300
Government vehicles .. .. .	100	105	112	131	172	226
Dealers' motor-cycles .. .. .	100	97	101	105	106	106
Motor-cycles .. .. .	100	100	98	98	94	88
Trailers .. .. .	100	88	120	158	213	281
Passenger-trucks .. .. .	*	100	127	156	189	232
Totals .. .. .	100	105	114	127	141	155

\* Included under other headings for 1933-34.

## F. PETROL CONSUMPTION.

The following table shows a classification of the manner in which petrol was consumed in the Dominion during the last eleven calendar years :—

Calendar Year.					Estimated Consumption of Petrol.		
					By Motor-vehicles (i.e., Petrol on which all Duty was paid).	Other—i.e., Engines, Aeroplanes, &c. (Petrol on which Refunds of Duty were made).	Total
					Gallons.	Gallons.	Gallons.
1928	..	..	..	..	41,457,150	2,057,940*	43,515,090*
1929	..	..	..	..	56,575,840	3,650,040	60,225,880
1930	..	..	..	..	62,821,479	3,907,900	66,729,379
1931	..	..	..	..	55,202,983	5,286,000	60,488,983
1932	..	..	..	..	49,861,976	5,495,479	55,357,455
1933	..	..	..	..	51,293,572	5,400,000	56,693,572
1934	..	..	..	..	55,991,831	6,100,000	62,091,831
1935	..	..	..	..	62,807,535	6,483,600	69,291,135
1936	..	..	..	..	72,107,051	6,685,600	78,792,651
1937	..	..	..	..	82,110,905	7,339,000	89,449,905
1938	..	..	..	..	89,306,192	7,590,000	96,896,192

\* Excludes an unknown amount of petrol on which duty was not paid.

The total gallons are calculated from the quantity of motor-spirits on which petrol-tax was paid. A further tremendous increase in motor-vehicle petrol-consumption took place in 1938 as compared with 1937, the previous peak year, the figures showing an increase of 7,000,000 gallons.

Translated into terms of miles travelled by motor-vehicles, it is estimated that the 7,000,000-gallon increase in petrol-consumption represents over 100,000,000 more vehicle-miles than were run in the previous year, when it was estimated that motor-vehicles travelled approximately 1,500,000,000 miles.

## 3. ROADS.

## A. LIMITATION OF LOADS ON ROADS.

Not a great deal of change has taken place in the mileages of classified roads during the year. In most districts the roads have now been classified to carry the maximum loads possible while giving adequate protection to the road-surfaces. The present position in regard to the classification of all rural roads is as follows :—

## (1) CLASSIFICATION OF ALL RURAL ROADS AT 31ST MARCH, 1939.

					Total Formed Roads.	Class Three.	Class Four.	Class Five.	Total Classification.
					Miles.	Miles.	Miles.	Miles.	Miles.
North Island	..	..	..	..	26,539	5,561	8,675	2,464	16,700
South Island	..	..	..	..	21,898	6,420	2,242	275	8,937
Totals	..	..	..	..	48,437	11,981	10,917	2,739	25,637

## (2) CLASSIFICATION OF MAIN HIGHWAYS (RURAL SECTIONS) AT 31ST MARCH, 1939.

					Main Highways.	Class Three.	Class Four.	Class Five.	Total Classification.
					Miles.	Miles.	Miles.	Miles.	Miles.
North Island	..	..	..	..	6,496	3,011	3,110	119	6,240
South Island	..	..	..	..	5,306	4,385	157	32	4,574
Totals	..	..	..	..	11,802	7,396	3,267	151	10,814

In many districts the main highways only are classified, thus virtually restricting loads throughout the whole area. Owing to several major alterations in certain main-highway routes during the year the length of classified highways shows a slight reduction pending the classification of the newly declared highways. However, less than 9 per cent. of the rural-highway mileage now remains unclassified.

## (3) CLASSIFICATION OF STATE HIGHWAYS (RURAL SECTIONS) AT 31ST MARCH, 1939.

			State Highways.	Class Three.	Class Four.	Class Five.	Total Classification.
			Miles.	Miles.	Miles.	Miles.	Miles.
North Island	..	..	2,112	1,215	869	..	2,084
South Island	..	..	1,648	1,521	..	..	1,521
Totals	..	..	3,760	2,736	869	..	3,605

In the North Island 57 per cent. of the State highway mileage is classified in Class Three and 41 per cent. in Class Four. The sections which remain in Class Four lie in the North Auckland Peninsula and in the central part of the Island where the foundations generally are weak and where there is a scarcity of good-quality surfacing-material.

However, several sections of the State highway system which were formerly classified in Class Four have been reclassified during the year in Class Three following the improvement of the standard of construction. As soon as a length of Class Four highway is reconstructed to a higher standard steps are taken to raise the classification accordingly. Generally in rural districts a maximum classification of Class Three will permit of economic transport, and at the same time provide an adequate degree of protection to the road surfaces. This class allows for gross loads up to 7 tons or, in the case of multi-axled vehicles, a maximum weight per axle of  $4\frac{1}{2}$  tons.

In the South Island 92 per cent. of the total length of State highways is classified in Class Three, and none of the system is classified in a lower class.

In general the unclassified lengths on the State highway system are adjacent to the larger industrial centres where the surfaces have been constructed to a higher standard than that which is usually provided on rural highways.

## B. TRAFFIC CENSUS.

## (1) INTRODUCTORY.

The second national census of traffic using the main-highway system was conducted by the Main Highways Board during 1937-38. A previous census was taken in 1934-35, when the nature and volume of traffic was recorded for one week during the winter and a further week in the summer. In the first census some 370 tally stations were selected, and during the last census these same stations were adhered to as far as possible, but the number was increased to 444 to obtain records at certain important points where the traffic was not tallied previously. The census again extended over a period of one week in the winter and another in the summer at dates corresponding to those selected originally. The total mileage of main highways at the time of the first census was 11,176, and there was, on an average, one tally station for thirty miles. In 1937-38 the mileage of the system had increased to 11,710, and the stations were spaced at twenty-six-mile-average intervals. In practice the great proportion of the stations were allotted to the arterial highways, and in many instances no tally was taken on the less-important highways. On the State highway system, comprising 3,761 miles of the total of 11,710, there were 254 stations, or one every fifteen miles. At 91 representative stations the tallies were taken continuously over the whole twenty-four hours each day for the period of seven days. At the majority of stations, however, the daily period extended from 6 a.m. to 10 p.m.

While the traffic census over the main-highway system is of undoubted value, particularly to the Main Highways Board in determining the relative merits and economics of highway improvement proposals, it relates only to 22 per cent. of the road mileage of the Dominion, and is therefore very incomplete so far as a national road traffic census is concerned. However, in the absence of a comprehensive census of traffic over the whole of the national system of roads and streets, it has been found possible to determine approximately the proportions of traffic carried on the other divisions of the roading system by reference to the national petrol-consumption figures and to the results of traffic surveys carried out in a number of comparable States in the United States of America. Table A shows that while the main-highway system represents only 22 per cent. of the road mileage of the Dominion it carries about 60 per cent. of the total traffic. The urban roads constitute 8 per cent. of the road mileage and carry about 30 per cent. of the traffic. The rural roads other than main highways provide a considerable mileage—70 per cent. of the total—but are estimated to carry only 10 per cent. of the total traffic. While these figures are of necessity only estimates, they are nevertheless based upon sound data and experience elsewhere, and are probably fairly near the mark.

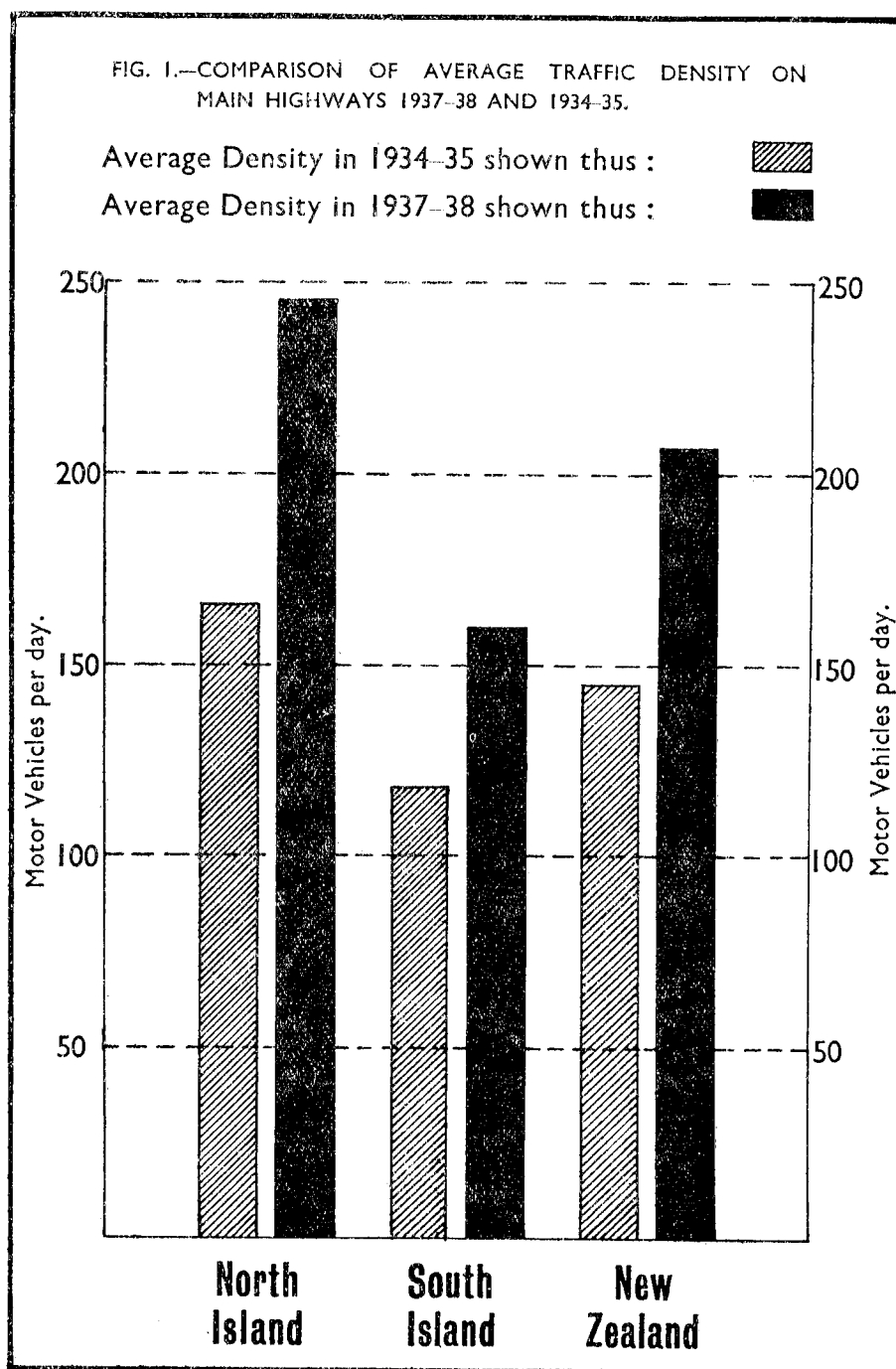
TABLE A.—THE NATIONAL ROADING SYSTEM: MILEAGE AND TRAFFIC CARRIED ON URBAN ROADS, MAIN HIGHWAYS, AND OTHER RURAL ROADS.

Classification of Road System.				Mileage of System.	Proportion of Total Mileage.	Estimated Amount of Traffic carried.	Estimated Proportion of Total Traffic carried.	Estimated Average Traffic Density.
				Miles.	Per Cent.	Millions of Vehicle- miles per Annum.	Per Cent.	Motor- vehicles per Day.
Urban roads	..	..	..	4,201	8	442.6	30	289
Main highways	..	..	..	11,710	22	885.3	60	207
Other rural roads	..	..	..	36,699	70	147.5	10	11
All roads	..	..	..	52,610	100	1,475.4	100	77

## (2) VOLUME OF MOTOR TRAFFIC AND AVERAGE DENSITY ON THE MAIN-HIGHWAY SYSTEM.

The total annual vehicle-mileage on the main-highway system in 1937-38 was 885,293,630, as compared with 593,707,175 vehicle-miles in 1934-35, an increase of practically 50 per cent. At the same time the mileage of the main-highway system has been increased from 11,176 miles to 11,710, or by 4.8 per cent. of the former length.

The average traffic density over the whole of the main-highway system was 207 motor-vehicles per day in 1937-38, as compared with 145.5 per day in 1934-35, thus indicating an average increase of 42 per cent.



The North Island main-highway system comprises 55 per cent. of the total main-highway system of the Dominion and carried 65 per cent. of the total main-highway traffic. The average traffic density in the North Island was 245 motor-vehicles per day, as compared with 167 motor-vehicles per day in 1934-35. In the South Island the increase in traffic density was from 119 motor-vehicles per day in 1934-35 to 160 per day in 1937-38. The comparisons between the traffic densities on the various highway systems at each census are shown graphically by Fig. 1.

TABLE B. COMPARING THE HIGHWAY MILEAGE, MOTOR-VEHICLE USE, AND TRAFFIC DENSITY ON THE NORTH AND SOUTH ISLAND AND NEW ZEALAND MAIN HIGHWAY SYSTEMS IN 1937-38 AND 1934-35.

Main Highway System.	Main-highway Mileage.				Annual Vehicle-mileage.				Average Traffic Density.		
	Miles.		Percentage of Total Mileage.		Vehicle-miles.		Percentage of Total Mileage.		Motor-vehicles per Day.		Percentage Increase in Density.
	1937-38.	1934-35.	1937-38.	1934-35.	1937-38.	1934-35.	1937-38.	1934-35.	1937-38.	1934-35.	
North Island ..	6,478	6,206	55·32	55·53	578,906,425	377,439,930	65·39	63·57	244·8	166·6	46·93
South Island ..	5,232	4,970	44·68	44·47	306,387,205	216,267,215	34·61	36·43	160·4	119·2	34·6
New Zealand	11,710	11,176	100·00	100·00	885,293,630	593,707,175	100·00	100·00	207·1	145·5	42·3

(3) COMPARISONS BETWEEN HIGHWAY DISTRICTS IN RESPECT OF UTILIZATION OF THE MAIN HIGHWAYS.

The highway districts where the volume of traffic is most dense are the Wellington West District, with an average density of 435 motor-vehicles per day, and the Auckland South District with 378 vehicles per day. The districts where the main highway traffic is most sparse are the King-country Highway District with an average traffic density of 112 motor-vehicles per day (74 in 1934-35) and the West Coast District (South Island), where the density is 116 per day as compared with 81 in 1934-35.

The district showing the greatest increase in traffic was the Canterbury North Highway District. In this area the average density of traffic on the main highways in 1934-35 was 72·1 motor-vehicles per day, while in 1937-38 the average reached 125·7 vehicles daily. Auckland South, Wellington West, and King-country were other highway districts where large increases were experienced. The district recording the least increase in traffic was the Gisborne Highway District, covering the whole of the Poverty Bay area and extending as far south as Wairoa. Here the traffic density averaged 133 vehicles per day in 1934-35 and 144·3 in 1937-38, the increase being only 8½ per cent.

TABLE C.—MAIN-HIGHWAY MILEAGE, VEHICLE-MILEAGE, AND TRAFFIC DENSITY : COMPARISON BETWEEN 1937-38 AND 1934-35.

Highway District.		Main-highway Mileage.			Daily Vehicle-miles on Main-highway System.			Average Traffic Density.		
No.	Name.	1937-38. Miles.	1934-35. Miles.	Percent- age Increase.	1937-38. Vehicle- miles.	1934-35. Vehicle- miles.	Percent- age Increase.	1937-38.	1934-35.	Percent- age Increase.
1	Auckland North ..	949	930½	1·9	152,620	111,961	36·3	160·8	120·4	33·6
2	Auckland South ..	1,203½	1,022	17·7	455,398	246,062	85·1	378·4	240·8	57·1
3	Tauranga ..	704½	680½	3·5	151,312	99,896	51·5	214·9	146·7	46·5
4	Gisborne ..	392½	362½	8·2	56,652	48,252	17·4	144·3	133·0	8·5
5	Napier ..	714½	702	1·8	174,436	128,923	35·3	244·1	183·7	32·9
6	King-country ..	594½	652½	8·9*	66,296	48,241	37·4	111·6	73·9	51·0
7	Taranaki ..	449	442½	1·5	132,456	93,837	41·2	295·0	212·1	39·1
8	Wanganui ..	509½	483½	5·4	111,892	73,320	52·6	219·8	151·7	44·9
9	Wellington West ..	477	455	4·8	207,674	126,756	63·8	435·4	278·6	56·3
10	Wellington East ..	484½	474½	2·1	77,309	56,834	36·0	159·7	119·8	33·3
11	Nelson ..	650½	610½	1·5	88,329	61,160	44·4	135·8	95·5	42·2
12	West Coast ..	528	519½	1·6	61,529	41,932	46·7	116·5	80·7	44·4
13	Canterbury North ..	330½	330½	0·2	41,572	23,819	74·5	125·7	72·1	74·3
14	Canterbury Central ..	728½	668	9·1	169,891	112,373	51·2	233·2	168·2	38·6
15	Canterbury South ..	786½	737½	6·6	135,882	103,036	31·9	172·8	139·6	23·8
16	Otago Central ..	820½	749½	9·4	110,019	72,931	50·9	134·0	97·3	37·7
17	Otago South ..	598½	465½	9·3	100,646	82,398	22·1	197·8	177·1	11·7
18	Southland ..	878½	859	2·3	131,549	94,864	38·7	149·7	110·4	35·6
	New Zealand ..	11,710	11,176	4·8	2,425,462	1,626,595	49·1	207·1	145·5	42·3

\* The decrease in this case is occasioned by a change in the boundary between the Nos. 2 and 6 highway districts.

(4) DISTRIBUTION OF TRAFFIC DENSITY ON THE MAIN-HIGHWAY SYSTEM.

Table D classifies the main highways according to traffic density. Thus 5,177 miles, or 44 per cent. of the total mileage, carried less than 100 vehicles per day ; 9,578 miles, or 82 per cent., carried less than 300 vehicles per day ; and 10,646 miles carried less than 500 per day. Only 195 miles, or less than 2 per cent., carried over 1,000 vehicles daily, and 7 miles carried more than 2,500.

In 1934-35 there were 6,037 miles, or 54 per cent., carrying less than 100 vehicles per day ; 9,821 miles, or 88 per cent., carrying less than 300 ; and 10,654, or 95 per cent., carried less than 500 per day. There were only 75½ miles carrying more than 1,000 vehicles per day, and only 1¼ miles with a density in excess of 2,500.

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 <sup>1</sup> <sub>4</sub>	1,356	1,500 <sup>3</sup> <sub>4</sub>	980 <sup>1</sup> <sub>4</sub>	467 <sup>1</sup> <sub>2</sub>	320 <sup>1</sup> <sub>4</sub>	173 <sup>3</sup> <sub>4</sub>	188 <sup>1</sup> <sub>4</sub>	231 <sup>1</sup> <sub>2</sub>	85 <sup>1</sup> <sub>2</sub>	55	3 <sup>1</sup> <sub>4</sub>	..	4 <sup>1</sup> <sub>2</sub>	1 <sup>1</sup> <sub>4</sub>	6,478
South Island ..	1,440 <sup>1</sup> <sub>4</sub>	1,270 <sup>3</sup> <sub>4</sub>	1,346 <sup>1</sup> <sub>4</sub>	573 <sup>1</sup> <sub>4</sub>	110	170 <sup>1</sup> <sub>2</sub>	100 <sup>1</sup> <sub>4</sub>	146	29	26 <sup>1</sup> <sub>2</sub>	8 <sup>1</sup> <sub>4</sub>	9 <sup>1</sup> <sub>4</sub>	3 <sup>1</sup> <sub>4</sub>	4 <sup>1</sup> <sub>2</sub>	..	5,232
New Zealand ..	2,550 <sup>1</sup> <sub>2</sub>	2,626 <sup>3</sup> <sub>4</sub>	2,847	1,553 <sup>1</sup> <sub>2</sub>	577 <sup>1</sup> <sub>2</sub>	490 <sup>3</sup> <sub>4</sub>	274	334 <sup>1</sup> <sub>4</sub>	260 <sup>1</sup> <sub>2</sub>	112	63 <sup>1</sup> <sub>4</sub>	13	3 <sup>1</sup> <sub>4</sub>	5	1 <sup>1</sup> <sub>4</sub>	11,710
1934-35 census—																
New Zealand ..	2,820 <sup>1</sup> <sub>4</sub>	3,217	2,892 <sup>1</sup> <sub>2</sub>	891 <sup>1</sup> <sub>4</sub>	580	253 <sup>1</sup> <sub>4</sub>	238 <sup>3</sup> <sub>4</sub>	149 <sup>1</sup> <sub>2</sub>	58 <sup>1</sup> <sub>4</sub>	58 <sup>1</sup> <sub>2</sub>	15	1 <sup>1</sup> <sub>2</sub>	1 <sup>1</sup> <sub>4</sub>	..	..	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 <sup>3</sup> <sub>4</sub>	339,122,595	216,131,130	439·8	280·7	56·7
South Island .. ..	1,648 <sup>3</sup> <sub>4</sub>	165,004,100	107,675,000	274·2	178·9	53·3
New Zealand .. ..	3,761 <sup>1</sup> <sub>2</sub>	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.

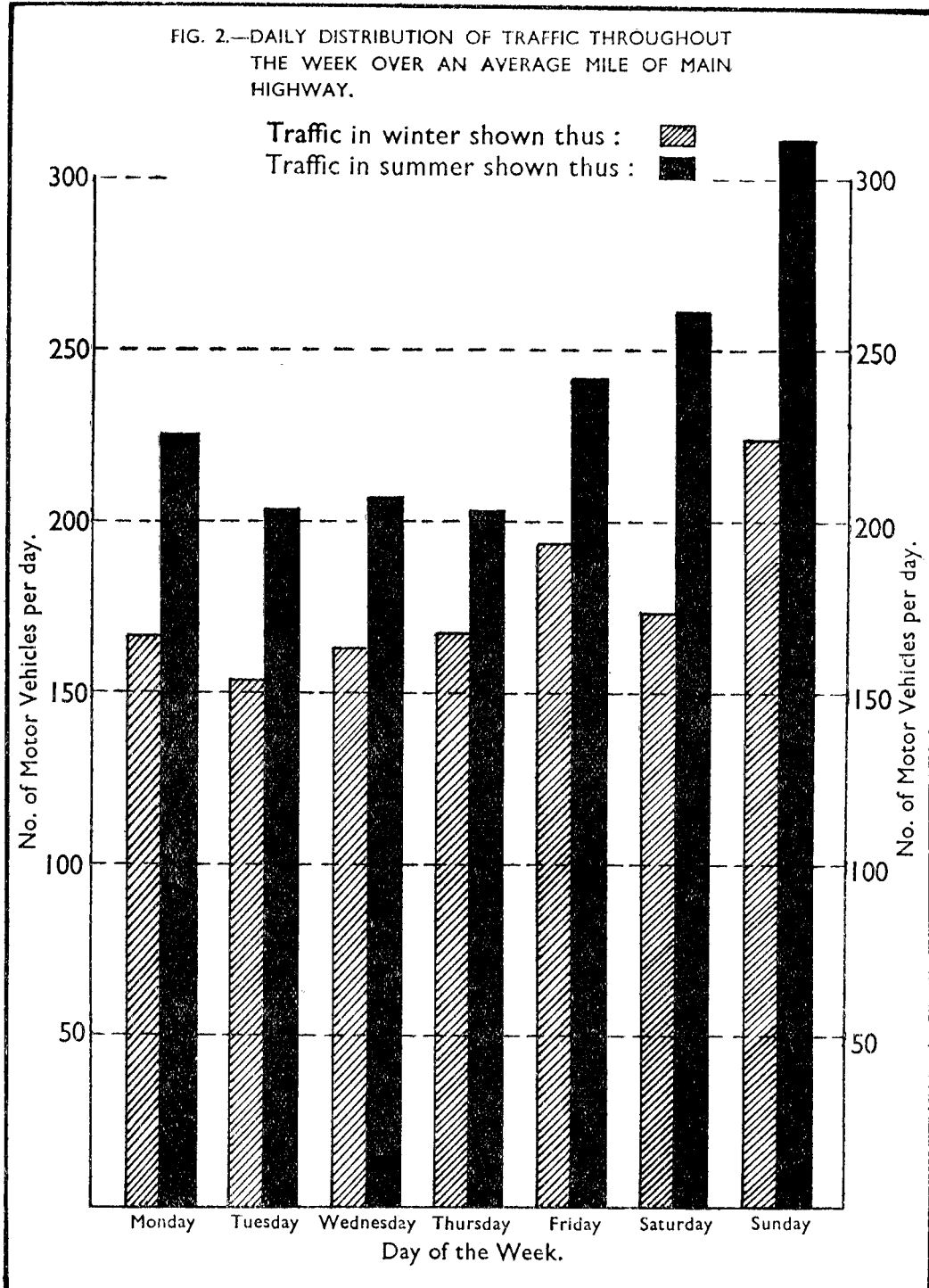


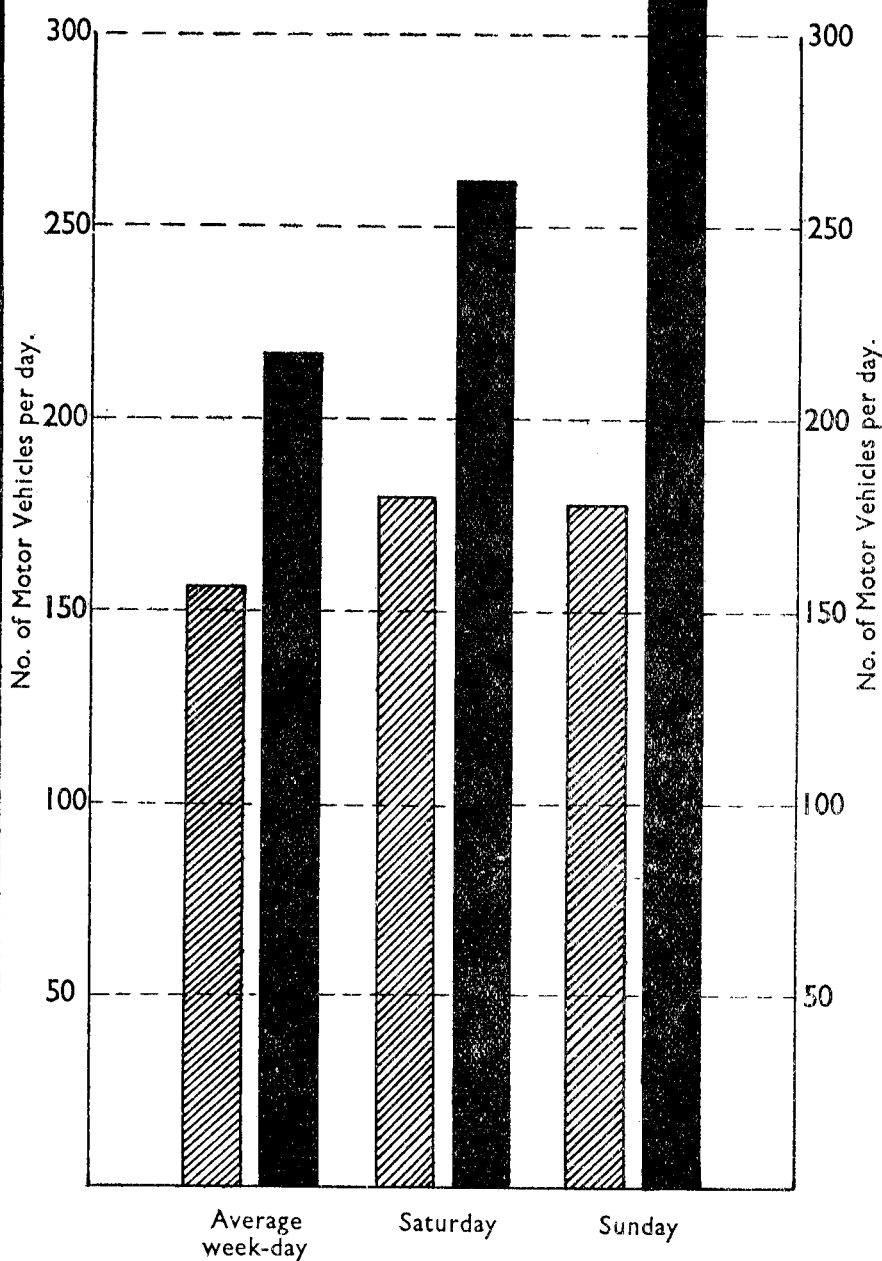
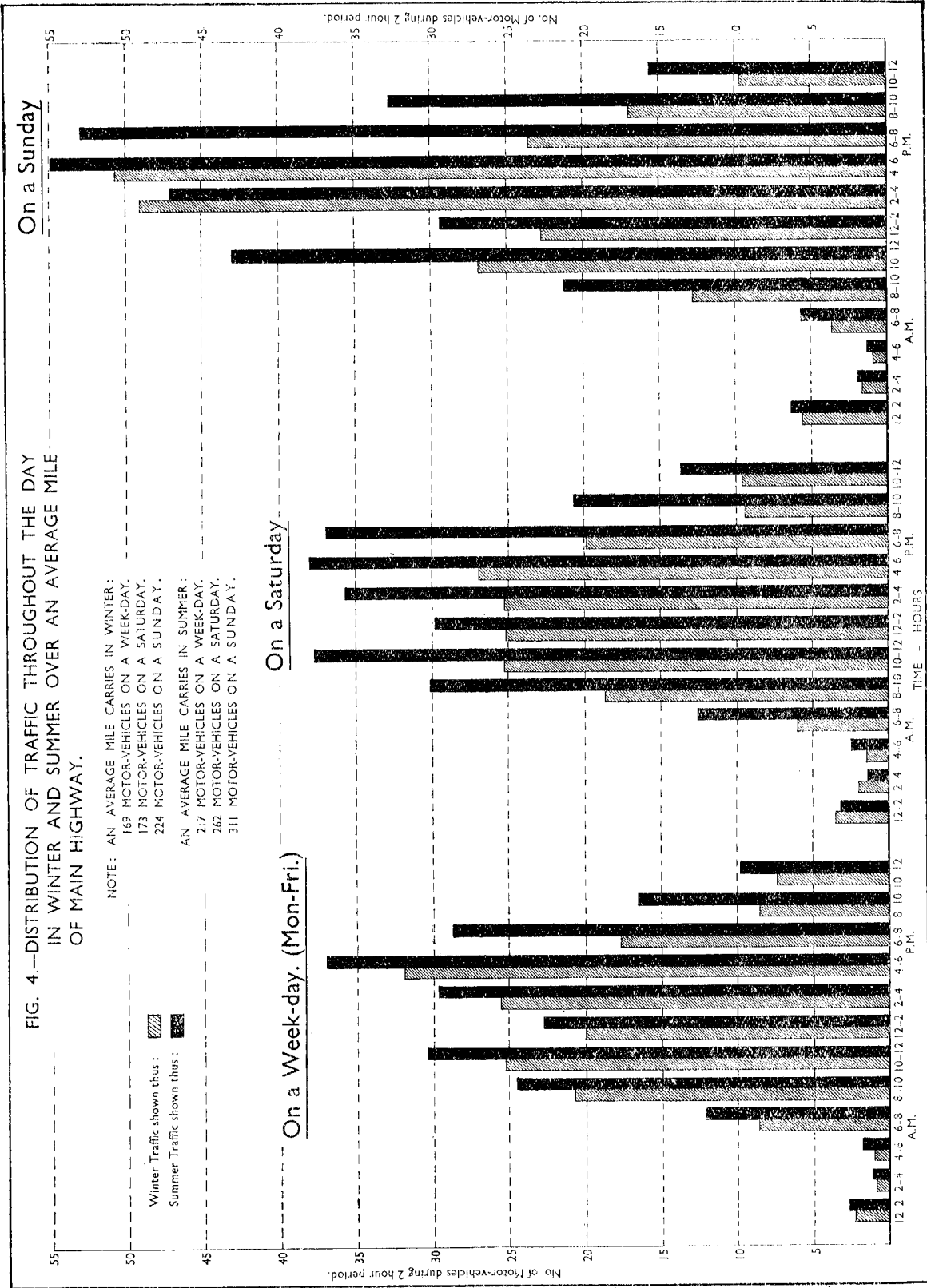


FIG. 3.—COMPARISON OF TRAFFIC DENSITY ON MAIN HIGHWAYS ON WEEK DAYS, SATURDAYS AND SUNDAYS DURING JAN. 1938 AND JAN. 1935.

Average Density in Jan. 1935 shown thus :   
 Average Density in Jan. 1938 shown thus : 







(7) ANALYSIS OF TRAFFIC, BY TYPE OF VEHICLE.

A comparison of the use of the main highways by different types of motor-vehicles in 1937-38 and in 1934-35 is afforded by Table F.

TABLE F.—VEHICLE-MILEAGE IN 1937-38 AND 1934-35, ACCORDING TO TYPE OF VEHICLE.

Type of Vehicle.	Annual Vehicle-mileage.		Increase.		Average Number of Vehicles on the Road.		Increase.	
	1937-38.	1934-35.	Vehicle-miles.	Percentage	1937-38.	1934-35.	Numbers.	Percentage
Motor-cars .. ..	651,237,380	101,251,355	249,983,025	62·3	179,194	128,261	50,933	39·7
Trade motors—								
Under 2 tons .. ..	70,359,225	52,676,800	17,682,425	33·6	24,867	20,201	4,666	22·8
2 tons to 4½ tons .. ..	35,425,075	40,950,445	5,525,370*	13·5*	21,887	15,982	5,905	36·9
4½ tons to 6½ tons .. ..	57,057,530	35,184,175	21,873,355	62·1				
Over 6½ tons .. ..	11,446,035	6,794,110	4,651,925	68·5				
Total, trade motors .. ..	174,287,865	135,605,530	38,682,335	28·5	46,694	36,183	10,511	29·1
Public passenger-vehicles—								
Service cars .. ..	12,619,510	12,631,190	11,680*	0·1*	648	511	137	26·9
Omnibuses .. ..	6,126,525	4,652,290	1,474,235	31·7	622	735	113*	15·4*
Total, public passenger-vehicles .. ..	18,746,035	17,283,480	1,462,555	8·4	1,270	1,246	24	1·9
Motor-cycles .. ..	31,871,070	33,686,215	1,815,145*	5·4*	20,082	21,186	1,104*	5·2*
Trailers .. ..	7,146,335	4,174,505	2,971,830	71·2	5,119	2,107	3,012	142·9
Miscellaneous .. ..	2,004,945	1,703,090	301,855	17·7	..	..	..	..
All motor-vehicles .. ..	885,293,630	593,707,175	291,586,455	49·1	252,359	188,983	63,376	33·5

\* Decrease.

This table shows that the great bulk of the increase in the utilization of the highway system by motor-vehicles is due to the increased use of the private car. The use of this type of vehicle on the main highways increased by 62 per cent., although the number on the road increased by only 40 per cent. The use of trade motors of a gross weight in excess of 4½ tons has also increased very considerably, while the use of the lighter truck, from 2 tons to 4½ tons gross weight, has decreased. The use of motor-cycles also decreased by 5 per cent. during the period, which was almost in proportion to the reduction in numbers of motor-cycles. The use of trailers increased by over 70 per cent., but the number of trailers on the road increased 140 per cent.

Table G shows the extent to which the character of traffic on the main-highway system has changed during the three-year period under review. In 1934-35 the private car provided 67 per cent. of the total use of the highways. In 1937-38, 74 per cent. of the total vehicle-mileage was performed by the private car.

TABLE G.—SHOWING PROPORTION OF HIGHWAY USED BY DIFFERENT TYPES OF VEHICLES IN 1937-38 AND 1934-35.

Type of Vehicle.	Proportion of Vehicle-mileage.					
	North Island.		South Island.		New Zealand.	
	1937-38.	1934-35.	1937-38.	1934-35.	1937-38.	1934-35.
Motor-cars .. ..	73·79	67·57	73·13	67·62	73·56	67·59
Trade motors—						
Under 2 tons .. ..	7·62	8·45	8·56	9·61	7·95	8·87
2 tons to 4½ tons .. ..	4·43	7·72	3·20	5·46	4·00	6·90
4½ tons to 6½ tons .. ..	6·82	6·13	5·74	5·57	6·45	5·93
Over 6½ tons .. ..	1·18	1·08	1·51	1·26	1·29	1·14
Total, trade motors .. ..	20·05	23·38	19·01	21·90	19·69	22·84
Public passenger-vehicles—						
Service cars .. ..	1·45	2·15	1·38	2·09	1·43	2·13
Omnibuses .. ..	0·63	0·75	0·81	0·84	0·69	0·78
Total, public passenger-vehicles .. ..	2·08	2·90	2·19	2·93	2·12	2·91
Motor-cycles .. ..	3·22	5·34	4·32	6·26	3·60	5·67
Trailers .. ..	0·68	0·56	1·04	0·95	0·81	0·70
Miscellaneous .. ..	0·18	0·25	0·31	0·34	0·22	0·29
All motor-vehicles .. ..	100·00	100·00	100·00	100·00	100·00	100·00

## C. ROAD FINANCE.

## (1) DOMINION'S ROAD BILL, 1934-38.

The Department has investigated the numerous statistical data available from official sources and has analysed and classified them in order to show approximately what the roads, streets, and bridges are costing under the headings of construction, maintenance, and loan charges.

The classification of the roads into main highways, urban roads and streets, and other roads has been carried out, as each class of road or street has differing problems attached to it. This classification has involved a certain amount of estimation, as also have certain aspects of the figures for the whole road bill. Any estimations have been made on a conservative basis, and the figures are sufficiently close to actual fact to form a basis for reliable broad conclusions.

Attention is directed to the fact that certain adjustments have been made to the figures published in reports prior to 1937, while in the 1937-38 figures it has been necessary to estimate the figures for interest charges on local-body loans for roading purposes.

The following table shows the expenditure under the various headings for the five years ended 31st March, 1938 :—

	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Maintenance—					
Main highways .. .. .	954,656	1,501,539	1,632,453	1,314,694	1,482,531
Urban roads and streets .. .. .	397,371	392,032	406,775	424,201	463,533
Other roads .. .. .	718,943	955,994	1,098,366	1,038,204	1,164,972
Total .. .. .	2,070,970	2,849,565	3,137,594	2,777,099	3,111,036
Construction—					
Main highways .. .. .	286,709	428,072	624,943	1,622,982	2,565,822
Urban roads and streets .. .. .	1,104,047	944,235	903,918	938,692	982,008
Other roads .. .. .	1,240,920	1,172,529	1,102,730	1,443,185	1,605,648
Total .. .. .	2,631,676	2,544,836	2,631,591	4,004,859	5,153,478
Interest and sinking-fund charges—					
Main highways .. .. .	632,846	612,129	605,403	605,925	642,695
Urban roads and streets .. .. .	585,900	554,400	580,979	573,423	580,773
Other roads .. .. .	1,136,070	1,136,515	1,122,408	1,047,394	1,135,116
Total .. .. .	2,354,816	2,303,044	2,308,790	2,226,742	2,358,584
Total annual road bill—					
Main highways .. .. .	1,874,211	2,541,740	2,862,799	3,543,601	4,691,018
Urban roads and streets .. .. .	2,087,318	1,890,667	1,891,672	1,936,316	2,026,314
Other roads .. .. .	3,095,933	3,265,038	3,323,504	3,528,783	3,905,736
Total .. .. .	7,057,462	7,697,445	8,077,975	9,008,700	10,623,098

The principal points emerging from the figures for the years ended 31st March, 1937, have been commented upon in previous annual reports. The figures for 1937-38, as compared with those of the previous year, are commented on below :—

## MAINTENANCE.

(a) *Main Highways*.—Expenditure under this item shows an increase largely due to an increase in the moneys spent by the Main Highways Board under this heading. The figures for 1937-38 are approximately £170,000 in advance of those for the previous year.

(b) *Other Roads*.—Here the increase in maintenance charges is £126,000 on 1936-37. This is accounted for by a large increase in the moneys spent by counties out of ordinary revenue.

(c) *Urban Roads*.—This item has increased by £39,000 from the previous year's figures. This is accounted for by the increased expenditure by Boroughs on road maintenance.

## CONSTRUCTION.

(a) *Main Highways.* Main Highways Board expenditure on construction and renewals of main highways has increased by £817,000, which accounts for the majority of the increase of £940,000 in this item for 1937-38.

(b) *Other Roads.* An increase in expenditure from the Public Works Fund of £268,000 and a decrease in county expenditure of £130,000 largely accounts for the advance in this item of £162,000.

## TOTAL ROAD BILL.

The following table, showing the percentages of the total expenditure spent on maintenance, construction, and interest and loan charges, is of interest:—

—				Maintenance.	Construction.	Interest and Loan Charges.
				Per Cent.	Per Cent.	Per Cent.
1933-34	..	..	..	29·3	37·3	33·4
1934-35	..	..	..	37·0	33·1	29·9
1935-36	..	..	..	38·8	32·6	28·6
1936-37	..	..	..	30·8	44·5	24·7
1937-38	..	..	..	29·5	48·2	22·3

## SOURCES OF MONEY EXPENDED ON ROAD BILL, 1933-34 TO 1937-38.

The Department has also analysed the expenditure on roads during the five years ended 31st March, 1938, in order to ascertain the sources from which the money expended has been derived.

The following table shows, under five main headings, the sources of revenue expended on (a) main highways, (b) urban roads, (c) other roads, and (d) all types of roads:—

—				1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
				£	£	£	£	£
Main highways	..	..	..	237,469	360,118	549,546	892,274	1,708,635
Loan	..	..	..	431,262	471,851	502,408	517,507	448,949
Local rates	..	..	..	89,612	280,751	45,638	5,662	97,864
Unemployment taxation	..	..	..	157,257	151,229	157,403	169,239	213,299
General taxation	..	..	..	958,611	1,277,791	1,607,804	1,958,919	2,222,301
Motor-taxation	..	..	..					
Total	..	..	..	1,874,211	2,541,740	2,862,799	3,543,601	4,691,048
Urban roads—								
Loan	..	..	..	70,291	71,307	118,745	199,783	203,827
Local rates	..	..	..	1,153,032	1,072,108	1,080,048	1,059,920	1,097,237
Unemployment taxation	..	..	..	616,278	475,306	384,050	330,156	336,140
General taxation	..	..	..					
Motor-taxation	..	..	..	247,717	271,946	308,829	346,457	389,110
Total	..	..	..	2,087,318	1,890,667	1,891,672	1,936,316	2,026,314
Other roads—								
Loan	..	..	..	381,090	398,371	466,152	939,714	1,169,128
Local rates	..	..	..	734,844	781,010	863,458	916,181	1,027,709
Unemployment taxation	..	..	..	797,086	714,887	580,000	357,220	276,695
General taxation	..	..	..	971,955	985,081	1,010,496	1,017,082	1,101,369
Motor-taxation	..	..	..	210,958	385,689	403,398	298,586	330,835
Total	..	..	..	3,095,933	3,265,038	3,323,504	3,528,783	3,905,736
All roads—								
Loan	..	..	..	688,850	829,796	1,134,443	2,031,771	3,081,590
Local rates	..	..	..	2,319,138	2,324,969	2,445,914	2,493,608	2,573,895
Unemployment taxation	..	..	..	1,502,976	1,470,944	1,009,688	693,038	710,699
General taxation	..	..	..	1,129,212	1,136,310	1,167,899	1,186,321	1,314,668
Motor-taxation	..	..	..	1,417,286	1,935,426	2,320,031	2,603,962	2,942,246
Total	..	..	..	7,057,462	7,697,445	8,077,975	9,008,700	10,623,098

The principal points emerging from the 1937-38 figures as compared with those for the previous year are as follows :—

#### LOAN-MONEYS.

This item shows a large increase of £1,050,000 over the previous year's figures and now represents 29 per cent. of the total money expended. For 1936-37 this figure represented 22·5 per cent. of the total, while in 1930-31 it represented 30 per cent.

#### LOCAL RATES.

The increase in expenditure under this heading is only £80,000, the item now representing 24·2 per cent. of the total expenditure. In 1936-37 the proportion of the total taken by this item was 27·7 per cent.

#### EMPLOYMENT TAXATION.

The expenditure under this heading has been maintained at approximately the 1936-37 figure, and represents 6·7 of the total road bill.

#### GENERAL TAXATION.

This item has advanced by £128,000 and comprises 12·4 per cent. of the total, against 13·2 per cent. in 1936-37 and 14·5 per cent. in 1935-36.

#### MOTOR-TAXATION.

Next to loan-moneys this item is the chief source of moneys for expenditure on roads, some £339,000 more having been spent in the year under review than in the previous year. The proportion of expenditure from this source represents 27·7 per cent., against 28·9 per cent. in the previous year.

#### GENERAL.

The following table indicates the approximate percentages of the various sources of revenue comprised in the total expenditure on roads during the five years ended 31st March, 1938 :—

Item.	1933-34.	1934-35.	1935-36	1936-37.	1937-38.
	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Loan .. .. .	9·8	10·8	14·0	22·5	29·0
Local rates .. .. .	32·9	30·2	30·3	27·7	24·2
Unemployment taxation .. .. .	21·3	19·1	12·5	7·7	6·7
General taxation .. .. .	16·0	14·8	14·5	13·2	12·4
Motor-taxation .. .. .	20·0	25·1	28·7	28·9	27·7
Total .. .. .	100·0	100·0	100·0	100·0	100·0

#### (2) ANNUAL CHARGES PER MILE ON ROADS, STREETS, ETC., 1934-38.

The following table shows the annual expenditure for the five years ended 31st March, 1938, on the various classes of roads, &c., computed per mile of road and/or street :

Class of Road.	Year ended 31st March,	Length of Formed Roads.	Annual Charges per Mile of Road.		
			Maintenance.	Interest and Loan Charges.	Total.
		Miles.	£	£	£
Main highways .. .. .	1934	10,975	87	58	145
	1935	11,176	134	55	189
	1936	11,649	140	52	192
	1937	11,684	113	52	165
	1938	11,728	126	55	181
Urban roads and streets .. .. .	1934	4,086	97	143	240
	1935	4,035	97	137	234
	1936	4,059	100	143	243
	1937	4,177	102	137	239
	1938	4,201	110	138	248
Other roads .. .. .	1934	36,010	20	32	52
	1935	36,947	26	31	57
	1936	36,350	30	31	61
	1937	36,467	28	29	57
	1938	36,699	32	31	63
Total, all roads .. .. .	1934	51,071	41	46	87
	1935	52,158	55	44	99
	1936	52,058	60	44	104
	1937	52,328	53	43	96
	1938	52,628	59	45	104

Tables Nos. 5 and 6 of the Appendix shows the lengths of various classes of roads, streets, and bridges during the years from 1922 to 1938, inclusive.

(3) MOTOR-TAXATION.

Table No. 7 shows an analysis of the revenue received from the various taxes and fees levied in connection with motor-vehicles, together with comparative figures for the previous thirteen years.

The total amount for 1938-39 was £5,887,206, the highest figure yet recorded, and over £500,000 in advance of the previous peak year 1937-38. Customs duties in respect of vehicles and parts has again declined, the figure for the year under review being £25,000 less than in the previous year. The revenue from the tire-tax has also receded, while all other items show an increase, petrol-tax reaching a new record total of £4,132,360, fees under the motor-vehicles Act advancing to £612,395, while other taxes have advanced by £27,000.

Table No. 8 sets out the full details of the collection and distribution of these taxes for 1938-39. Again approximately 54 per cent. of the net total is set aside for roading purposes, while of the balance, £2,696,633, credited to the Consolidated Fund, all but £5,336 is collected as Customs duty on imports.

(a) YIELD OF PETROL-TAX.

The following data shows the yield from and distribution of petrol-tax plus surtax on petrol imports since the inception of the tax in 1928 :—

*Yield.*

Year ended 31st March,	Gross Yield.	Refunds.	Net Yield.	Expenses of Collection and Refunds.	Net Balance.
	£	£	£	£	£
1928 .. .. .	148,202	32	148,170	1,710	146,460*
1929 .. .. .	867,794	49,105	818,689	8,303	810,386
1930 .. .. .	1,063,811	67,296	996,515	12,633	983,882
1931 .. .. .	1,480,517	100,978	1,379,539	16,335	1,363,204†
1932 .. .. .	1,817,893	137,585	1,680,308	20,360	1,659,948‡
1933 .. .. .	2,018,449	132,421	1,886,028	20,266	1,865,762§
1934 .. .. .	2,520,825	148,984	2,371,841	20,283	2,351,558
1935 .. .. .	2,773,372	159,978	2,613,394	20,180	2,593,214
1936 .. .. .	3,082,862	165,389	2,917,473	21,271	2,896,202
1937 .. .. .	3,557,070	166,426	3,390,644	20,596	3,370,048
1938 .. .. .	4,020,728	188,832	3,831,896	23,417	3,808,479
1939 .. .. .	4,358,498	201,451	4,157,047	24,687	4,132,360
Total up to 31st March, 1939	27,710,021	1,518,477	26,191,544	210,041	25,981,503

\* Part year only.      † Increase from 4d. to 6d. per gallon as from 22nd July, 1930.      ‡ Increase from 6d. to 8d. per gallon as from 7th October, 1931.      § Increase from 8d. to 10d. per gallon as from 9th February, 1933.

*Distribution.*

Year ended 31st March,	Consolidated Fund.	Main Highways Fund.	Local Authorities.	Total.
	£	£	£	£
1928 .. .. .	4,654	130,461	11,345	146,460
1929 .. .. .	16,458	730,414	63,514	810,386
1930 .. .. .	34,567	873,370	75,945	983,882
1931 .. .. .	63,154	1,219,209	80,841	1,363,204
1932 .. .. .	321,685	1,231,202	107,061	1,659,948
1933 .. .. .	1,122,147	644,126	99,489	1,865,762
1934 .. .. .	1,579,962	669,868	101,728	2,351,558
1935 .. .. .	1,510,338	970,506	112,370	2,593,214
1936 .. .. .	1,321,066	1,449,125	126,011	2,896,202
1937 .. .. .	1,524,459	1,697,942	147,647	3,370,048
1938 .. .. .	1,723,168	1,918,486	166,825	3,808,479
1939 .. .. .	1,867,928	2,083,278	181,154	4,132,360
Total .. .. .	11,089,586	13,617,987	1,273,930	25,981,503

N.B.—The distribution of petrol-tax amongst boroughs in accordance with section 9 (1) (b) of the Motor-spirits Taxation Act, 1927, for the year ended 31st March, 1939 together with cumulative figures showing the total distribution from the inception of the petrol-tax up to the 31st March, 1939, is given in Table No. 4 in the Appendix.

(b) REFUNDS OF PETROL-TAX.  
*Refunding of Duty on Motor-spirits.*

The number of claims for refunds of duty on motor-spirits dealt with each year since the inception of the Motor-spirits Taxation Act, 1927, are set out below. The number of claims handled during the last three years has shown a decrease compared with the year 1935. The decrease in the number of claims has not, however, had the effect of reducing the amount refunded, the total under this heading having increased each year. This is due to the fact that larger quantities of motor-spirits have, during the past few years, been consumed in aircraft. Certain types of vehicles used for agricultural purposes have been exempted from the payment of annual license fees, and this has resulted in larger amounts being refunded to certain claimants.

Year.						Number of Claims.	Amount refunded.
							£
1928	..	..	..	..	..	11,101	34,299
1929	..	..	..	..	..	19,814	60,834
1930	..	..	..	..	..	25,797	83,741
1931	..	..	..	..	..	37,116	132,150
1932	..	..	..	..	..	45,986	137,387
1933	..	..	..	..	..	49,265	138,194
1934	..	..	..	..	..	52,718	155,714
1935	..	..	..	..	..	55,447	163,884
1936	..	..	..	..	..	52,342	176,390
1937	..	..	..	..	..	50,965	188,446
1938	..	..	..	..	..	52,547	195,092

The particulars of the claims paid during each of the quarterly periods in 1938 are as follows :—

Quarter.						Number of Claims.	Amount refunded.
							£   s.   d.
March	..	..	..	..	..	14,934	58,278   14   0
June	..	..	..	..	..	14,122	56,846   0   8
September	..	..	..	..	..	11,794	39,395   16   6
December	..	..	..	..	..	11,697	40,571   7   1

During the calendar year 1938, 3,979 claims were lodged during the second month following the close of the respective quarterly periods and they were reduced by 10 per cent. in accordance with the provisions of section 7 of the Finance Act, 1933 (No. 2).

Refunds are made at the rate of 6d. per gallon on all motor-spirits consumed for purposes other than as fuel for motor-vehicles in respect of which annual license fees are payable. Section 13 of the Customs Acts Amendment Act, 1934, authorizes an additional refund of 2d. per gallon to be made on motor-spirits consumed in aircraft and in vessels used exclusively in the fishing industry for commercial purposes.

(c) SPECIAL MILEAGE-TAXATION.

Mileage-tax is payable by owners of most vehicles which are not propelled exclusively by means of motor-spirits. The tax is also payable by owners of self-propelled well-boring, air-compressor, saw-bench, and crane plants, the owners of which are, in effect, exempted by the provisions of the Motor-vehicles (Special Types) Regulations, 1935, from the payment of all other forms of motor-vehicle taxation. The owners of the last-mentioned vehicles are entitled to claim refunds of duty on all of the motor-spirits consumed in operating their contrivances.

The figures for the last six years are as follows :—

Year ended 31st March,					Number of Vehicles.	Revenue.
						£
1934	..	..	..	..	269	1,597
1935	..	..	..	..	96	1,629
1936	..	..	..	..	142	1,813
1937	..	..	..	..	198	4,159
1938	..	..	..	..	276	10,591
1939	..	..	..	..	327	13,461
Total					..	33,250

#### 4. ROAD SAFETY.

##### A. PUBLICITY, PROPAGANDA, AND ADULT EDUCATION.

The importance of publicity and propaganda in traffic-accident prevention is now recognized throughout the world.

The recent report of the House of Lords Committee on Road Reform Proposals states as follows :—

“ Witnesses were unanimous in affirming that an extensive and persistent campaign of educational propaganda should be undertaken and that it should be aimed at every class of road-user.”

The Committee agreed that this is required.

The House of Lords Committee recommended that :—

“ A Department of Propaganda should be formed, employing commercial experts, and the Treasury should make an early and substantial grant for the purpose. Co-operation from the pulpit and cinemas should be sought. Broadcasting, signs, advertisement posters, pamphlets, and lectures, &c., should also be employed. Methods adopted by the Post Office and the National Campaign for Fitness might be followed. Young children should be grounded at home in good road behaviour, and instruction in road safety should form part of the school curriculum.”

A road safety committee presided over by the Lord Mayor of Melbourne recently recommended the intensive education of the public of Melbourne in road-safety principles at a cost, for the first year, of £20,000 to £30,000. Publicity and propaganda are utilized on an extensive scale in accident-prevention in the United States.

As a result of the experience during the year it is the Department's considered opinion that a regular programme of publicity is a necessary part of an adequate road-safety campaign. To illustrate this, the following are of interest :—

It was anticipated that political meetings throughout the country prior to the elections would greatly increase the possibility of accidents, particularly to pedestrians. A special road-safety effort was made and, despite large crowds, nearly twenty days passed without a fatality on the roads. As far as is known, upon a population and car registration basis this constitutes a world's record.

Early in December another special effort was made in the organization of a Road Safety Week to bring to the notice of the public the danger of taking risks in Christmas and New Year holiday traffic. During the ten weeks following the commencement of the week, despite an increase of 25,000 cars on the road, there were forty-one traffic fatalities, as against fifty-eight for the corresponding period of the previous year. Road Safety Week had two effects: It brought about a reduction in accidents immediately following the effort, and it had the long-range effect of making the public mind more susceptible to road-safety propaganda in the future.

Another example of the value of publicity was shown by a special campaign among motor-cyclists. This was followed by a period of three months in which there were four fatal accidents, compared with eighteen during the same three months of the previous year.

During the year under review many different types of publicity and propaganda methods were used for road safety educational purposes by this Department. These included the radio, press, posters, leaflets, competitions, screen slides, good-riding awards, and personal addresses.

Accident statistics were utilized to the fullest extent not only in press statements, radio propaganda, leaflets, &c., but in planning the direction of the road-safety educational campaign. For instance, statistics indicated that May and June might be expected to be the worst months in the year for accidents to cyclists, and, accordingly, during these months publicity was directed towards the prevention of cycle accidents.

Assistance is acknowledged from the press, the National and Commercial Broadcasting Services, the Post and Telegraph and other Government Departments, local bodies, and the many business firms, organizations, and private individuals that have submitted suggestions and offered active assistance during the year.

The following were the main publicity activities during the year :—

*Press.*—The willing assistance of the press in the publication of road-safety material provided much valuable publicity. Statements summarizing accident statistics and announcing new developments in the work of the Department have been issued at intervals to the newspapers. Ministerial appeals for special care on particular occasions have also been published. Liberal space has been given to leading articles on topics of road safety. Meetings of the Road Safety Council and meetings of motor-cyclists throughout the country have been reported fully. During Road Safety Week several newspapers printed special safety editions.

*Posters and Posterettes.* Fourteen slogan and two pictorial posters were printed and distributed during the year. A poster competition was held in connection with Road Safety Week.



Twenty thousand copies of each of two varieties of tram-car window notices were printed.

Poster and posterettes were displayed to good effect throughout both Islands.

*Leaflets and Stickers.*—Immediately prior to Road Safety Week a million and a quarter copies of eight varieties of motorist and pedestrian leaflets were produced. Distribution was arranged through local bodies.

A further issue of gummed envelope stickers was necessary, and 100,000 copies of each of twelve designs were distributed.

*Book-cover Publicity.*—A million and a quarter book covers carrying road safety publicity were issued to libraries. The Department was able to secure exceedingly advantageous terms.

*Transfers.*—Several thousand windscreen and bicycle transfers were distributed.

*Screen Slides.*—Screen slides have been displayed in a number of theatres at reduced rates.

*Films.*—The Department has produced two short 16 mm. natural-colour films, featuring road safety against a scenic New Zealand background. A number of 16 mm. sound films have been obtained from the United States. These have already been used at meetings in different parts of the Dominion, and will be valuable assets in the future.

*Cameras.*—A useful library is being accumulated of photographs taken by Traffic Inspectors of accident wrecks, scenes of accidents, breaches of the regulations, &c. A large number of these were supplied for publication and display during Road Safety Week.

*Radio.*—The Department is indebted to the national and commercial services for their exceedingly valuable co-operation in broadcasting slogans and dialogue.

*Road Safety Week.*—From 4th December to 10th December a Road Safety Week was held throughout New Zealand. Local-body officials formed the nucleus of special committees in each centre, and carried out very valuable organizing work. Six departmental floats in each Island travelled respectively from Wellington to Auckland and return, and from Christchurch to Invercargill and return. At each town on the itinerary where local processions had been arranged the Department's floats linked up with local exhibits. One hundred and twenty dialogues were recorded in duplicate and distributed to radio stations throughout the Dominion. Mayors and Chairmen of local bodies and also the clergy made local appeals for co-operation. The campaign during Road Safety Week clearly demonstrated the value of "shock tactics." Despite traffic increases, there was an actual reduction of several hundred accidents during the three months following the week, compared with the same three months of the previous year.

*Motor-cyclists.*—Two copies of a small motor-cycle magazine were distributed to all registered motor-cyclists, and a further copy is in the course of preparation.

Conferences were held between the Department's Publicity Officer and representatives of the clubs in all the main centres. Agreement was reached regarding new regulations for the better control of motor-cycling, and these have now become law. Considerable assistance in the carrying out of road-safety measures has been given by the clubs. A distinct improvement in the motor-cycle-accident rate is already evident.

## B. NEW ZEALAND ROAD SAFETY COUNCIL.

Some further changes in the personnel of the Safety Council have taken place due to the resignation of Dr. G. F. Anson and the return to New Zealand of Mr. G. R. Ashbridge. The present personnel of the Council is Hon. R. Semple (Chairman), Mr. G. L. Laurensen (Deputy-Chairman), Mr. J. H. Jerram, Mr. G. R. Ashbridge, Mr. J. F. Cousins, Mr. M. F. Luckie, Mr. D. J. Cummings, Mr. J. Wood, Dr. J. W. McIlraith, Mr. F. C. Spratt, Dr. S. D. Rhind, Miss M. Magill, Mr. J. S. Hawkes, Mr. W. A. O'Callaghan, and Mr. C. J. Talbot.

During the year under review three meetings were held by the Council, and the following were among the many problems considered :—

- The high accident rate of motor-cycles and rental cars.
- Intoxicated motorists (including fresh laws and standard tests).
- Learner plates for new drivers.
- Publicity (adults and school-children).
- Revision of vehicle-lighting requirements.
- Better lighting of highways.
- Revision of pedestrian-crossing requirements.
- Safety zones and pavement markings.
- Minimum age for taxi-drivers.
- Safety glass for all motor-vehicles.

A special sub-committee, consisting of all Wellington members, was appointed to go thoroughly into the problem of the driver who is the worse for drink (not necessarily intoxicated).

The Council continues to prove of the greatest assistance to the Department in road-safety matters.

## C. ROAD-ACCIDENT STATISTICS.

## (1) INTRODUCTORY.

(a) *General.*

The compilation of statistics relating not only to fatal accidents, but also to those involving other personal injury was continued during the past year. The system of reporting and recording these accidents, which was inaugurated in March, 1937, has been somewhat improved, so that comprehensive details of most features of the accident trends can now be ascertained fairly readily.

(b) *Classification of Bodily Injuries.*

While at first it was left entirely to the judgment of the reporting officer to determine whether an injury should be classified as "serious" or "minor" it was later decided to adopt the broad definitions prescribed by the League of Nations Committee dealing with unification of accident statistics. The following bodily injuries were then defined as "serious"—fractures, concussion, internal injuries, crushings, severe cuts and lacerations, severe general shock necessitating medical treatment, and any other injury involving removal to and detention in hospital. Only lesser injuries such as bruises and sprains were to be classified as "minor." The application of this classification immediately resulted in a large increase in the number of "serious" injuries which were reported, and a corresponding decrease in the "minor" injuries.

(c) *The Number of Accidents.*

The number of fatal motor accidents which occurred on the roads and streets of the Dominion during the year ended 31st March, 1939, was 225. There were also 4,158 other accidents where one or more of those involved received injury to their person. Altogether 246 persons were killed and 5,635 were injured.

## (2) FATAL ACCIDENTS.

During the past five years 1,087 lives have been lost through motor-accidents which have occurred on the roads and streets of the Dominion. The following table shows how the death-rate per million gallons of petrol consumed by motor-vehicles has dropped steadily from 3.19 in 1935 to 2.69 in 1939. The number of deaths per 10,000 motor-vehicles has decreased from 9.63 in 1935 to 8.85 per 10,000 in 1939.

TABLE A.—ANNUAL DEATH-RATE AND ROAD USAGE DURING THE PAST FIVE YEARS.

Year ended 31st March,	Number of Deaths.	Petrol Consumed (Million Gallons).	Deaths per Million Gallons.	Average number of Motor-vehicles on the Road.	Deaths per 10,000 Motor-vehicles.
1935 .. .. .	182	57.08	3.19	188,983	9.63
1936 .. .. .	203	64.99	3.12	203,817	9.96
1937 .. .. .	213	73.88	2.88	227,572	9.36
1938 .. .. .	243	84.43	2.89	252,359	9.63
1939 .. .. .	246	91.56	2.69	278,099	8.85
Totals .. .. .	1,087	371.64	2.92	1,150,830	9.45

In a comparison of the fatal accidents during the year ended 31st March, 1939, with those which occurred during the preceding year the following main points emerge:—

- (i) The number occurring in the built-up areas has increased by 18½ per cent. Practically the whole of this increase is in respect of accidents occurring in the daylight.
- (ii) On the rural roads the converse applies. The fatal accidents have been reduced by 14 per cent., and the whole of the reduction is in respect of daylight accidents. The number occurring after dark has actually increased by one.
- (iii) The most marked variation from the previous year in respect of type of accident is an increase of 10 in the number of non-collisions occurring at night. These consisted mainly of instances where the vehicle left the road or overturned on the roadway.

The following table shows for purposes of comparison the details of the fatal accidents which occurred during each of the two years 1937–38 and 1938–39.

TABLE B.—COMPARISON OF DETAILS OF FATAL MOTOR ACCIDENTS, 1937–38 AND 1938–39.

Item.	Year.	
	1938–39.	1937–38.
Number of fatal accidents---		
(a) Total number .. .. .	225	229
Number in daylight .. .. .	118	121
Number in dark .. .. .	107	108
(b) Number occurring in built-up areas ---		
Total .. .. .	102	86
In daylight .. .. .	51	33
In dark .. .. .	51	53
(c) Number occurring on Rural Roads---		
Total .. .. .	123	143
In daylight .. .. .	67	88
In dark .. .. .	56	55
(d) Number of collisions between motor-vehicles ..		
Total .. .. .	40	36
In daylight .. .. .	27	24
In dark .. .. .	13	12
(e) Number of collisions with railway trains---		
Total .. .. .	11	11
In daylight .. .. .	7	8
In dark .. .. .	4	3
(f) Number of collisions with trams .. .. .	1	3
(g) Number of collisions with bicyclists---		
Total .. .. .	34	33
In daylight .. .. .	18	20
In dark .. .. .	16	13
(h) Number of collisions with pedestrians---		
Total .. .. .	57	58
In daylight .. .. .	17	17
In dark .. .. .	40	41
(i) Number of collisions with horse-vehicles or animals ..	1	2
(j) Number of other collisions---		
Total .. .. .	18	33
In daylight .. .. .	11	13
In dark .. .. .	7	20
(k) Number of non-collisions---		
Total .. .. .	63	53
In daylight .. .. .	38	38
In dark .. .. .	25	15
Number of persons killed---		
(a) Total number .. .. .	246	243
(b) Number of occupants of motor-vehicles (not motor-cycles) ..	115	116
(c) Number of riders of motor-cycles or pillion-riders ..	37	35
(d) Number of bicyclists .. .. .	33	32
(e) Number of pedestrians .. .. .	56	59
(f) Number of other road users .. .. .	5	1

(3) PARTICULARS OF ALL ACCIDENTS REPORTED (*i.e.*, FATAL AND OTHER INJURY ACCIDENTS).(a) *Types of Accidents.*

The most frequent type of fatal accident was the collision of a pedestrian and motor-vehicle. In the towns this form of accident represented 36 per cent. of all the fatal accidents, while collisions of motor-vehicles with bicyclists accounted for another 22 per cent. Even on country highways the pedestrian accidents made up 17 per cent. of all the fatal accidents. Considering both fatal and non-fatal accidents, however, the most numerous type of accident was the collision between two motor-vehicles, accounting for 34 per cent. of all accidents. Table C shows the number of each type of accident occurring in built-up and other areas. ("Built-up areas" are taken as boroughs, town districts, and any roads outside those areas subject to the speed-limit of 30 miles an hour).

TABLE C.—TYPES OF MOTOR ACCIDENTS.

Type of Accident.	Number of Accidents.								
	In Built-up Areas.			In Areas not Built up.			In all Areas.		
	Fatal.	Non-fatal.	Total.	Fatal.	Non-fatal.	Total.	Fatal.	Non-fatal.	Total.
Collisions—									
With another motor-vehicle	17	841	861	23	603	626	40	1,447	1,487
With a railway train	8	23	31	3	10	13	11	33	44
With an electric tram	1	33	34	..	6	6	1	39	40
With a bicyclist	23	846	869	9	114	123	32	960	992
With a pedestrian	37	711	748	21	110	131	58	821	879
With a horse vehicle	1	9	10	..	4	4	1	13	14
With a ridden horse	..	2	2	..	11	11	..	13	13
With an animal	..	2	2	..	19	19	..	21	21
With a telegraph or power pole	7	82	89	5	71	76	12	153	165
With a fixed object	..	1	1	4	5	9	4	6	10
Other collisions	2	68	70	1	73	74	3	141	144
Total	96	2,621	2,717	66	1,026	1,092	162	3,647	3,809
Non-collisions --									
Drove off roadway	2	12	14	10	91	101	12	103	115
Over bank	2	24	26	24	145	169	26	169	195
Overturned on road	1	41	42	16	136	152	17	177	194
Person fell from vehicle	..	13	13	4	25	29	4	38	42
Other	1	15	16	3	9	12	4	24	28
Total	6	105	111	57	406	463	63	511	574
Total accidents	102	2,726	2,828	123	1,432	1,555	225	4,158	4,383

(b) Location of Accidents.

In the section of this report which deals with the traffic census on the main-highway system it was estimated that the urban roads carried 30 per cent. of all motor traffic, the main highways 60 per cent., and other rural roads 10 per cent. Table D indicates that 66 per cent. of the accidents occurred on the urban roads, 28 per cent. on the main highways, and nearly 6 per cent. on the other rural roads. From these comparative figures, which are also depicted graphically by Fig. 5, the accident hazard on a basis of road used by motor-vehicles is seen to be much greater in the urban areas than on the open road, while the hazard on the main-highway system is less than on the other rural roads. In connection with these comparisons, however, it should be remembered that in the urban areas there is also a considerable volume of pedestrian and cyclist traffic which would materially increase the potential hazard.

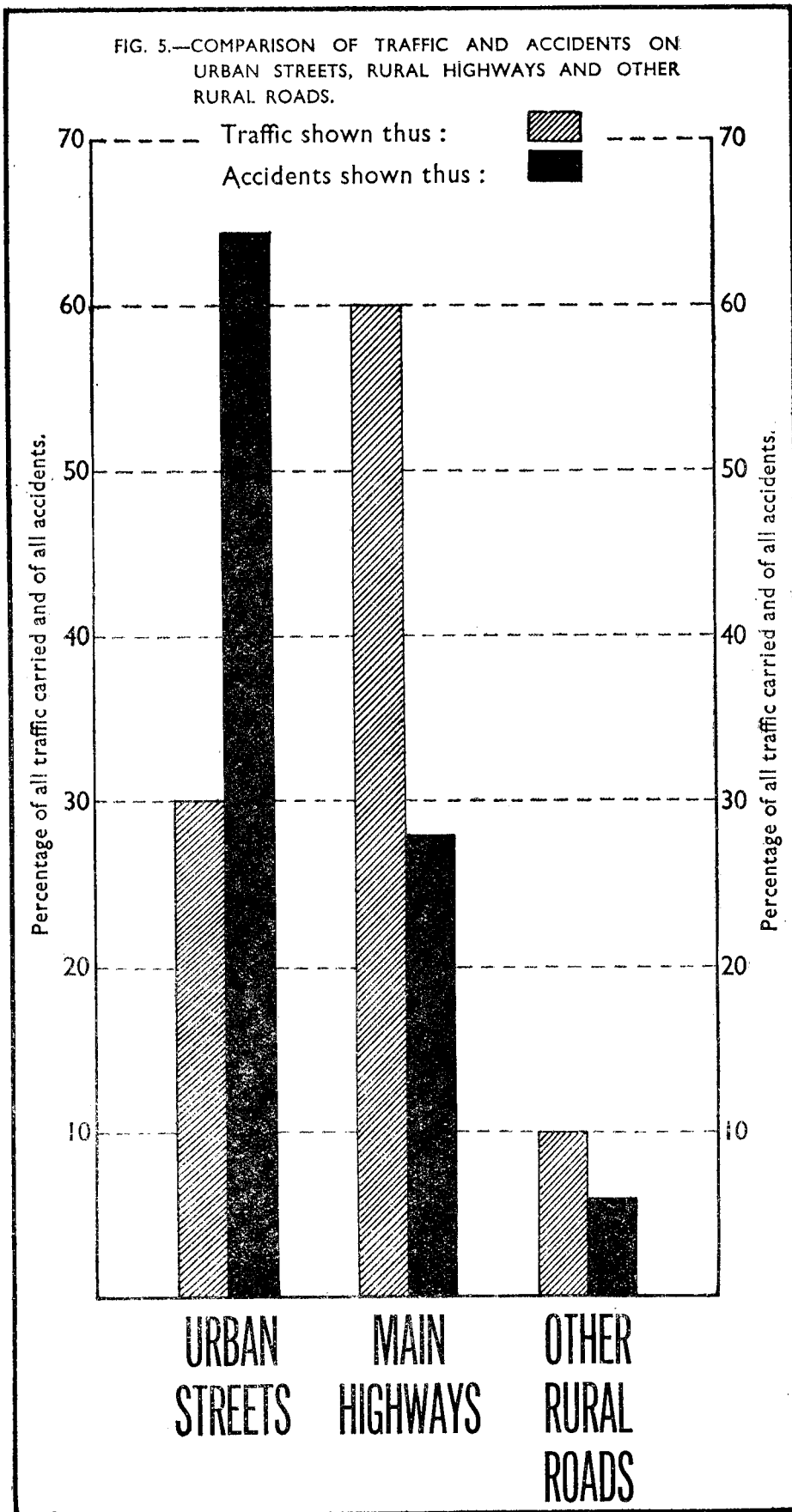


TABLE D. DISTRIBUTION OF MOTOR ACCIDENTS ON THE SYSTEM OF ROADS AND STREETS.

Classification of Locality.	Number of Accidents.					
	Fatal.		Non-fatal.		Total.	
	Number.	Percentage of Total.	Number.	Percentage of Total.	Number.	Percentage of Total.
In the metropolitan areas ..	57	25.3	1,671	40.2	1,728	39.4
In the secondary cities ..	13	5.8	223	5.4	236	5.4
In the large boroughs ..	15	6.7	470	11.3	485	11.1
In the small boroughs ..	22	9.8	340	8.2	362	8.3
In the town districts ..	4	1.7	46	1.1	50	1.1
In the closely populated localities ..	..	..	49	1.2	49	1.1
Total, urban areas ..	111	49.3	2,799	67.4	2,910	66.4
On State highways ..	57	25.3	737	17.7	794	18.1
On other main highways ..	37	16.5	392	9.4	429	9.8
On rural roads ..	20	8.9	230	5.5	250	5.7
Total, rural roads ..	114	50.7	1,359	32.6	1,473	33.6
Totals ..	225	100.0	4,158	100.0	4,383	100.0

It will be observed that over half of the urban accidents were concentrated in the large metropolitan areas—i.e., the urban areas comprising and adjoining the cities of Auckland, Wellington, Christchurch, and Dunedin.

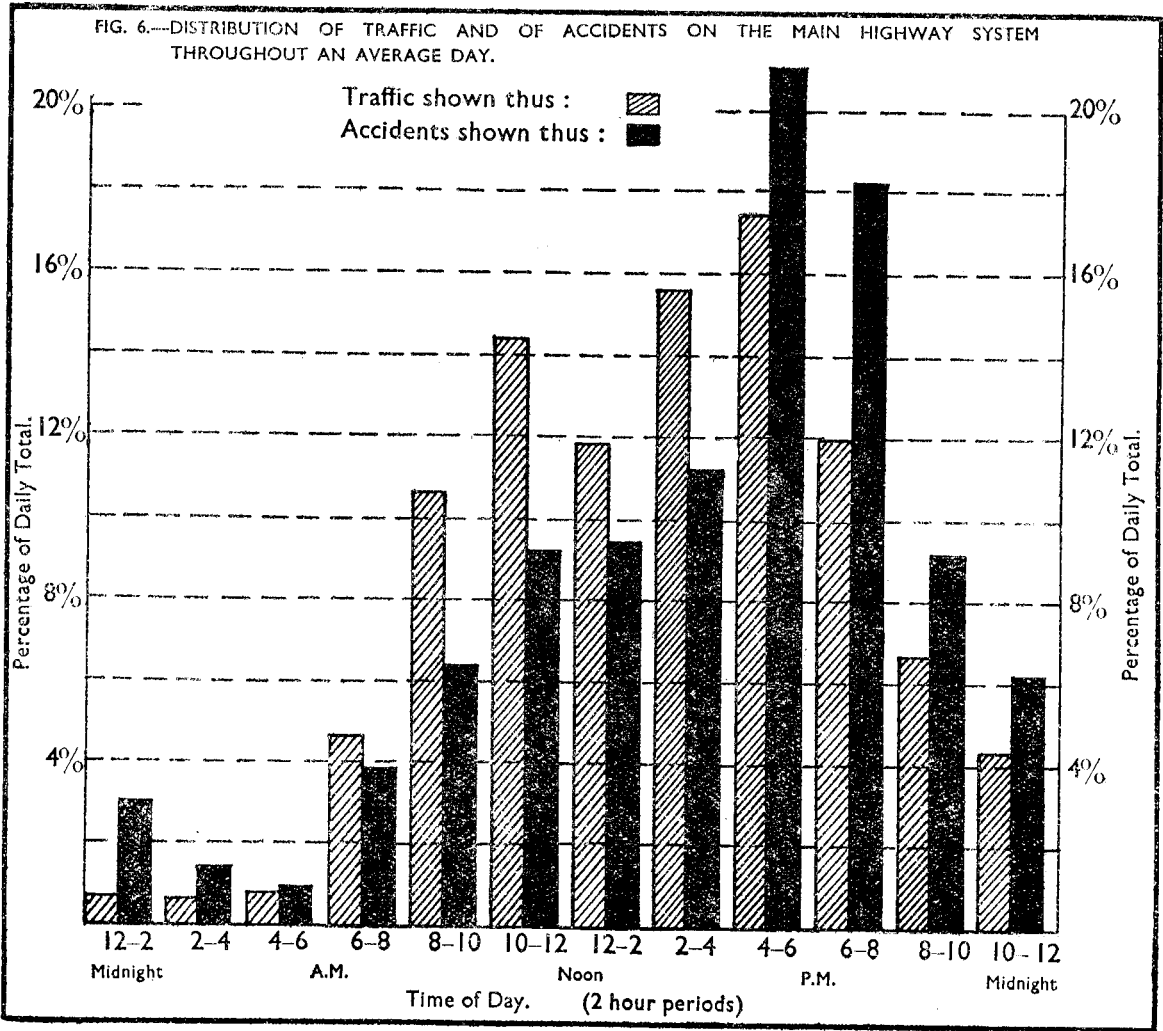


TABLE E. NUMBER OF MOTOR ACCIDENTS OCCURRING IN EACH OF THE LARGE URBAN AREAS, CLASSIFIED ACCORDING TO TYPE OF ACCIDENT.

Urban Areas.		Number of Accidents.												
		Number of Fatal Accidents.	Collisions.							Non-collisions.				Total Accidents.
			With other Motor-vehicle.	With Railway Train.	With Electric Tram.	With Bicyclist.	With Pedestrian.	With Telegraph or Power Pole.	Other Collisions.	Vehicle left Road.	Vehicle overturned on Road.	Person fell from Vehicle.	Other.	
Auckland Area	Metropolitan	18	232	5	8	147	254	29	27	8	12	2	3	727
Wellington Area	Metropolitan	20	135	..	9	52	165	14	13	10	7	1	3	409
Christchurch Area	Metropolitan	13	115	1	8	232	65	10	11	2	5	2	..	451
Dunedin Area	Metropolitan	6	50	..	2	42	36	..	5	2	2	2	..	141
Wanganui City	..	3	26	3	2	37	7	4	..	..	2	..	..	81
Palmerston North City	..	7	27	4	..	30	16	3	..	..	..	..	..	80
Nelson City	..	..	2	..	..	8	5	..	..	1	..	..	..	17
Invercargill City	..	3	18	1	2	23	11	..	2	..	1	..	..	58
Whangarei Borough	..	1	5	1	..	4	7	..	..	..	..	..	1	18
Takapuna Borough	..	2	2	..	..	1	2	2	..	..	1	..	..	8
Devonport Borough	..	..	7	..	..	3	5	..	..	..	1	1	..	17
Hamilton Borough	..	3	13	2	..	26	16	1	4	1	2	1	..	66
Rotorua Borough	..	..	2	1	..	6	3	1	..	..	..	..	..	13
New Plymouth Borough	..	1	18	..	3	11	14	1	1	..	2	..	1	51
Gisborne Borough	..	1	16	..	..	24	7	1	..	..	1	..	2	51
Napier Borough	..	..	13	..	..	11	16	2	..	1	..	1	1	45
Hastings Borough	..	1	13	..	..	21	10	1	1	..	..	..	1	47
Masterton Borough	..	..	7	..	..	9	1	1	..	..	..	..	..	18
Lower Hutt Borough	..	3	18	1	..	21	11	5	2	..	..	1	..	59
Petone Borough	..	1	14	2	..	14	6	1	4	2	..	..	..	43
Greymouth Borough	..	1	5	..	..	10	6	..	1	..	1	..	..	23
Timaru Borough	..	..	6	..	..	9	2	..	..	..	..	..	..	17
Oamaru	..	1	4	..	..	2	2	1	..	..	..	..	..	9
Total		85	748	21	34	743	667	77	71	27	38	11	12	2,449

The number and type of the accidents which occurred in the larger urban areas are given in Table E. From this table it is seen that nearly half the pedestrian accidents for New Zealand occurred in the Auckland and Wellington urban areas. Over half the Christchurch accidents were collisions between a motor-vehicle and cyclist. There were also a large number of bicyclist accidents in Auckland, these two areas being the scene of nearly 40 per cent. of all cyclist accidents throughout the Dominion.

The general distribution of accidents on the State highway system may be seen on reference to the maps presented at the end of this report. The accidents occur most frequently where the traffic is densest, and particularly on the open sections of road where the driver is probably not so vigilant as on the more difficult sections.

(c) Time of Accidents.

The hours at which accidents happen adhere closely to the distribution of traffic throughout the twenty-four-hour period, except that the ratio of accidents to traffic increases considerably at nightfall. This point is illustrated by Fig. 6, based upon statistics of traffic and accidents over the rural main-highway system.

The actual hourly distribution of accidents in urban and rural areas throughout the whole year is as follows :—

TABLE F.—CLASSIFICATION OF MOTOR ACCIDENTS ACCORDING TO HOUR OF OCCURRENCE.

Hour of Day.	Number of Accidents.					
	Built-up Areas.		Areas not Built up.		All Areas.	
	Number.	Percentage of Daily Total.	Number.	Percentage of Daily Total.	Number.	Percentage of Daily Total.
Midnight to 1 a.m. . . . .	53	1·9	40	2·6	93	2·1
1 a.m. to 2 a.m. . . . .	24	0·8	28	1·8	52	1·2
2 a.m. to 3 a.m. . . . .	19	0·7	17	1·1	36	0·8
3 a.m. to 4 a.m. . . . .	15	0·5	11	0·7	26	0·6
4 a.m. to 5 a.m. . . . .	8	0·3	7	0·5	15	0·3
5 a.m. to 6 a.m. . . . .	9	0·3	7	0·5	16	0·4
6 a.m. to 7 a.m. . . . .	9	0·3	11	0·7	20	0·5
7 a.m. to 8 a.m. . . . .	123	4·4	37	2·4	160	3·7
8 a.m. to 9 a.m. . . . .	106	3·7	49	3·2	155	3·5
9 a.m. to 10 a.m. . . . .	85	3·0	60	3·8	145	3·3
10 a.m. to 11 a.m. . . . .	114	4·0	62	3·9	176	4·0
11 a.m. to noon . . . . .	133	4·7	87	5·6	220	5·0
Noon to 1 p.m. . . . .	190	6·7	49	3·2	239	5·5
1 p.m. to 2 p.m. . . . .	121	4·3	53	3·4	174	4·0
2 p.m. to 3 p.m. . . . .	140	5·0	105	6·8	245	5·6
3 p.m. to 4 p.m. . . . .	156	5·5	131	8·6	290	6·6
4 p.m. to 5 p.m. . . . .	252	8·9	139	8·9	391	8·9
5 p.m. to 6 p.m. . . . .	333	11·8	157	10·1	490	11·2
6 p.m. to 7 p.m. . . . .	209	7·5	138	8·9	347	7·9
7 p.m. to 8 p.m. . . . .	267	9·5	116	7·5	383	8·7
8 p.m. to 9 p.m. . . . .	167	5·9	74	4·8	241	5·5
9 p.m. to 10 p.m. . . . .	97	3·4	62	3·9	159	3·6
10 p.m. to 11 p.m. . . . .	117	4·0	57	3·6	174	4·0
11 p.m. to midnight . . . . .	81	2·9	55	3·5	136	3·1
Totals . . . . .	2,828	100·0	1,555	100·0	4,383	100·0

(d) The Effect of Darkness.

The effect of conditions of darkness in contributing to accidents is apparent from the statistics. In the year ended 31st March, 1939, the distribution of accidents each month according to daylight and dark was as follows :

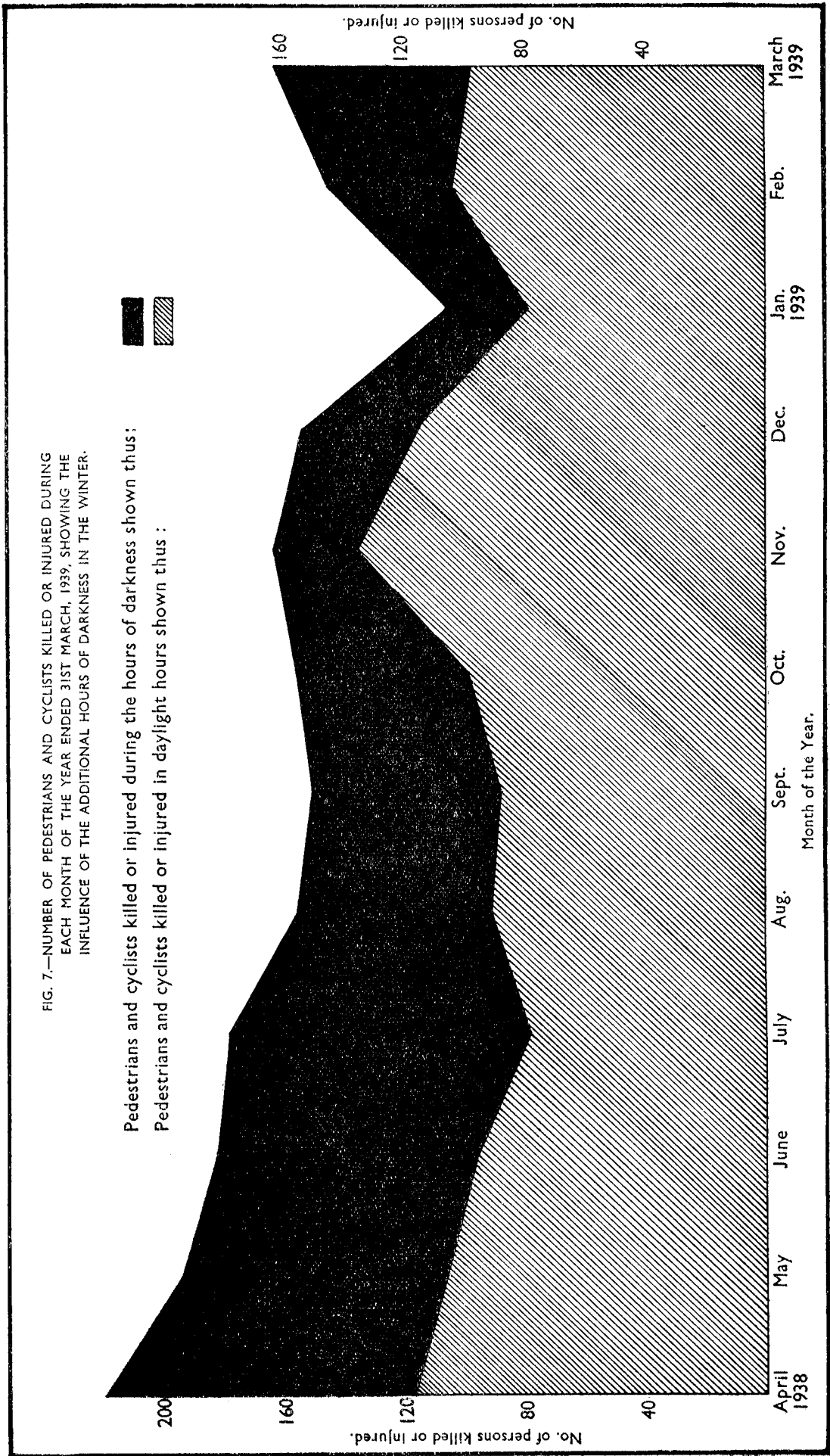
TABLE G.—CLASSIFICATION OF ACCIDENTS EACH MONTH ACCORDING TO LIGHT CONDITIONS.

Condition of Light.	Number of Accidents each Month.												
	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Total.
Daylight . . . . .	286	245	170	160	175	192	251	274	302	262	253	241	2,781
Darkness (including dusk)	204	175	186	173	135	120	135	72	96	66	101	139	1,602
Totals . . . . .	490	390	356	333	310	312	386	346	398	328	354	380	4,383

In addition to lack of seeing ability at night, which is undoubtedly the major reason for the increase in night accidents, the following other factors would contribute to some degree also :

- (i) Fatigue of road-user :
- (ii) Greater proportion of " joy-riding " at night :
- (iii) Liquor a more common factor at night than in the daytime.





Pedestrian and cyclist accidents at night were much more frequent during the winter months than in the summer. In the months from April to October there were 344 pedestrian casualties at night as compared with 266 during daylight, and in the months of June and July 124 pedestrians were killed or injured at night and only 66 in the daytime. An analysis of the 113 pedestrian night accidents during these two months reveals the following facts :—

- (i) One such accident proved fatal for every seven where some one was injured.
- (ii) In 91 cases the pedestrian was crossing the roadway—in 73 instances without exercising due care.
- (iii) In 16 instances the pedestrian was intoxicated.
- (iv) In 70 cases the main fault lay with the pedestrian, in 37 cases with the motorist, and in 6 cases dazzling lights were blamed. There were, in addition, 74 other contributory causes consisting also of faults on the part of the motorist, pedestrians, and vehicle lights.
- (v) Inattentive driving by the motorist was his most frequent fault contributing to the accidents.

The weather was wet at the time of 42 of the 113 accidents.  
The bicyclist does not use the roads after dark to as great an extent as the pedestrian, but, nevertheless, throughout the year nearly 30 per cent. of the cyclists involved in accidents were injured during the hours of darkness. From April to July 163 cyclist casualties occurred at night and 232 in the daytime.

Figure 7 shows the numbers of pedestrians and cyclists killed or injured at night each month as compared with the monthly daylight figures.

Generally the severity of accidents is greater at night than during daylight. In the daytime there was 1 fatal accident for 23 non-fatal, but at night every fifteenth accident proved fatal. Although only 36 per cent. of all accidents happened at night, over 47 per cent. of the fatal accidents occurred at dusk or dark. The proportion of night accidents is very similar in town and country areas, as evinced by Table H.

TABLE H.—CLASSIFICATION OF ACCIDENTS IN BUILT-UP AND OTHER AREAS ACCORDING TO LIGHT CONDITIONS.

Light Condition.	Number of Accidents.								
	Built-up Areas.			Areas not Built up.			All Areas.		
	Fatal.	Non-fatal.	Total.	Fatal.	Non-fatal.	Total.	Fatal.	Non-fatal.	Total.
Daylight .. ..	51	1,732	1,783	67	931	998	118	2,663	2,781
Dusk .. ..	3	117	120	9	52	61	12	169	181
Dark .. ..	48	877	925	47	449	496	95	1,326	1,421
Total .. ..	102	2,726	2,828	123	1,432	1,555	225	4,158	4,383

The following measures suggest themselves as being vital for improving conditions of safety at night :

- (i) Provision of a modern highway lighting system on rural highways carrying a considerable volume of night traffic.
- (ii) Improvement of the standard of street lighting in the cities and other towns.
- (iii) Proper adjustment, maintenance, and control of headlights on motor-vehicles.
- (iv) Exercise of greater care on the part of motorists, pedestrians, and cyclists alike :—
  - (a) Motorists should drive at a reduced speed to allow for the great reduction in visibility at night.
  - (b) The pedestrian should remember that the motorist often cannot see him and should make allowance accordingly. For his own protection it is desirable that light-coloured clothing be worn at night by a pedestrian. A light-coloured overcoat (or stockings) will reveal the presence of a pedestrian under conditions where one clad in darker clothes would be quite invisible to the driver of a motor-vehicle.
  - (c) The cyclist, as well as riding with greater care, should ensure that his bicycle is fitted with an efficient reflector and the regulation white mudguard. As an addition to the reflector a red-tail light is recommended. Also, just as the pedestrian may improve his chances of being seen by the wise choice of light-coloured clothing, so may the cyclist.

(c) *The Age and Sex of Persons killed or injured.*

The age and sex of the victims of the 4,383 motor accidents are shown in Tables I and J hereunder.

TABLE I.—PERSONS KILLED OR INJURED, ACCORDING TO AGE AND SEX.

Age-group.	Number of Persons killed or injured.								
	Killed.			Injured.			Total.		
	Male.	Female.	All Persons.	Male.	Female.	All Persons.	Male.	Female.	All Persons.
0- 4 years .. ..	6	4	10	78	49	127	84	53	137
5- 9 years .. ..	6	5	11	131	95	226	137	100	237
10-14 years .. ..	4	4	8	211	120	331	215	124	339
15-19 years .. ..	22	5	27	577	242	819	599	247	846
20-24 years .. ..	33	5	38	723	252	975	756	257	1,013
25-34 years .. ..	31	4	35	819	271	1,090	850	275	1,125
35-44 years .. ..	19	5	24	442	209	651	461	214	675
45-54 years .. ..	15	5	20	394	233	627	409	238	647
55-64 years .. ..	32	5	37	311	151	462	343	156	499
65 years and over ..	23	12	35	207	96	303	230	108	338
Age not reported ..	1	..	1	16	8	24	17	8	25
Total .. ..	192	54	246	3,909	1,726	5,635	4,101	1,780	5,881

TABLE J.—RELATING THE NUMBER OF CASUALTIES TO POPULATION IN THE VARIOUS AGE-GROUPS.

Age-group.				Population (1936 Census).	Number of Persons killed during Year.	Number of Persons killed or injured.	Ratio between Number killed and Number killed and all Victims.	Number of Persons killed per 100,000 Population.	Number of all Road Casualties per 100,000 Population.
							Per Cent.	Per Cent.	
0- 4 years .. ..	..	..	..	130,762	10	137	7·3	7·7	105
5- 9 years .. ..	..	..	..	140,994	11	237	4·6	7·8	168
10-14 years .. ..	..	..	..	145,647	8	339	2·4	5·5	233
15-19 years .. ..	..	..	..	140,221	27	846	3·2	19·2	603
20-24 years .. ..	..	..	..	141,340	38	1,013	3·7	26·9	717
25-34 years .. ..	..	..	..	245,146	35	1,125	3·1	14·3	459
35-44 years .. ..	..	..	..	200,180	24	675	3·6	12·0	337
45-54 years .. ..	..	..	..	187,295	20	647	3·1	10·7	345
55-64 years .. ..	..	..	..	139,631	37	499	7·4	26·5	357
65 years and over ..	..	..	..	100,774	35	338	10·3	34·7	335
Unspecified .. ..	..	..	..	1,820	1	25	4·0	..	..
Total .. ..	..	..	..	1,573,810	246	5,881	4·2	15·6	374

Table J relates the numbers of casualties in each age-group to the population in those groups. It is seen that in the case of the very young and also the two oldest age-groups the severity of accident is greater than for the other ages. While over all age-groups there was one person killed for every 24 injured, there was one child under five years killed for every 13 injured. Again, in the age-group fifty-five to sixty-four years one person was killed for 13 others injured, while of those persons sixty-five years or over every tenth casualty resulted in a fatality.

When considering deaths on a population basis the older age-groups suffer heavily. The average death-rate for all ages is 15·6 per 100,000, but the group of persons who have reached sixty-five years or more has a road-death rate of nearly 35 per 100,000 population and the fifty-five to sixty-four years group has a death-rate of 26·5 per 100,000. Of the other age-groups the persons from twenty to twenty-four years have the highest death-rate—nearly twenty-seven per 100,000. Children have the lowest rate, the group from ten to fourteen years recording only 5·5 deaths per 100,000.

When all accidents are taken into consideration it is found that the twenty to twenty-four years age-group has the worst record—viz., 717 casualties per 100,000 population. The fifteen to nineteen

years group also has a high rate—603 casualties per 100,000. After thirty-five years is reached the rate is comparatively steady at about 340 casualties per 100,000. The accident rate for children averages 170 per 100,000, or half that of the groups over thirty-five years.

(f) *The Types of Road-users killed or injured.*

The numbers of the various types of road-users who were killed or injured each month are set out in the following table:—

TABLE K.—TYPE OF ROAD-USERS KILLED OR INJURED EACH MONTH.

Month.				Number of Persons killed or injured.					
				Occupants of Motor- vehicles.	Motor- cyclists or Pillion- riders.	Bicyclists.	Pedes- trians.	Other.	Total.
1938.									
April	..	..	..	325	92	108	112	4	641
May	..	..	..	226	78	117	77	6	504
June	..	..	..	228	67	98	84	4	481
July	..	..	..	200	56	72	106	4	438
August	..	..	..	187	47	70	86	12	402
September	..	..	..	180	64	78	73	5	400
October	..	..	..	277	84	84	72	10	527
November	..	..	..	215	76	95	68	3	457
December	..	..	..	299	102	81	73	3	558
1939.									
January	..	..	..	309	60	54	52	3	478
February	..	..	..	244	79	78	67	5	473
March	..	..	..	284	70	81	82	5	522
Totals	..	..	..	2,974	875	1,016	952	64	5,881

April was the record month last year in respect of the number of all casualties. There were more motor-vehicle-occupant and also more pedestrian casualties that month than during any other. In May there was a greater number of bicyclists injured than in April, and in December there were more motor-cyclists. Generally speaking, the summer months produce the greatest crop of accidents to users of motor-vehicles, but, as indicated earlier in the report, the winter months are the worst for pedestrians and cyclists.

(g) *Accident Causes.*

An endeavour has been made to assess the responsibility for the various types of accidents to the different parties involved. Each individual report received indicates the main cause of the accident in the opinion of the reporting officer. In Table L these main causes have been set down against the appropriate party or feature judged to be to blame. There are also, of course, other secondary causes indicated in many accidents, but these have been disregarded for this purpose.

TABLE L.—ASSESSMENT OF MAIN RESPONSIBILITY FOR ACCIDENTS.

Type of Accident.	Number of Accidents.										
	Motorist at Fault.			Bicyclist at Fault.			Pedestrian at Fault.	Road Fault.	Adverse Weather-conditions.	Other.	Total.
	Driving Fault.	Defect of Motor-vehicle.	Total.	Riding Fault.	Cycle Fault.	Total.					
Motor-vehicle and bicyclist	452	9	461	497	23	520	..	8	3	..	992
Motor-vehicle and pedestrian	233	22	255	..	..	..	623	1	..	..	879
Other motor-vehicle accidents	2,146	150	2,296	..	..	..	..	100	26	90	2,512
Total accidents involving a motor-vehicle	2,831	181	3,012	497	23	520	623	109	29	90	4,383

In the case of 992 accidents involving bicyclists it will be noted that the motorist is judged to be mainly responsible in 46 per cent. of the cases, the cyclist in 53 per cent.; the road in 1 per cent., and weather in three instances only. The most frequent faults of the motorist were :—

Failure to yield right of way .. .. .	107 cases.
Driver inattentive or attention diverted .. .. .	93 cases.
Failure to keep to correct side of road .. .. .	52 cases.
Passing other vehicle negligently .. .. .	34 cases.

The main faults on the part of the bicyclist were :—

Failure to yield right of way .. .. .	92 cases.
Rider inattentive or attention diverted .. .. .	81 cases.
Failure to keep to correct side of road .. .. .	72 cases.
Failure to give clear signal .. .. .	55 cases.
Swerving .. .. .	48 cases.
Reckless emergence from another road .. .. .	32 cases.

In 879 accidents involving a pedestrian the motorist was found to have committed the main fault in 29 per cent. of the accidents and the pedestrian in 71 per cent. The main motorist faults committed were :—

Driver inattentive or attention diverted .. .. .	64 cases.
Failure to give way at an authorized crossing .. .. .	39 cases.
Failure to keep to correct side .. .. .	18 cases.
Excessive speed having regard to the conditions .. .. .	17 cases.

The most frequent pedestrian faults causing accidents were as follows :—

Crossing roadway heedless of traffic .. .. .	329 cases.
Stepping into roadway without due care .. .. .	125 cases.
Emerging from behind a vehicle or object .. .. .	51 cases.
Pedestrian intoxicated .. .. .	31 cases.
Failure to keep to side of road .. .. .	24 cases.

The actions of the pedestrians involved in the 879 accidents were as follows :—

Walking along the road—

(a) In the same direction as vehicle .. .. .	83 accidents (15 fatal).
(b) In the opposite direction to the vehicle .. .. .	13 accidents (none fatal).
(c) Direction unknown .. .. .	8 accidents (none fatal).

Crossing the road—

(a) At an authorized pedestrian crossing .. .. .	41 accidents (2 fatal).
(b) Elsewhere .. .. .	635 accidents (34 fatal).
Child playing on the road .. .. .	13 accidents (1 fatal).
Standing on the road .. .. .	15 accidents (3 fatal).
Action not reported .. .. .	71 accidents (3 fatal).

Of all types of accidents the main causes on the part of the motorist were as follows :—

Failure to give way to another vehicle .. .. .	623 cases.
Failure to keep to the left—	
(a) Cutting corner .. .. .	197 cases.
(b) Swinging out on a bend .. .. .	104 cases.
(c) Elsewhere than on a bend .. .. .	150 cases.
Driver inattentive or attention diverted .. .. .	365 cases.
Excessive speed under the conditions .. .. .	300 cases.
Skidding .. .. .	170 cases.

Motor-vehicle faults were—

Failure of steering gear .. .. .	34 cases.
Tire burst .. .. .	30 cases.
Inadequate or no headlights .. .. .	27 cases.
Dazzling headlights .. .. .	27 cases.
Defective brakes .. .. .	27 cases.

Faults attributed to the road were as follows :—

Road surface slippery from rain, frost, or other weather conditions .. .. .	20 cases.
Inadequate view .. .. .	15 cases.
Excessive loose metal .. .. .	13 cases.
Narrow road .. .. .	13 cases.

#### (h) The Liquor Factor.

Previously the only statistics obtained in regard to the influence of liquor as a factor in accidents was in cases where intoxication of the driver was judged to be a cause of accident. Last year, however, if the driver of a motor-vehicle involved in an accident was to any extent under the influence of liquor the police were asked to enter that fact on the report, even though it could not be stated to be a cause of the accident. The following tables have been compiled from the reports received.

TABLE M.—THE TYPE OF MOTOR ACCIDENTS WHERE DRIVERS WERE INTOXICATED OR OTHERWISE INFLUENCED BY LIQUOR TO SOME EXTENT.

Type of Accident.	Number of Accidents.								
	Where Driver was Intoxicated.			Other Accidents where Driver was influenced by Liquor.			All Accidents where Driver was under Influence of Liquor.		
	Fatal.	Non-fatal.	Total.	Fatal.	Non-fatal.	Total.	Fatal.	Non-fatal.	Total.
Collisions with—									
Another motor-vehicle ..	3	27	30	6	42	48	9	69	78
Railway train ..	..	..	..	..	1	1	..	1	1
Electric tram ..	..	1	1	..	2	2	..	3	3
Bicyclist ..	1	9	10	..	20	20	1	29	30
Pedestrian ..	1	5	6	1	4	5	2	9	11
Horse-vehicle ..	1	1	2	..	..	..	1	1	2
Ridden horse ..	..	1	1	..	..	..	..	1	1
Telegraph or power pole ..	3	7	10	..	11	11	3	18	21
Other collisions ..	..	8	8	..	7	7	..	15	15
Total collisions ..	9	59	68	7	87	94	16	146	162
Non-collisions—									
Drove off road ..	2	7	9	1	8	9	3	15	18
Over the bank ..	1	3	4	2	4	6	3	7	10
Overtaken on road ..	2	2	4	3	3	6	5	5	10
Person fell from vehicle ..	..	..	..	..	1	1	..	1	1
Other ..	..	..	..	..	1	1	..	1	1
Total, non-collisions ..	5	12	17	6	17	23	11	29	40
Total accidents ..	14	71	85	13	104	117	27	175	202

TABLE N.—THE LOCATION OF MOTOR ACCIDENTS WHERE DRIVERS WERE INTOXICATED OR OTHERWISE INFLUENCED BY LIQUOR TO SOME EXTENT.

Location of Accident.	Number of Accidents.								
	Where Driver was Intoxicated.			Other Accidents where Driver was influenced by Liquor.			All Accidents where Driver was under Influence of Liquor.		
	Fatal.	Non-fatal.	Total.	Fatal.	Non-fatal.	Total.	Fatal.	Non-fatal.	Total.
Auckland Metropolitan Area ..	1	10	11	1	9	10	2	19	21
Wellington Metropolitan Area ..	..	1	1	1	6	7	1	7	8
Christchurch Metropolitan Area ..	2	3	5	..	12	12	2	15	17
Dunedin Metropolitan Area ..	1	1	2	..	2	2	1	3	4
Other cities and large boroughs ..	1	5	6	1	23	24	2	28	30
Small boroughs and town districts ..	1	6	7	..	6	6	1	12	13
Closely populated localities ..	..	..	..	..	2	2	..	2	2
Total urban ..	6	26	32	3	60	63	9	86	95
Rural roads—									
North Island ..	6	29	35	10	31	41	16	60	76
South Island ..	2	16	18	..	13	13	2	29	31
Totals for New Zealand ..	14	71	85	13	104	117	27	175	202

TABLE O. THE DAY AND TIME OF OCCURRENCE OF MOTOR ACCIDENTS WHERE DRIVERS WERE INTOXICATED OR OTHERWISE INFLUENCED BY LIQUOR TO SOME EXTENT.

Hour of Day.	Number of Accidents where Driver was Intoxicated or influenced to some extent by Liquor.			
	Week-days (Mon. to Fri.).	Saturdays.	Sundays.	Total.
Midnight to 1 a.m.	4	2	4	10
1 a.m. to 2 a.m.	3	..	2	5
2 a.m. to 3 a.m.	1	1	3	5
3 a.m. to 4 a.m.	1	..	3	4
4 a.m. to 5 a.m.	1	1	1	3
5 a.m. to 6 a.m.	..	..	..	..
6 a.m. to 7 a.m.	2	..	1	3
7 a.m. to 8 a.m.	..	..	..	..
8 a.m. to 9 a.m.	..	..	..	..
9 a.m. to 10 a.m.	1	..	..	1
10 a.m. to 11 a.m.	..	..	1	1
11 a.m. to noon ..	..	1	..	1
Noon to 1 p.m. ..	1	..	..	1
1 p.m. to 2 p.m.	3	1	1	5
2 p.m. to 3 p.m.	..	2	..	2
3 p.m. to 4 p.m.	8	2	..	10
4 p.m. to 5 p.m.	2	7	2	11
5 p.m. to 6 p.m.	10	16	2	28
6 p.m. to 7 p.m.	15	13	5	33
7 p.m. to 8 p.m.	6	16	1	23
8 p.m. to 9 p.m.	4	8	4	16
9 p.m. to 10 p.m.	6	3	..	9
10 p.m. to 11 p.m.	8	5	..	13
11 p.m. to midnight	10	6	2	18
Total .. .. .	86	84	32	202

As well as accidents caused mainly by intoxication of motorists (65) and of pedestrians (31) there were 5 instances of intoxicated bicyclists causing the accident.

The following main facts emerge from a study of the foregoing tables relating to driving when under the influence of liquor :

- (i) While the severity of all accidents is represented by 1 fatal accident for every 18 or 19 non-fatal, in cases where the driver was to some extent under the influence of liquor 1 accident in 8 was fatal. Where the driver was definitely intoxicated, every sixth accident proved fatal.
- (ii) Collisions with another motor-vehicle are the predominant type of accident, while there were also 55 instances where no other road user was involved. Collisions with bicyclists were frequent, also collisions with telegraph poles.
- (iii) More than half these accidents happened on the country highways.
- (iv) These accidents were most frequent during the evening hours, mainly from 5 p.m. to 9 p.m., but also to a lesser extent until after midnight.
- (v) Of all the accidents involving liquor 42½ per cent. occurred between 4 p.m. Saturday and 4 a.m. Sunday.

Of the 202 accidents the condition of intoxication was stated to be the main cause of accident in 65 instances. Of the remainder, the most frequent causes were found to be :

- (i) Excessive speed .. .. . 30 instances.
- (ii) Failure to keep to the correct side .. .. . 26 instances.
- (iii) Inattention .. .. . 23 instances.
- (iv) Failure to give way .. .. . 14 instances.
- (v) Passing other vehicle negligently .. .. . 9 instances.

When these causes are compared with the most frequent causes for all accidents it is found that excessive speed is a much more prominent factor where the driver is affected by liquor than it is in general.

(i) Departmental Action based on Accident Statistics.

(1) *Accident Maps for Selective Enforcement.*—In order to identify the sections of road and particular locations where accidents are most frequent accident maps have been maintained in respect of accidents on the rural roads. It is obvious that with a limited staff of Traffic Inspectors it has been necessary to adopt a policy of selective enforcement consisting of concentrating the Inspectors where accidents are most frequent. The information revealed by the maps is used to direct the activities of the

Department's traffic staff to the roads which should receive particular attention. Particulars are afforded also of the hours when accidents are most frequent and the type of accident and the nature of driving faults to be expected.

(2) *Individual Road Hazards.* Where the accident reports reveal individual road hazards such as obstruction to visibility, excessive loose metal, or other less common faults, the local authority controlling the road in question is advised of the report in order that investigations may be made and, wherever possible, the specific fault may be remedied.

(3) *Particulars to Local Authorities.*—Brief particulars of the accidents in their particular areas are furnished also to the city and larger borough authorities. In this way these local authorities are kept in touch with the features of the accident position which most affect them, and may direct their preventive measures accordingly.

(4) *Accident Repeaters.* A register is maintained of all drivers involved in reported accidents. Where the same individual appears more than once in the records inquiries are made with a view to ascertaining whether he is prone to accident. As might be expected, many of the drivers who have had more than one accident involving injury to some person within the two years that the record has been kept appear to have committed no breach of the regulations. However, it is recognized that there is a certain class of person and these are not confined to drivers of motor-vehicles—who seem to have the faculty of being unable to avoid accidents. In the case of a driver there may be some specific fault in his driving of which he is probably unaware, but which can be corrected when once identified. On the other hand, there are some drivers on the road who are by reason of their temperament and physical or mental make-up quite unfitted ever to be in charge of a vehicle.

As illustrations of the types of drivers who are gradually being located and identified as a result of the inquiries made on the strength of their accident records, the following cases are quoted, necessarily without details which would provide means of identification:

*Case A.* aged 23, was involved in a collision with another vehicle at an intersection, and a little over a year later he capsized the car he was driving. This driver revealed a complete lack of knowledge of the most elementary traffic rules, and could not read or interpret a traffic sign. Although driving a car daily his low mentality and very poor driving co-ordination renders him quite unfit to be in charge of a motor-vehicle.

*Case B.* aged 19, had two accidents within fifteen months, and has been convicted of negligent driving. He is reported as an irresponsible type lacking in knowledge of the regulations and of correct methods of driving.

*Case C.* aged twenty, has since 1937 been involved in three accidents, two of which resulted in the death of a second person. Although charged with negligent driving he was acquitted and is still eligible to drive without any question being raised of his competence to hold a license.

*Case D.* This driver, aged thirty-four years, was involved in two accidents within a few months, in connection with one of which he was convicted of failure to give way to another vehicle. The interviewing officer reports a tendency for excessive speed coupled with inexperience in driving.

*Case E.* aged nineteen years, has been involved in two accidents, and has been twice convicted of speeding. He is reported as being of low intelligence and slow mental reaction.

*Case F.* aged twenty-three years, has held a driving license for two years and been involved in three major accidents and several other minor ones. The interviewing officer gives his opinion that this man is definitely accident-prone.

*Case G.* a motor-cyclist aged thirty-seven, was involved in two collisions. Later his license was cancelled on being convicted for being intoxicated in charge of a motor-cycle.

*Case H.* aged thirty-two, was involved in two collisions within a year. The local Inspector reported that he had been under observation for some time and that his license was cancelled following conviction for intoxication on the occasion of the second accident. He was later again convicted—this time of dangerous driving and driving without a license.

*Case I.* aged twenty-two, was involved in three accidents within a comparatively few months. On inquiry it was ascertained that this man is reputed to be mentally deficient.

*Case J.* a motor-cyclist aged twenty-two years, was involved in three accidents in less than a year. On inquiry it was found that he had been warned by his employers after his third accident that his position would be prejudiced if he did not dispose of his machine.

There is at present no legislative power enabling traffic authorities to review the licenses of drivers of this type. At the present time, unless found by the Courts to be guilty of a serious breach—and in many cases no such breach has been committed or if committed cannot be proved—such drivers continue as a menace to other users of the road, simply by their general inability to safely control their motor vehicles on the common highway.

#### D. ENFORCEMENT OF TRAFFIC LAWS.

##### (1) GENERAL.

All branches of activity associated with the enforcement of traffic laws showed considerable expansion in activity during the year. The total number of officers engaged by the Government and local authorities for traffic control increased, the number of "warnings without prosecutions" issued by the Department's Inspectors increased substantially, and the number of convictions recorded in the Courts for traffic offences was 24,322, or 36 per cent. above the number for 1937 (17,814).



Until recently the traffic control staff of the Department was employed on rural roads only. During the year arrangements were made with thirty-one boroughs whereby the Department took over the control of traffic within their boundaries, each Council paying an agreed-upon sum in respect of the services rendered.

Seven additional Inspectors were appointed during the year, bringing the total number as at 31st March, 1939, to 60.

#### (2) CONVICTIONS FOR TRAFFIC OFFENCES.

Table No. 9 in the Appendix sets forth a classification of the convictions for the principal traffic offences recorded in the Magistrates' and Supreme Courts during the last ten years. These figures cover the prosecutions taken by the Police Force, local-body Traffic Inspectors, and the Traffic Force of this Department. The figures for 1938 exclude Children's Court cases, which are included in the figures for previous years.

The number of convictions per 1,000 motor-vehicles rose from 68 in 1937 to 83 in 1938, and is now higher than at any other period during the last eight years.

In the detailed analysis of the offences it is interesting to note that

- (a) In 1938 685 drivers were convicted of being drunk in charge of a motor-car, against 573 in the previous year.
- (b) Convictions for negligent driving rose from 3,744 in 1937 to 4,523 in 1938.
- (c) Excessive speed in motor-vehicles accounted for 2,855 convictions, in comparison with 1,587 in 1937.
- (d) Breaches of the parking regulations caused 3,547 convictions, in contrast with 2,161 in the previous year.
- (e) A heavy increase occurred in convictions for minor traffic offences, which increased from 1,587 to 5,237.

#### (3) ENFORCEMENT OF TRAFFIC LAWS BY THE TRANSPORT DEPARTMENT.

##### (a) *General Enforcement Work.*

The staff has been located at suitable headquarters throughout the country, and each man has a definite area to patrol. This permits each officer to become fully acquainted with the area he is covering, and enables his patrols to be regulated according to the traffic flow.

On special occasions, such as race meetings, shows, and other important events, where there is a heavy volume of traffic, special patrol duties are performed and the traffic flow regulated to the best advantage.

On the road-safety side, several of the officers spent a considerable amount of time in giving lectures and instruction in safe driving and in the distribution of safety posters in suitable localities.

During the ten-monthly period, June, 1938, to March, 1939 (no record was kept for April and May) the patrols covered over 1,168,000 miles, issued verbal or written warnings for 33,000 offences, weighed 5,370 vehicles for suspected overloading, and tested nearly 3,800 people for drivers' licenses. In addition, during the full year 10,435 of the more serious offences were reported.

##### (b) *Traffic Offence Bureau.*

Full details of the results of the year's operations under the scheme of traffic-offence notices and a central bureau are set out in Table No. 11.

It has been found that the system has been working very satisfactorily, and as from the 1st January, 1939, arrangements were made to obtain full details of traffic-offence notices issued by all local-body Traffic Inspectors and by the Police Department. Thus the bureau will now have complete records of all the traffic-offence notices issued in the Dominion.

##### (c) *Prosecutions.*

During the year ending 31st March, 1939, some 7,582 informations were laid by the Department in respect of breaches of the laws relating to motor traffic. Convictions were obtained in 7,298 cases and the Courts imposed fines (exclusive of costs) totalling £10,748. In 112 instances the cases were dismissed by the Court, and in 172 cases the informations were withdrawn. Full details of these cases are included in Table No. 10.

##### (d) *Late Inspector Allcock.*

It is with deep regret that record is made of the death of the late Traffic Inspector T. H. Allcock, who was accidentally killed while on duty in the Rotorua district on Christmas Eve. Inspector Allcock was a very promising officer.

#### E. INSPECTION OF MOTOR VEHICLES.

All motor-vehicles operated in the Dominion are required to undergo periodical mechanical inspection, the work being classified into three main divisions:—

Inspection of—

- (1) Passenger-vehicles under Transport Licensing Act.
- (2) Goods-vehicles under Transport Licensing Act.
- (3) Other vehicles.

(1) *Passenger-vehicles under Transport Licensing Act.*—This class embraces all vehicles used for the carriage of passengers for hire or reward which were brought under the Transport Licensing Act, and includes omnibuses, service cars, passenger trucks, school buses, and the taxis at Hamilton and Thames. These vehicles are examined by officers of the Department specially appointed for the purpose. The examination is a thorough one, and all matters which are likely to prejudice the safety, health, or comfort of the passengers are carefully considered. A certificate of fitness, showing the number of passengers which the vehicle has been authorized to carry, must be exhibited within these vehicles.

By perusing plans of proposed vehicles and giving supervision during their construction the Department ensures that all new vehicles will comply with the relevant constructional requirements and modern trend in design. This co-operation eliminates unnecessary expense and delay in placing the vehicle in service. In this manner 288 new vehicles were constructed during the past year.

The following is the distribution of vehicles in the four licensing districts which were newly constructed, condemned, or voluntarily withdrawn.

District.	(1) Auckland.	(2) Wellington.	(3) Christchurch.	(4) Dunedin.	Total.
(a) Newly constructed .. ..	97	85	70	36	288
(b) Condemned .. ..	30	42	18	7	97
(c) Voluntarily withdrawn .. ..	295	199	141	101	736

During the year 783 new applications for Certificates of Fitness and 171 applications for temporary permits were received.

Since December, 1936, all school buses have been required to undergo periodic inspection, and the work during the past year has entailed the examination of 542 vehicles. In this respect it may be stated that the principal consideration is given to the matters which are likely to prejudice the health and safety of the children.

Tabulated below is a statistical survey of these passenger-vehicles which are inspected by the Department as at 31st March, 1939 :

District.	Ambulances.	School Vehicles.	School Buses.	Omnibuses.	Service Cars.	Service Coaches.	Motor Cabs.	Passenger Trucks.	Total.
Auckland .. ..	24	41	151	261	180	47	41	197	942
Wellington .. ..	33	50	96	237	190	13	..	102	721
Christchurch .. ..	17	15	92	104	79	16	3	79	405
Dunedin .. ..	12	19	78	89	92	9	..	15	314
Totals for New Zealand ..	86	125	417	691	541	85	44	393	2,382

During the year the following exemption was granted to motor-cars conveying school-children to school :—

“Any motor-car as defined in section 2 of the Motor-vehicles Act, 1924, if in the carriage of passengers for hire or reward it is used solely for the transfer of school-children not exceeding seven in number and not exceeding by more than two the designed adult passenger-carrying capacity of the motor-car.

“For the purpose of this Schedule the word ‘passenger’ does not include the driver.”

It is pleasing to note that all operators have responded well to the Department's requirements, and it is considered that the standard of safety and comfort provided in passenger-carrying vehicles adequately fulfills the demands of the travelling public.

(2) *Goods-service Vehicles under Transport Licensing Act.*—During the year all goods-service vehicles licensed under the Transport Act were examined by the Vehicle Inspectors of the Department to ensure that they were maintained in a safe condition and were not unduly overloaded.

The distribution of these vehicles among the four districts in the Dominion is as follows :

District.	Number.
No. 1 : Auckland .. ..	2,174
No. 2 : Wellington .. ..	1,793
No. 3 : Christchurch .. ..	987
No. 4 : Dunedin .. ..	817
Total .. ..	5,771

Tabulated below is a statistical survey of these goods-service vehicles which are inspected by the Department, showing the improvement in the standard of fitness of the safety factors found

during the last semi-annual inspection period, 1st July, 1938, to 31st December, 1938, as compared with the first period 1st January, 1937, to 30th June, 1937, when these vehicles were first brought under the Transport Licensing Act.

Period.	Brakes.		Lights.		Steering.	Wind-screen-wiper.	Rear-vision Mirror.	Warning-device.	Door-fastenings.
	Foot.	Hand.	Head.	Tail.					
	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
1/1/37 to 30/6/37	16	17	9	28	30	18	20	7	6
1/7/38 to 31/12/38 ..	12	11·2	10·2	18	22·8	4	6·7	5·1	1·8

(3) *Other Vehicles*.—A system of compulsory semi-annual inspection of all motor-vehicles other than those under (1) and (2) was introduced into the Dominion during the year 1937, and this inspection is in the main being executed by 1,435 approved motor garages. At the onset an understanding was given that at the expiry of two years the city authorities where the population exceeds 20,000, or where the number of registered vehicles exceeds 4,000, that had the necessary facilities to undertake all the inspection work in their areas would be made the sole examining authorities in those areas.

Some of the larger cities have already made, or are making, arrangements to install special equipment which will enable them to deal satisfactorily with the inspection of all vehicles in their areas.

The inspection of a motor-vehicle for a Warrant of Fitness involves a check of brakes, lights, steering, wheel-alignment, windscreen-wiper, rear-vision mirror, warning-device, and door-fastenings.

The following gives the number of warrants issued to motor-vehicles and the percentage “correct in every detail” for each period since the regulation has been in force :—

Period ending						No. of Warrants issued.	Percentage Correct in every Detail.
September, 1937	..	..	..	..	..	178,354	21
March, 1938	..	..	..	..	..	188,711	45
September, 1938	..	..	..	..	..	198,482	53
March, 1939	..	..	..	..	..	204,892	55

The following table gives the percentages of defects as revealed by the inspections:

Period.		Brakes.		Lights.		Steering.	Wind-screen-wiper.	Rear-vision Mirror.	Warning-device.	Door-fastenings.
		Foot.	Hand.	Head.	Tail.					
1937.		Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
1st ..	..	30	28	70	17	16	17	6	4	3
2nd ..	..	21	19	33	10	10	7	2	3	2
1938.		Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
1st ..	..	21	23	23	9	8	6	1·5	3	1·5
2nd ..	..	24	23	19	9	9	5	1·5	3	1·5

From a perusal of these figures it is evident that almost every detail involved in the inspection has shown an improvement during the various six-monthly periods, but the figures also indicate the necessity for the test being conducted periodically.

The inspection of motor-cycles for a Warrant of Fitness includes a check of brakes, lights, steering-gear, silencer, foot-rests, and warning-device.

The following gives the percentage of defects revealed by the inspection of motor-cycles :—

Period.		Brakes.	Lights.		Steering, &c.	Silencer.	Foot-rests.	Warning-device.
			Head.	Tail.				
1937.		Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
First ..	..	9	29	20	3	8	3	9
Second ..	..	6	15	13	1	3	2	4
1938.		Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
First ..	..	5	12	11	2	2·5	2	4
Second ..	..	4	9	9	1	2	1·5	4

It may be stated that the manner in which the motoring public has co-operated with the Government in the policy of regular vehicle inspection indicates that it is fully appreciative of the efforts being made to reduce road accidents to a minimum.

## 5. MOTOR-VEHICLES INSURANCE (THIRD-PARTY RISKS) ACT, 1928.

### A. STATISTICS.

The Motor-vehicles Insurance (Third-party Risks) Act passed in 1928 compels every owner of a motor-vehicle to insure against liability to pay damages on account of the death or injury to another person caused through the use of a motor-vehicle.

Payment of the insurance premiums is made annually to the Deputy Registrars of Motor-vehicles simultaneously with that of the annual license fee payable under the Motor-vehicles Act. Owners of motor-vehicles are required to nominate each year the insurance company with which the contract of insurance is to be made.

For the year ended 31st May, 1938, forty-one insurance concerns gave the prescribed notice to undertake business under the Act, and carried on business accordingly. The following table shows the experience of the scheme during the nine years ended 31st May, 1938. The figures for claims do not represent the amount paid during each year, but refer to accidents happening during each particular period.

Year ended 31st May,					Revenue from Premiums.	Claims paid and Estimated Liability for Claims outstanding at 31st May.	Claim Ratio.
					£	£	Per Cent.
1930	..	..	..	..	235,007	202,380	86·12
1931	..	..	..	..	242,864	186,379	76·74
1932	..	..	..	..	233,731	161,217	68·98
1933	..	..	..	..	229,133	137,013	59·80
1934	..	..	..	..	221,734	166,648	75·15
1935	..	..	..	..	211,709	230,626	108·93
1936	..	..	..	..	230,696	264,700	114·73
1937	..	..	..	..	257,559	331,134	128·56
1938	..	..	..	..	289,891	432,352	149·14
Totals	..	..	..	..	2,152,324	2,112,449	98·14

### B. ANNUAL REVIEW OF PREMIUM RATES.

Section 16 of the Act provides that the amount of the premiums to be paid in respect of third-party insurance may be fixed from time to time by Order in Council.

In accordance with the usual practice, the financial operations of the companies undertaking this class of insurance were carefully examined, and it was decided to make the following alterations to the premiums for the year 1939-40.

Class.	Old Premiums.	New Premiums.
Increases—	£ s. d.	£ s. d.
Class 4 .. .. .	1 0 0	1 6 0
Class 5 .. .. .	2 8 0	2 13 0
Class 6 .. .. .	1 10 0	1 18 0
Class 8A—		
Class 8A : Public motor-cabs ..	7 10 0	10 0 0
Class 8AB : Private motor-cabs ..	..	7 10 0
Class 8D—		
Up to ten seats (including driver) ..	2 5 0	3 0 0
For every seat in excess of ten ..	0 2 0	0 2 0
Maximum premium payable ..	4 0 0	4 12 0
Decreases—		
Class 8B—		
Up to ten seats (including driver) ..	6 0 0	6 0 0
For every seat in excess of ten ..	0 2 6	0 2 0
Maximum premium payable ..	8 0 0	7 12 0
Class 8C—		
Up to seven seats (including driver) ..	6 0 0	6 0 0
For every seat in excess of seven ..	0 7 6	0 4 0
Maximum premium payable ..	9 7 6	7 16 0

## C. "HIT-AND-RUN" DRIVERS.

The table hereunder indicates the number of claims and the amounts paid out under the agreement which was gazetted on the 29th October, 1931, at page 3023, and which relates to third-party insurance to cover the damage resulting from death or injuries due to the negligence of such drivers.

Although the numbers of claims arising out of this type of accident show only a small reduction since 1936, when heavier penalties came into force, this is probably due to its being more widely known that a claim for damages may be made under the above agreement.

Table of Claims.

Year ending 31st May,				Number of Accidents for which Claims made.	Amount paid to Claimants.			Expenses incurred in handling Claims.		
					£	s.	d.	£	s.	d.
1932 (five months only)	..	..	..	5	595	0	0	145	3	6
1933	..	..	..	11	885	8	0	144	8	7
1934	..	..	..	12	720	2	6	151	10	10
1935	..	..	..	29	1,661	11	4	327	8	4
1936	..	..	..	38	1,224	9	6	517	5	2
1937	..	..	..	37	1,753	3	6	249	7	3
1938	..	..	..	25	1,557	2	10	133	2	8
1939	..	..	..	36	168	7	6*	45	8	9*

\*Incomplete.

## 6. REGULATION OF COMMERCIAL ROAD TRANSPORT.

## TRANSPORT LICENSING ACT, 1931.

## A. PASSENGER SERVICES.

The degree of stability that has been attained in the passenger-service industry is reflected to some extent in the work of the Licensing Authorities for the year ended 31st March, 1939. Some 249 applications were considered for the renewal of passenger-service licenses, and, excepting for five applications which have been held up for further consideration, all the licenses were renewed. Included in these applications were the first of the licenses issued in 1935 for a three-year term.

Table No. 12 sets out full details of the applications for new licenses, amendments to licenses, and transfers of licenses dealt with by the Licensing Authorities during the year.

## (1) APPLICATIONS FOR NEW LICENSES.

Some 187 applications were dealt with by the four District Licensing Authorities and 7 by the Metropolitan Authorities. Of these, 124 were granted, mainly for contract licenses, 23 were refused, and 35 were adjourned for further consideration.

## (2) APPLICATIONS FOR AMENDMENTS TO LICENSES.

Of the 251 amendment applications received for the variation of the terms and conditions of licenses in force, 212 applications were granted, 2 were refused, and 31 adjourned.

## (3) APPLICATIONS FOR TRANSFER OF LICENSES.

During the year 54 applications were considered for the transfer of licenses, 53 of the applications being granted and 1 adjourned.

## (4) TEMPORARY LICENSES ISSUED.

The figures for temporary licenses issued, which are not shown in Table No. 12, are set out hereunder, together with comparative figures for the previous two years:—

Area.					Year ending 31st March,		
					1937.	1938.	1939.
No. 1 Licensing District	..	..	..	..	1,153	1,749	2,066
No. 2 Licensing District	..	..	..	..	976	1,179	1,189
No. 3 Licensing District	..	..	..	..	441	913	574
No. 4 Licensing District	..	..	..	..	438	1,028	1,072
Auckland Transport Board District	..	..	..	..	1,660	2,167	2,393
Wellington Metropolitan Area	..	..	..	..	..	..	2
Christchurch Metropolitan Area	..	..	..	..	4	..	..
Dunedin Metropolitan Area	..	..	..	..	3	13	2
Total	..	..	..	..	4,675	7,019	7,298

## (5) PASSENGER-SERVICE LICENSES IN FORCE.

At the end of March, 1939, there were 774 passenger services licensed in the four licensing districts, and 74 in the four metropolitan areas, making a total of 848 passenger services licensed under the Transport Act in the Dominion.

## (6) REVIEW OF LICENSES.

During the year a careful survey was made of passenger fares, parcel rates, and finances of all passenger-services with a view to ensuring that the public was receiving its proper share of the benefits that accrue from the licensing system.

Following on this review the fares on a number of services were considered by the Licensing Authorities resulting in fares being reduced in several instances. Further reviews of this nature are in train, and it is hoped that during 1939 all the services requiring review will have been considered.

## (7) INSPECTION OF ACCOUNTS AND RECORDS.

The normal routine work of the accountant inspectors attached to the district offices of the Department includes the inspection of the accounts and records of operators, partly to maintain a check on their operations, but mainly to give them whatever advice is necessary to help the licensees to keep reliable figures.

During the year 67 services were inspected.

## (8) FINANCES AND STATISTICS, 1937-38.

Tables No. 13 to 19 set out the position of passenger-services licensed under the Transport Licensing Act (excluding those licensed by the four Metropolitan Licensing Authorities) for the year ended 31st March, 1938.

It will be remembered that it was not possible to publish these figures in the 1938 report owing to the report being required earlier than was usual. A similar set of circumstances makes it impossible for the figures for 1938-39 to be included in this report, and arrangements will again be made to publish them at a later date.

Before being included in the statistics all returns have been carefully checked and certain adjustments made. The most important of these are in respect of depreciation, drawings in lieu of wages, and overhead. Depreciation has been allowed at rates varying from 10 per cent. to 20 per cent., according to the annual mileage run and type of service and vehicles involved. Drawings in lieu of wages have in every case been adjusted so that the operator is credited with a reward equivalent to award wages (at 1937-38 rates) for the work he does. An allowance for management has been included in the overhead charges. Any amount shown for interest has been omitted, whether actually paid or not. Thus the net surplus shown is the gross return on the total capital invested and is independent of the method of financing the business. Other minor adjustments have been made where it was considered that the figures as returned did not represent the normal cost of carrying on the business.

Revenue derived from activities outside those of operating a passenger-service has been excluded as far as possible. It is difficult, however, to do this with complete accuracy. Returns which show a large amount of "other revenue" or revenue earned mainly in respect of goods carting have been omitted from Table No. 17, though they are included in the "unclassified" group in Table No. 16.

(a) *Classification of Services.*

For the purpose of arriving at representative average figures the services have been divided into groups of services which operate under more or less similar working-conditions and whose operating expenses and revenue are more or less comparable. The basis of this classification is as follows:—

(i) *Services operated by Private Enterprise:—*

Group 1: Buses used in borough and suburban services.

Group 2: Buses and mixed fleets running between local centres and surrounding districts.

Group 3: Service cars, deriving most of their revenue from passenger fares and operating over a medium distance.

Group 4: Service cars whose revenue from passenger fares does not exceed 50 per cent. of their total revenue (chiefly rural mail contractors).

Group 5: Buses, service coaches, and mixed fleets running between main towns.

(ii) *Services Operated by the State and by Local Authorities:—*

Group 6: Services operated by local bodies.

Group 7: Services operated by the New Zealand Railways Road Services.

Unclassified: Services not coming within the above classification (*e.g.*, school buses, passenger-trucks, baby cars, &c.), returns which appear to be inaccurate, incomplete returns, returns including revenue or expenses due to other operations in cases where no reliable apportionment can be made.

The division between the groups has had to be made in a somewhat arbitrary manner as there are no hard-and-fast differences between one class of service and another. Thus the conditions of operation of Groups 1 and 2 and of Groups 3, 4, and 5 are similar in a number of respects, but it is considered that there are sufficient differences to justify the grouping adopted, and care has been taken to make the grouping as consistent as possible.

It will be noted that services operated by the New Zealand Railways have been grouped separately. This has been done because separate figures relating to the various routes covered were not available. Services operated by local authorities are all of the same general type as those included in Group 1, but as method of finance and conditions of operation are somewhat different and in some cases the services are operated as feeders to tramway undertakings it has been considered desirable to show them separately.

As the purpose of the classification is to arrive at the most representative figures obtainable a number of returns were included as "unclassified," either because they were obviously not accurate or because the services involved could not be brought within the grouping. These returns have, however, been included in all the tables except No. 17. Contract work where it was shown on a separate return has been included in the "unclassified" group. Where contract work is undertaken by a licensee who also operates a route service and costs and revenue for the former have not been separated the contract figures are included in the classified groupings, together with the figures for the route service.

*(b) General Position of the Industry. (Tables Nos. 13 to 15.)*

The general results of operations of the industry are summed up in Table No. 13, where comparative figures for the last six years are given. It will be seen that nearly all the figures show an increase on those for the previous year. The number of passengers carried has risen to a new high level from 21,500,000 in 1936-37 to 23,300,000 in 1937-38, or by 8·4 per cent.; the number of vehicle-miles has increased from 22,800,000 in 1936-37 to 23,500,000 in 1937-38, or by 3 per cent.; revenue advanced from £1,058,000 in 1936-37 to £1,147,212 in 1937-38, an increase of 8·8 per cent., while profits rose from £109,000 to £117,346 in 1937-38, an increase of 6·9 per cent.

As shown by Table No. 14, operating-costs have increased by 0·51d. per mile, but this has been more than offset by an increase of 0·58d. per mile in revenue. It will be seen that passenger revenue has risen by 0·65d. per mile, the other items of revenue, with the exception of that from newspapers, having declined slightly. Profit was equal to 10·23 per cent. of turnover and has remained fairly steady for the last three years, which is an indication that the industry has reached a position of stability in regard to its earning-power.

Financially the road transport (passenger) industry is in a sound position. The relevant details are set out in Tables Nos. 15 and 19. The total investment is over £1,000,000, of which vehicles comprise just over one-half. For the year 1937-38 there has been a considerable increase in the value of vehicles used, 123 new vehicles having been put on the road. Investment in other fixed assets—land and buildings and plant—has also increased. This increased investment in fixed assets has been to some extent offset by a reduction in floating assets—stocks, debtors, and cash on hand—but there has also been a substantial increase in the total investment as compared with the previous year. This has been financed partly by increased borrowing "outside" liabilities having risen from £241,000 in 1936-37 to £255,000 in 1937-38—but to a greater extent from the industry's own resources. The proportion of capital and reserves to total liabilities for the year under review is 76 per cent. as compared with 71 per cent. for the previous year.

*(c) Operations of Particular Types of Services. (Table No. 16.)*

The arrangement of different types of services into groups enables comparisons to be made between one type and another, and also provides typical cost figures which operators may use as a check on their own results.

It will be seen that services operated by the New Zealand Railways and municipal authorities (Groups 6 and 7) earn between them approximately 28 per cent. of the total revenue, account for 24 per cent. of the mileage run, and approximately 36 per cent. of the total passenger-journeys. The balance represents services owned and operated by private enterprise. For further details of services comprised in Group 7 (New Zealand Railway Road Services) the annual report for 1938 of the General Manager of Railways may be consulted. It will be noticed that the figures shown do not agree with those published in that report due to the fact that certain revenue and expenditure items have been adjusted in accordance with the principles outlined above. As pointed out previously, this group includes a number of services of different types, so that results are not directly comparable with those of other groups.

The group showing the best results is that comprising services running from a local centre to surrounding districts (Group 2). This group may be compared with local and suburban services (Group 1). It will be noted that the total operating-costs per vehicle-mile (see Table No. 17) are lower for the former group than for the latter. The individual items are, however, higher in most cases, the main exception being "Wages, and drawings in lieu of wages." This would seem to be due to the fact that with the longer-distance services there is on the average a higher annual mileage per driver employed than there is in the case of local and suburban services which run shorter and more frequent trips and have a greater proportion of standing-time to total time worked.

Groups No. 3 (medium distance service cars) and No. 4 (chiefly mail-services) have the lowest operating-costs per mile. This is mainly due to the fact that smaller vehicles are used and a considerable annual mileage is run. It will be noted that though the operating-costs for mail-services (Group 4) are lower than those for service cars carrying a larger proportion of passengers total revenue is not sufficient to return a profit.

Table No. 19, setting out the assets and liabilities of the various types of services, indicates the method of financing adopted by various types of services. Municipal services (Group 6) make the greatest use of specific borrowing. The hire-purchase system is of most importance to mail-services (Group 4).

With the exception of the New Zealand Railways Road Services (Class 7), which are a special case, privately-operated local and suburban services (Class 1) have the highest proportion of "own capital" to total liabilities and are in the strongest financial position.

The average fare paid per passenger-journey is shown in Table 16.

In general it may be said that the figures show that the industry has reached a position of stability, is earning good profits, has been able to improve its financial position, and is receiving a constantly increasing measure of support from the public.

B. GOODS-SERVICES.

(1) APPLICATIONS DEALT WITH.

Table No. 20 sets out the number of applications for licenses, &c., dealt with by the four District Licensing Authorities for 1938-39.

The number of temporary licenses issued are not shown in the above table. There were 10,694 such licenses issued, 5,026 in the No. 1 Licensing District, 3,130 in No. 2, 2,150 in No. 3, and 1,388 in No. 4. In the previous year, 10,970 temporary licenses were issued.

(2) LICENSES IN FORCE AND VEHICLES IN USE.

At the end of the year there were 3,161 goods-services licensed, against 2,959 at the end of the previous year. The number of licenses and the number of vehicles authorized by the licenses are set out in the following table for each licensing district:—

District.			Number of Licenses.	Distribution of Vehicle Authorities.				
				General Goods and Miscellaneous Cartage.	Public-works and Local-body Cartage.	Mail Contracts.	Cream Contracts.	Total Vehicle Authorities.
No. 1	..	..	1,334	1,834	386	76	66	2,362
No. 2	..	..	835	1,190	320	67	34	1,611
No. 3	..	..	527	735	212	62	6	1,015
No. 4	..	..	465	536	185	42	39	802
Total	..	..	3,161	4,295	1,103	247	145	5,790

In reading this table it must be understood that while the vehicles shown under "Public works, &c.," and "Mail contracts" and "Cream contracts" are licensed solely for the particular class of work mentioned, there are quite a large number under the "General goods and miscellaneous" group engaged part time on work coming under the other three headings.

(3) INSPECTION OF OPERATORS' ACCOUNTS AND RECORDS.

For the year ending 31st March the officers engaged on this work inspected the accounts and records of 1,347 operators.

(4) REVIEW OF OPERATORS' FINANCES, ETC.

The public interest requires the same protection in the goods-transport industry as in the passenger-transport industry, and, although the grounds for the review of licenses may vary somewhat, steps are being taken in the coming year to carefully consider the operations of goods operators on exactly similar lines to that adopted for the review of passenger-services.

Particular matters to which attention will be paid include inefficiency of operation, financial ability to carry on the service, and excessive profits.

(5) RATES-FIXATION.

Following on the statement of policy made in February, 1938, outlined in the annual report for that year, the Licensing Authorities have proceeded to fix rates in those areas where it has been considered advisable in the public interest to do so.



The position in each of the four licensing districts is outlined in the following table : —

District.	Work done on Rates-fixation.
No. 1 Licensing District . .	<p>Some considerable time has been necessarily spent in the zoning of areas suitable for rate-fixation. After a careful consideration of all relevant circumstances it was decided that five zones were essential. These are—</p> <ol style="list-style-type: none"> <li>(1) North Auckland, comprising all that area north of Auckland, excluding the Waitemata County.</li> <li>(2) Auckland, comprising the Waitemata, Eden, Manukau, and Franklin Counties.</li> <li>(3) South Auckland, taking in the Raglan, Kawhia, Waitomo, Otorohanga, Waipa, Waikato, Hauraki Plains, Piako, Matamata, Coromandel, Thames, and Ohinemuri Counties.</li> <li>(4) Bay of Plenty, covering the counties of Tauranga, Rotorua, Taupo, Whakatane, and Opotiki.</li> <li>(5) East Coast, taking in the counties of Matakaoa, Waipu, Uawa, Waikohu, Cook, and Wairoa.</li> </ol> <p>The carriers and the users of transport have held several meetings in an attempt to reach agreement on suitable cartage rates but without success, and the matter has been referred to the Licensing Authority for decision.</p> <p>To date fair progress has been made towards the preparation of schedules for the North Auckland and Bay of Plenty areas, and the schedules should be put into force during the coming year.</p>
No. 2 Licensing District . .	<p>In this district rates have been fixed throughout the district except in the Hawke's Bay area and in a small area around Taihape. In these two areas there are schedules in force, but as yet they have not been ratified by the Licensing Authority. The schedules that have been fixed by the Licensing Authority cover the following areas : —</p> <p>Manawatu, Northern Area : Covering counties of Kairanga, Manawatu, Oroua, Kiwitea, Pohangina, and part of the Rangitikei County. This was put into force on the 1st November, 1938. Small amendments were made to the rates on the 22nd February, 1939.</p> <p>Manawatu, Southern Area : Covering Shannon, Levin, and southern district to Paekakariki, Horowhenua, and part of Hutt County. This also was put into force on the 1st November, 1938. Slight amendments were made to the schedule in February, 1939.</p> <p>Taumarunui Area : This schedule, which came into force on the 15th December, 1938, covers the Taumarunui, Kaitieke, and Ohura Counties. Small amendments to the rates were made in March, 1939.</p> <p>Taranaki Area : This schedule covers the Taranaki Province, and came into force on the 15th February, 1939. Certain rates in this schedule were amended after a further meeting with carriers and users on the 23rd March, 1939.</p> <p>Wanganui Area : On the 24th March the schedule for this area was brought into force to cover the counties of Wanganui, Waitotara, Waimarino, southern part of Patea County, and that part of the Rangitikei County including Marton Junction and Turakina. The Para Para Road is exempt from the schedule.</p> <p>Wairarapa Area : This area takes in the counties of Akitio, Pahiatua, Eketahuna, Mauriceville, Masterton, Castlepoint, Wairarapa South, and Featherston. This schedule comes into force on the 1st April, 1939.</p>
No. 3 Licensing District . .	<p>In this district there is one rates schedule, fixed by the Licensing Authority, in operation. The area covered by the schedule extends from the Waipara River in the north to the Rangitata River in the south. This schedule was brought into force on the 1st December, 1938.</p> <p>Around Marlborough the carriers and users have agreed on a schedule, which is in force under mutual agreement. In the southern part of the district below the Rangitata River steps are being taken to include this area with the northern parts of the No. 4 Licensing District for rates-fixation.</p> <p>No attempt has been made either to fix rates or to bring about an agreement between the carriers and the users on the West Coast. Around Nelson a schedule is in operation under an agreement reached between the carriers and their customers.</p>
No. 4 Licensing District . .	<p>On the 1st January, 1939, the Licensing Authority fixed a schedule of rates to cover the whole of the No. 4 Licensing District.</p>

Generally in the areas where rates have been fixed both the carriers and users are satisfied with the schedule in force. Anomalies, of course, arise, and amendments to the schedules will probably be necessary from time to time. In the No. 2 Licensing District, for example, four schedules have already had small amendments made, while in all areas the Licensing Authorities are constantly in touch with the operators and the users to see that the rates in force are satisfactory to all.

#### (6) FINANCES AND STATISTICS, 1937-38.

As was mentioned in last year's annual report, it was not possible to include the tabulated results of the financial and traffic data for 1937-38 in that report owing to it being required earlier than usual. A similar set of circumstances has arisen again this year, and it will not be possible to publish the figures for 1938-39 until a later date.

The following review, therefore, covers the finances and statistics for 1937-38, which are set out in Tables No. 21 to 31.

The financial returns from which the figures were compiled were collected under powers conferred on the Commissioner of Transport by clause 22 of the Transport (Goods) Order 1936.

Before the returns were tabulated they were all carefully checked, particular attention being paid to the following points:—

(i) *Mileage of Vehicles in relation to Fuel consumed.*—It is not possible to accurately check this item, but a test check of the mileage against the fuel bill gives an indication as to whether the mileage is reasonably correct or not. In some cases it was found that the mileages were either grossly over or under stated.

(ii) *Depreciation of Vehicles.*—A general standard of depreciation rates was based as far as possible on general practice, and rates that varied widely from this standard were adjusted except where there appeared to be some justification for the charges made. Generally it was found that a large number of operators were inclined to under-depreciate their vehicles. The standard taken was—

Up to 18,000 miles, 15 per cent. on the original value.

18,000 to 25,000 miles, 20 per cent. on the original value.

25,000 to 30,000 miles, 25 per cent. on the original value.

A survey made of the average depreciation rate charged over the life of the vehicles in use indicated that, generally speaking, a depreciation rate of approximately 1 per cent. on the original value per 1,000 miles would be adequate under ordinary circumstances.

(iii) *Wages or Drawings in lieu of Wages.*—As with depreciation only in cases where there was a wide variance from the standard were adjustments made. In practically every case the amendments were all in owner-driven businesses with a view to bringing the costs for such concerns into line with those businesses where drivers were employed. Here the basis of the check was—

For 10,000 to 20,000 miles, £260 per annum.

For 20,000 to 30,000 miles, £300 per annum.

A certain number of returns were obviously incorrect or incomplete, and these returns were discarded.

#### (a) *General Summary of Goods-service Finances and Statistics for the Dominion compared with Previous Years.* (Table No. 21.)

Average figures per vehicle derived from the returns tabulated have been used to form an estimate of the total figures for the industry.

The figures shown in Table No. 21 for the five years 1933 to 1938, though not strictly comparable from year to year, afford a reasonably accurate guide to the progress of the industry.

Generally it will be seen that the industry continues to make steady progress, nearly all the figures for the year under review showing an increase on those for the previous year.

The bringing of cream-carriers and public-works and local-body contractors under the Transport Licensing Act has been largely responsible for the 30-per-cent. increase in the number of vehicle authorities from 3,733 in 1936-37 to 3,859 in 1937-38.

Despite the large increase in the number of vehicles, the total revenue shows a more than proportionate increase of 35 per cent., from £2,680,000 to £3,580,000, and raises the average revenue per vehicle from £713 to £737. In the first year of transport-control (1933-34) the total revenue was £1,640,000, or less than half that shown for the year under review.

Costs of operation also show a large increase, advancing from £2,310,000 to £3,160,000, or by 37 per cent. This raises the average annual cost of operating per vehicle from £614 to £650.

Total profits have also risen, reaching the new total of £425,000, against £371,000 in the previous year and £176,000 in 1933-34. In this connection it is interesting to note the trend in the average profits per vehicle over the past five years:—

						£
1933-34 profit per vehicle	..	..	..	..	..	60
1934-35 profit per vehicle	..	..	..	..	..	64
1935-36 profit per vehicle	..	..	..	..	..	79
1936-37 profit per vehicle	..	..	..	..	..	99
1937-38 profit per vehicle	..	..	..	..	..	87

It will be noted that for the year under review the profit per vehicle has fallen to £87 from £99 in the previous year. This is quite probably due to the increase in the average " wage " for employee and owner-driver alike, which rose from approximately £220 to £240.

The total mileage travelled by goods-service vehicles was over 70,000,000 miles, against 57,000,000 in 1936-37. The average cost of operation per vehicle-mile has risen from 9·88d. to 10·99d., while the revenue per vehicle-mile has advanced to 12·19d. from 11·35d.

There has been a falling off in the average mileage per vehicle from 15,100 miles to 14,500 miles. This last figure rises to 14,800 miles, when the public-works and local-body contractors are excluded.

The balance-sheet for the industry once again shows a healthy position. Of the total value of assets employed (£3,652,000) some £2,445,000, or 67 per cent., represents operators' capital. Comparative figures for the previous year were £2,532,000, £1,771,000, and 69 per cent. The average figure for the assets employed in each business also shows an increase from £1,199 to £1,290.

The average net profit represents a return of approximately 13½ per cent. on the total capital invested in each business. In 1936-37 this figure was 14½ per cent.

Of the total revenue for 1937-38 it will be noted that the North Island accounts for £2,533,000 against £1,050,000 for the South Island, while the total capital invested in the northern services was £2,425,000 and in the southern services £1,227,000.

The figures for the North Island services show a lower cost per mile than those in the South Island, 10·90d. against 11·17d. On the average, however, larger vehicles are used in Canterbury and Otago.

(b) Detailed Comparison of Revenue and Costs for 1937-38 with 1936-37. (Tables No. 22 and 23.)

In the more detailed comparison of operating-costs for 1937-38 with 1936-37, set out in Table 22, running-expenses per vehicle-mile for the Dominion show a 6·3-per-cent. increase for 1937-38, having risen from 3·95d. per mile in the previous year to 4·20d.

Standing charges per vehicle-mile have increased by 16·3 per cent., from 5·15d. to 5·99d., while overhead charges show an increase of 2·5 per cent., from 0·78d. to 0·80d.

The total revenue per vehicle-mile for the Dominion (Table No. 23) shows an increase of 10 per cent. on the 1936-37 figure of 11·35d., while of the individual items which go to make up the total revenue, revenue from cartage of goods shows an increase of 8·6 per cent., from 10·78d. per vehicle-mile in 1936-37 to 11·71d. in the year under review.

The individual profits per vehicle-mile for 1936-37 and 1937-38 for each of the licensing districts are set out hereunder :—

District.	Profit per Vehicle-mile.	
	1936-37.	1937-38.
	d.	d.
No. 1 .. .. .	1·30	1·21
No. 2 .. .. .	1·56	1·43
No. 3 .. .. .	1·64	1·85
No. 4 .. .. .	1·53	2·05
Dominion .. .. .	1·46	1·50

(c) General Goods Cartage, 1937-38.

For 1937-38 an attempt has been made to separate the returns under three headings—

- (a) Public-works and local-body cartage ;
- (b) Mail contractors ; and
- (c) The balance being largely operators engaged in general cartage.

Dealing with the figures for the third group, the general cartage group (Table No. 24 sets out details of the operating-costs, together with details of the average gross loading of vehicles—viz., weight of vehicle plus pay-load capacity and the average maximum pay-load capacity of vehicles for each of the four districts), it is found that there is considerable variance in the operating-costs in each of the four districts, No. 1 district showing 10·48d. per vehicle-mile ; No. 2, 11·75d. ; No. 3, 12·46d. ; and No. 4, 10·85d. This, however, though to a certain extent due to the variations in the average annual mileage per vehicle, is also affected by the variation in the average size of vehicle in use, which is illustrated in the following table, which sets out the cost per ton-mile on the basis of the average maximum pay-load capacity of vehicles :—

District.				Average Mileage per Vehicle.	Costs per Vehicle-mile.	Average Maximum Pay-load Capacity.	Average Cost per Ton Capacity per Mile.
				Miles.	d.	Tons.	d.
No. 1 .. .. .				15,885	10·48	3·03	3·46
No. 2 .. .. .				13,431	11·75	3·36	3·50
No. 3 .. .. .				12,016	12·46	3·52	3·51
No. 4 .. .. .				14,310	10·85	3·29	3·30
Dominion .. .. .				14,209	11·20	3·25	3·45

These figures are of particular interest as the average cost per-ton capacity per mile sets the absolute minimum cost for transport cartage—that is to say, if every licensed vehicle always ran with a full load and did no empty running the average cost per ton-mile would approximate to the figures set out above.

Generally the revenue and profit figures (Table No. 25 shows the revenue and profit per vehicle-mile) indicate a favourable trading year, with the South Island services showing a higher net profit per vehicle-mile than the North Island services. As with the operating-cost figures, there is a considerable variance with the revenue and profit figures from district to district, as is indicated by the following table :—

District.					Average Mileage per Vehicle.	Revenue per Vehicle-mile.	Profit per Vehicle-mile.
					Miles.	d.	d.
No. 1	..	..	..	..	15,885	11·73	1·25
No. 2	..	..	..	..	13,431	13·26	1·51
No. 3	..	..	..	..	12,016	11·57	2·11
No. 4	..	..	..	..	14,310	13·62	2·17
Dominion	..	..	..	..	14,209	12·80	1·60

To give a comparison of revenue with expenditure on a ton-capacity-per-mile basis the revenue from general cartage, excluding mail, passenger and other revenue, is set out hereunder on the same ton-capacity-per-mile basis as used with operating-costs :—

District.					Average Mileage per Vehicle.	General Goods Revenue per Vehicle-mile.	Average Maxi- mum Pay-load Capacity of Vehicles.	Average Revenue per Ton Capacity per Mile.
					Miles.	d.	Tons.	d.
No. 1	..	..	..	..	15,885	10·57	3·03	3·49
No. 2	..	..	..	..	13,431	12·75	3·36	3·79
No. 3	..	..	..	..	12,016	14·30	3·52	4·06
No. 4	..	..	..	..	14,310	12·75	3·29	3·87
Dominion	..	..	..	..	14,209	12·10	3·25	3·72

These figures give an indication not so much of the general level of rates in each district, as they do not take into account the average loads available or the proportion of empty running, but of the relation between average cartage rates and average costs in each Licensing District.

(d) *General Goods Statistics, 1937-38, arranged according to whether the Owner operates One, Two, Three, or Four or more Vehicles.*

This data is set out in Tables Nos. 26 and 27.

The average mileage per vehicle rises from 13,718 miles for owners of one vehicle to 14,783 miles for owners of four or more vehicles. Operating-costs per vehicle-mile also increase as the number of vehicles owned increases. For owners of one vehicle the operating-costs per mile are 10·33d., for owners of two vehicles 10·76d., three vehicles 11·17d., and for four or more vehicles 12d.

The rise in operating-costs per vehicle-mile is probably due to the fact that in the larger fleets it is possible to operate heavier vehicles on the higher-classified roads and at the same time have one or two lighter vehicles for use on the lower-classified roads.

Single-vehicle operators, on the other hand, have to limit the size of their vehicles to the lowest-road classification in the areas they are serving or else lose a certain amount of business.

The revenue figures show a similar trend to the cost figures, rising as follows :

Owners of one vehicle	..	..	..	..	11·52d. per vehicle-mile.
Owners of two vehicles	..	..	..	..	12·40d. per vehicle-mile.
Owners of three vehicles	..	..	..	..	13·06d. per vehicle-mile.
Owners of four or more vehicles	..	..	..	..	13·71d. per vehicle-mile.

The figures for net profit per vehicle-mile indicate that the owners of three vehicles obtain the best net return per mile, 1·89d. ; the figures for the other groups being :—

Owners of one vehicle	..	..	..	..	1·19d. per mile.
Owners of two vehicles	..	..	..	..	1·64d. per mile.
Owners of four or more vehicles	..	..	..	..	1·71d. per mile.

*(c) Public works and Local-body Contractors.*

Details of the finances and statistics for public-works and local-body contractors are set out in Tables Nos. 28 and 29.

The average operating-costs for public-works and local-body contractors total 11·77d. per vehicle-mile, while revenue averages 13·26d. per vehicle-mile, giving a profit of 1·49d.

A study of the detailed figures shows that the main variation between the operating-costs for general cartage and public-works cartage comes in the items "Wages and depreciation." With the general operators wages per vehicle-mile average 4·11d., against 4·76d. for the contractors, while depreciation for the former averages 1·17d., against 1·33d. for the latter.

This is to be expected partly because the average mileage on the contract work is lower, 12,365 miles against 14,209 miles, and partly because of the larger proportion of standing-time to running-time than is usual amongst general-goods operators.

*(f) Mail Contractors.*

Tables Nos. 30 and 31 set out the relative data for this group.

The large majority of vehicles in this group are small cars, and this is reflected in the average operating-costs per vehicle-mile of 5·14d. The average mileage per vehicle is higher than for any of the other groups, being 18,738 miles, against 14,209 miles for the general operators and 12,365 miles for the contractors.

As with the passenger services largely engaged on mail cartage, this group shows a loss on the year's operations.

It is interesting to compare the figures for the passenger and goods contractors, and the comparative figures are set out hereunder:—

				Goods-mail Services.	Passenger-mail Services.
				d. d.	d. d.
Running-costs	..	..	..	1·96	2·53
Standing charges	..	..	..	..	..
Wages	..	..	..	2·24	2·16
Depreciation	..	..	..	0·54	0·60
Other charges	..	..	..	0·21	0·59
				— 2·99	— 3·35
Overhead charges	..	..	..	0·19	0·28
Costs per vehicle-mile	..	..	..	5·14	6·16
Revenue per vehicle-mile	..	..	..	4·87	6·09
Loss per vehicle-mile	..	..	..	0·27	0·07

Generally for the carriage of passengers somewhat larger vehicles are used on the passenger-mail runs.

**C. TAXI-CAB OPERATIONS.**

Following on representations received from interested parties, the taxi services in Hamilton and Thames were brought under the provisions of the Transport Act on the 9th December, 1938.

Twenty-three applications were received for taxi licenses, of which 21 were granted and 2 refused. Similar conditions to those placed on the Christchurch taxis, as mentioned in last year's report, were included in the licenses granted.

So far as the taxis in the Christchurch Metropolitan Area are concerned, 77 of the services came up for renewal during the year. The only change made was the reduction of the number of cabs licensed, from 138 to 131. Four applications for new licenses were received, 2 being granted and 2 refused, while 14 applications for transfer were considered, 11 being granted and 3 refused.

At the close of the year there were 78 licenses in force, authorizing the use of 132 cabs.

No financial figures for 1938-39 are available owing to this report being required much earlier than usual.

**D. CO-ORDINATION OF LONG-DISTANCE FREIGHT SERVICES.**

Further steps were taken during the year in connection with the purchase by the State of some 51 long-distance motor-freight services competing with the railways. The Tribunal set up for the purpose of making recommendations to the Government regarding the purchase-price and other cognate matters had by 31st March, 1939, made recommendations in all but two of the services concerned, and by the same date the Railways Department had actually taken over some 47 of the services.

It is anticipated that in due course the utmost co-ordination possible between rail and road services over the routes affected will be brought about with beneficial results on the Dominion's burden of national transport costs.

## E. APPEALS.

Appeals lodged during the year totalled 54, of which 42 were goods-service appeals and 12 were passenger-service appeals. Of the latter, 1 was in respect of a taxi service.

The following details are given regarding the above appeals, together with 27 goods-service and 3 passenger-service appeals brought forward from the previous year.

District.	Carried Forward from Previous Report.	Lodged during Current Year.	Appeals Withdrawn.	Authority's Decision upheld.	Decision modified.	Decision reversed.	Under Action.
GOODS-SERVICES.							
No. 1 .. .. .	14	13	6	4	3	2	12
No. 2 .. .. .	2	10	4	5	..	1	2
No. 3 .. .. .	2	5	2	1	..	1	3
No. 4 .. .. .	9	14	4	5	5	..	9
Totals .. .. .	27	42	16	15	8	4	26
PASSENGER-SERVICES.							
No. 1 .. .. .	..	3	..	..	..	..	3
No. 2 .. .. .	1	2	..	1	1	..	1
No. 3 .. .. .	..	2	1	..	..	..	1
No. 4 .. .. .	2	4	..	..	..	..	6
Auckland Metropolitan ..	..	1	..	..	..	..	1
Totals .. .. .	3	12	1	1	1	..	12

## 7. CHANGES IN TRANSPORT LAW IN NEW ZEALAND.

The following amendments have been effected, during the year covered, to the statutes and regulations administered by this Department. Some of the alterations are dealt with in more detail in other parts of the Report.

## A. STATUTES.

The only change in statute laws was effected by section 13 of the Finance Act, 1938, which is of a validating nature relative to fees for Warrants of Fitness of motor-vehicles.

## B. REGULATIONS.

The following regulations were issued :

*Motor-vehicle (Registration-plate) Regulations 1934, Amendment No. 5* (1938/58) and the *Motor-vehicle (Registration-plate) Regulations 1934, Amendment No. 6* (1939/27).—These amendments relate principally to the allotted registration-plates for rental cars and private-hire cars, and provide also a special plate for the High Commissioner in New Zealand for the United Kingdom.

*Motor-vehicles Insurance (Third-party Risks) Regulations 1939* (1939/34).—These regulations form a consolidation of the pre-existing regulations with amendments relating chiefly to a revised scale of premiums as referred to in the relative section of this report.

*Transport Licensing (Goods-service) Regulations 1936, Amendment No. 1* (1938/101).—This effects a small extension to the scope of the exemption of certain live-stock from the thirty-mile-rail-protection clause of the main regulations (Regulation 4 (a)).

*Motor-cab (Hamilton and Thames) Regulations 1938* (Gaz. 9/12/38).—This relates to control under the Transport Licensing Act, 1931, of taxi-cabs in Hamilton Borough and Thames Borough.

*Warrant re Rental Vehicles* (1939/24) and the *Rental Vehicle Regulations 1939* (1939/25).—These bring under the provisions of the Transport Licensing Act, 1931, the type of vehicles hired out under the "drive-yourself" system.

*Fitness Certificate (School Motor-car) Exemption Order 1938* (1938/95).—This relates to the exemption from Certificates of Fitness under the Transport Licensing Act, 1931 (but not from Warrants of Fitness), of certain cars, generally of a private nature, used only for carrying school-children to and from school.

## C. WARRANTS AND EXEMPTIONS BY MINISTER.

Warrants have been issued (as included above) for the purpose of bringing taxi-cabs in Hamilton and in Thames and also all rental (drive-yourself) vehicles under the provisions of the Transport Licensing Act, 1931. Also numerous warrants have been issued fixing road classifications and areas of speed-limit restrictions or de-restrictions.

During the year the Minister has approved of exemptions being granted for the following number of motor-vehicles :—

Number of Vehicles affected.	Nature of Exemption.	Authority for Exemption.
45	Exemption from license fees of vehicles designed for road-construction or road-maintenance purposes	Para. (3) of the Second Schedule to the Motor-vehicles (Special Types) Regulations (No. 2) 1937 (270/1937).
7	Exemption from fitting of mileage-recorder to vehicles subject to mileage-tax	Regulation 3 of Motor-vehicle Special Taxation Regulations 1933.
63	Exemption from passenger-service license of vehicles carrying workmen to and from a public work	Section 14 of Transport Licensing Amendment Act, 1936.

### 8. COMMERCIAL AIR SERVICES.

The commercial air services have continued to extend their sphere of operation, and there are now nine services in operation against the seven operating in the previous year.

Cook Strait Airways, Ltd., have extended their Wellington-Blenheim-Nelson service to the West Coast to link up with the services run by Air Travel (N.Z.), Ltd., while Union Airways have taken over the East Coast Airways' Palmerston North-Napier-Gisborne service and commenced a new service between Gisborne and Auckland. Another service operated by this firm, between Palmerston North and Dunedin, has been replaced by two services, the first operating between Palmerston North and Christchurch, and the second between Wellington and Dunedin.

While Table No. 33 sets out a comparison of the main statistics for the air-services over the past five years, Table No. 32 shows the detailed records for the year under review compared in total with similar figures for the previous year.

From the latter table it will be seen that the annual mileage flown has advanced from 1,364,351 miles in 1937-38 by 27.3 per cent. to 1,737,282 miles, the number of passengers carried has increased by 13,900, or 27.6 per cent., from 47,400 to 60,459, while the number of trips flown has risen by 48.4 per cent., from 9,818 to 14,572.

The quantity of mail and freight carried shows a big advance on the previous year, the weight of mail carried, 316,229 lb., being 47.5 per cent. more than for 1937-38, while the weight of freight carried, 172,134 lb., was more than double the quantity carried in the previous year.

It is also interesting to note that the percentage of trips flown to trips scheduled has been maintained at the high rate of nearly 98 per cent.

Comparative figures for passenger-miles, freight ton-miles, and mail ton-miles are not available for 1937-38.

9. APPENDICES.

APPENDIX A.—STATISTICAL RETURNS.

TABLE No. 1.—MOTOR-VEHICLE REGISTRATIONS, BY HIGHWAY DISTRICTS.

TABLE SHOWING THE NUMBER OF EACH TYPE OF MOTOR-VEHICLE LICENSED IN EACH HIGHWAY DISTRICT, AT 31ST DECEMBER, 1938.

Highway District.	District No.	Motor-cars.	Dealers' Cars.	Rental and Private-hire Cars.	Taxis.	Service Cars.	Omnibuses.	Passenger-trucks.	Light Trucks.	Heavy Trucks.	Trailers.	Local-body Vehicles.	Government Vehicles.	Motor-cycles.	Dealers' Motor-cycles.	Total.
North Island.																
Auckland North .. ..	1	6,749	43	..	75	34	15	174	983	782	206	83	127	563	2	9,836
Auckland South .. ..	2	51,491	488	235	495	113	235	220	6,170	5,393	1,930	661	653	5,423	35	73,543
Tauranga .. ..	3	5,951	71	37	68	51	20	102	1,045	701	269	100	186	538	4	9,142
Gisborne .. ..	4	4,068	36	5	44	25	23	39	503	445	185	87	101	482	2	6,045
Hawke's Bay .. ..	5	11,664	119	16	80	36	45	162	1,967	1,290	439	251	125	806	9	17,009
King-country .. ..	6	2,709	15	4	26	8	5	34	417	355	79	29	79	246	1	4,007
Taranaki .. ..	7	10,504	117	49	47	28	12	60	1,490	1,348	182	137	90	1,003	11	15,978
Wanganui .. ..	8	7,999	66	19	48	30	4	65	1,144	844	251	135	110	685	6	11,406
Wellington West .. ..	9	28,060	318	90	273	20	126	91	2,829	2,441	870	363	811	2,397	18	38,707
Wellington East .. ..	10	6,283	57	2	28	33	7	45	1,060	652	257	160	9	432	4	9,029
Totals, North Island .. ..	..	135,478	1,330	457	1,184	378	492	992	17,608	14,251	4,668	2,006	2,291	12,575	93	193,803
South Island.																
Nelson .. ..	11	6,409	51	21	43	74	14	54	1,117	667	266	142	141	637	5	9,644
West Coast .. ..	12	3,376	19	12	36	28	18	72	479	489	95	60	135	449	1	5,229
Canterbury North .. ..	13	1,388	3	9	4	1	..	28	238	184	81	79	..	145	8	2,174
Canterbury Central .. ..	14	22,331	220	109	112	49	58	101	2,266	1,857	1,430	440	339	2,772	17	31,801
Canterbury South .. ..	15	9,514	71	57	38	17	18	53	1,480	711	807	378	66	737	6	13,953
Otago Central .. ..	16	1,342	32	16	33	23	7	42	724	396	227	126	33	352	1	6,354
Otago South .. ..	17	11,101	93	46	162	42	51	120	1,261	1,129	504	158	121	1,404	8	16,200
Southland .. ..	18	9,559	89	42	66	23	32	64	1,393	1,046	484	335	175	692	6	14,006
Totals, South Island .. ..	..	68,020	578	315	494	257	198	534	8,958	6,479	3,597	1,718	1,010	7,158	52	99,368
Grand totals .. ..	..	203,498	1,908	772	1,678	635	690	1,526	26,566	20,730	8,265	3,724	3,301	19,733	145	293,171

TABLE No. 2.—MOTOR-VEHICLES LICENSED AS AT 31st MARCH, 1939.

TABLE SHOWING BY POSTAL DISTRICTS THE NUMBER OF MOTOR-VEHICLES LICENSED UNDER THE MOTOR-VEHICLES ACT, 1924, AS AT THE 31st MARCH, 1939.

Postal District.	Cars.	Rental and Private-hire Cars.	Light Trucks (i.e., 2 tons and under laden).	Heavy Trucks (i.e., over 2 tons laden).	Passenger-trucks.	Omnibuses.	Taxis.	Service Cars.	Trailers.	Dealers' Cars.	Local-body Road Vehicles.	Government Vehicles.	Dealers' Motor-cycles.	Motor-cycles.	Total.
North Island.															
Auckland .. ..	42,501	228	4,872	4,259	292	204	453	105	1,498	381	511	558	32	4,871	60,765
Thames .. ..	7,787	7	1,327	882	63	19	58	34	343	86	146	105	7	701	11,565
Hamilton .. ..	18,581	64	2,706	2,203	191	52	144	72	973	154	273	442	4	1,528	27,387
Gisborne .. ..	5,035	7	643	541	69	25	57	25	242	46	104	102	2	602	7,500
Napier .. ..	10,145	10	1,719	1,113	155	43	72	39	427	114	256	121	8	721	14,943
New Plymouth .. ..	11,250	45	1,583	1,393	64	11	47	27	210	121	142	92	11	1,074	16,070
Wanganui .. ..	8,034	20	1,138	834	63	4	18	29	263	66	156	109	6	706	11,476
Palmerston North .. ..	12,793	35	1,768	1,117	65	27	61	22	570	94	277	165	8	908	17,910
Wellington .. ..	25,159	70	2,686	2,317	102	107	246	40	793	305	317	737	18	2,224	35,151
Totals, North Island .. ..	141,285	486	18,442	14,659	1,064	492	1,186	393	5,319	1,367	2,212	2,431	96	13,335	202,767
South Island.															
Nelson .. ..	4,493	22	741	495	37	12	26	67	158	34	71	131	6	439	6,732
Blenheim .. ..	2,251	3	439	199	32	2	18	7	155	21	106	13	1	244	3,491
Westport .. ..	930	1	153	142	17	3	6	10	32	6	20	33	..	101	1,454
Greymouth .. ..	2,583	12	346	368	57	15	33	19	77	15	46	103	1	336	4,011
Christchurch .. ..	28,382	111	3,134	2,386	164	61	132	60	1,755	243	1,143	346	27	3,384	41,328
Timaru .. ..	6,542	47	1,025	479	38	14	30	12	469	53	285	88	4	543	9,629
Oamaru .. ..	2,549	3	383	224	13	6	16	2	174	20	89	11	1	189	3,680
Dunedin .. ..	13,268	53	1,656	1,324	154	54	179	51	639	106	248	157	8	1,676	19,573
Invercargill .. ..	10,283	44	1,475	1,117	76	32	69	38	567	88	430	179	6	862	15,266
Totals, South Island .. ..	71,281	296	9,352	6,734	588	199	509	266	4,026	586	2,438	1,061	54	7,774	105,164
Grand totals .. ..	212,566	782	27,794	21,393	1,652	691	1,695	659	9,345	1,953	4,650	3,492	150	21,109	307,931



TABLE No. 3.—MOTOR-VEHICLES ACT, 1924.

COMPARATIVE TABLE SHOWING NUMBER OF MOTOR-VEHICLES LICENSED AS AT 31ST DECEMBER, 1925 TO 1938, INCLUSIVE.

Year.	Cars.	Light Trucks.	Heavy Trucks.	Motor-cycles.	Motor-buses.	Traction-engines and Tractors.	Omnibuses.	Taxis.	Service and Rental Cars.	Dealers' Cars.	Local-body Road Vehicles.	Government Vehicles.	Dealers' Motor-cycles.	Trailers.	Read-rollers.	Fire-engines.	Ambulances.	Rental and Private-life Cars.	Passenger-trucks.	Other Vehicles.	Totals, excluding Trailers.
1925 ..	81,662	9,671	4,002	25,339	1,285	579	..	..	..	..	..	..	..	489	76	102	59	..	..	132	122,907
1926 ..	97,526	12,300	4,862	28,284	1,488	663	..	..	..	..	..	..	..	550	119	115	61	..	..	146	145,568
1927 ..	105,464	14,501	5,693	27,792	1,978	574	..	..	..	..	..	..	..	629	..	..	..	..	..	408	155,410
1928 ..	118,017	15,604	6,398	28,952	1,043	562	..	..	..	..	..	..	..	690	..	..	..	..	..	426	171,002
1929 ..	132,590	16,429	8,466	27,823	1,076	483	..	..	..	..	..	..	..	801	..	..	..	..	..	456	187,323
1930 ..	140,166	16,463	9,786	26,844	1,096	490	..	..	..	..	..	..	..	1,123	..	..	..	..	..	470	195,315
1931 ..	135,909	19,249	9,832	25,774	1,062	724	..	..	..	..	..	..	..	1,576	..	..	..	..	..	417	192,964
1932 ..	123,637	20,217	13,697	23,500	..	..	528	1,568	1,123	1,605	1,134	1,406	137	†	..	..	..	..	..	..	187,952
1933 ..	123,623	21,521	14,245	23,020	..	..	524	1,497	*1,002	850	1,165	1,390	128	†	..	..	..	147	..	..	189,112
1934 ..	131,176	20,804	14,943	22,913	..	..	522	1,573	*716	1,084	1,233	1,485	123	2,911	..	..	..	234	656	..	197,486
1935 ..	143,488	22,681	16,138	22,935	..	..	539	1,672	*692	1,293	1,546	1,595	137	3,509	..	..	..	372	810	..	213,948
1936 ..	161,836	25,058	18,096	22,347	..	..	694	1,661	*673	1,513	1,865	1,931	139	4,580	..	..	..	551	1,028	..	237,335
1937 ..	183,054	25,343	19,587	21,178	..	..	642	1,746	*678	1,756	2,369	2,538	139	6,286	..	..	..	680	1,264	..	260,971
1938 ..	203,498	26,566	20,730	19,733	..	..	639	1,678	*635	1,908	3,724	3,301	145	8,235	..	..	..	772	1,526	..	284,906

\* Service cars only. † Not available.

For further information concerning this table, see page 7 of this report.

TABLE No. 4.—ALLOCATION OF PETROL-TAX.

TABLE SHOWING THE DISTRIBUTION OF 8 PER CENT. OF THE PETROL-TAX TO BOROUGHES WITH A POPULATION OF 6,000 AND OVER IN ACCORDANCE WITH SECTION 9 (1) (b) OF THE MOTOR SPIRITS TAXATION ACT, 1927.

Boroughs.	Year ended 31st March, 1939.										Total since Inception of Petrol-tax up to 31st March, 1939.	
	Amount of Tax, Quarter ended											
	30th June.		30th September.		31st December.		31st March.		Total.			
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
Wellington City ..	7,092	5 8	6,723	16 11	8,703	3 3	8,081	13 5	30,200	19 3	209,497	13 1
Auckland City ..	6,274	3 6	5,948	4 9	7,345	7 7	7,149	8 8	26,717	4 6	193,624	14 2
Christchurch City ..	5,618	9 8	5,326	12 2	6,577	14 10	6,402	5 6	23,925	2 2	168,751	14 10
Dunedin City ..	3,922	2 3	3,718	7 3	4,591	14 10	4,469	5 1	16,701	9 5	124,353	14 3
Wanganui City ..	1,404	12 5	1,331	13 1	1,644	8 8	1,600	11 5	5,981	5 7	44,898	7 11
Palmerston Nth. City ..	1,377	11 0	1,305	19 9	1,612	14 11	1,569	14 6	5,866	0 2	40,011	10 10
Invercargill City ..	1,341	9 2	1,271	15 5	1,570	9 9	1,528	11 11	5,712	6 3	38,927	4 0
Mount Albert ..	1,212	2 6	1,149	3 2	1,419	1 6	1,381	4 5	5,161	11 7	37,646	3 11
Mount Eden ..	1,123	18 6	1,075	0 4	1,327	10 5	1,292	2 2	4,828	11 5	36,401	3 9
Timaru ..	1,031	14 9	1,006	11 8	1,243	0 2	1,209	17 0	4,521	3 7	31,791	1 9
New Plymouth ..	1,031	12 2	978	1 4	1,207	15 11	1,175	11 7	4,393	2 6	30,228	11 0
Hamilton ..	1,049	14 1	995	3 6	1,228	18 6	1,196	2 10	4,469	18 11	29,637	16 11
Lower Hutt ..	1,061	14 11	1,009	8 8	1,246	10 7	1,213	5 7	4,533	19 9	27,458	2 11
Napier ..	944	8 8	895	7 5	1,105	13 7	1,076	3 8	4,021	13 4	29,536	18 4
Gisborne ..	833	2 11	789	17 4	975	7 10	949	7 6	3,547	15 7	25,949	2 5
Hastings ..	800	1 3	758	10 0	926	13 2	911	13 5	3,406	17 10	22,660	11 7
Nelson City ..	685	15 4	650	2 10	802	17 0	781	8 8	2,920	3 16	20,458	15 9
Onehunga ..	679	15 1	644	8 10	795	16 2	774	11 7	2,891	11 8	29,731	4 10
Petone ..	664	14 3	630	3 8	778	4 0	757	8 10	2,830	10 9	20,291	7 7
Devonport ..	590	2 5	559	9 4	690	17 6	672	8 11	2,512	18 2	18,777	15 8
Masterton ..	562	9 0	533	4 7	658	9 7	640	18 3	2,395	1 5	16,438	4 7
One Tree Hill ..	495	12 7	469	18 7	580	6 1	561	16 6	2,110	14 9	13,110	18 11
Greymouth ..	561	13 10	475	12 7	587	7 0	571	13 7	2,136	7 0	12,591	9 6
St. Kilda ..	466	16 1	442	11 1	546	10 6	531	18 6	1,987	15 8	14,923	5 8
Oamaru ..	451	15 5	431	2 11	532	8 4	518	4 3	1,926	10 11	13,988	8 7
Whangarei ..	442	2 10	419	3 5	517	12 7	503	16 5	1,882	15 3	13,791	12 8
Takapuna ..	448	3 1	424	17 6	524	13 5	510	13 6	1,998	7 6	13,206	1 9
Rotorua ..	387	8 0	367	5 6	453	10 10	441	8 10	1,649	13 2	4,517	13 10
Totals ..	42,541	13 4	40,331	13 7	49,804	18 0	48,476	6 6	181,154	11 5	1,273,931	11 0

TABLE No. 5.—LENGTH OF ROADS, STREETS, AND BRIDGES.

TABLE SHOWING THE LENGTHS OF THE VARIOUS CLASSES OF ROADS, STREETS, AND BRIDGES IN THE DOMINION AT 31ST MARCH IN THE YEARS 1922 TO 1938.

Year.	Roads and Streets formed to not less than Dray-width, and paved or surfaced with—				Roads and Streets formed to not less than Dray-width, but not paved or surfaced.	Total Formed Roads.	Bridle- tracks.	Unformed Legal Roads.	Total of all Roads.	
	Bitu- minous or Cement Concrete.	Bitumen or Tar.	Metal or Gravel.	Other and Un- specified Material.						
	Miles.	Miles.	Miles.	Miles.						
1922	..	26,787 <sup>3</sup> / <sub>4</sub> *				17,456 <sup>1</sup> / <sub>4</sub>	44,244	5,095 <sup>1</sup> / <sub>2</sub>	13,631 <sup>1</sup> / <sub>2</sub>	62,971
1923	..	27,815 <sup>1</sup> / <sub>2</sub> *				17,791 <sup>1</sup> / <sub>2</sub>	45,607	5,377 <sup>1</sup> / <sub>2</sub>	13,613	64,597 <sup>1</sup> / <sub>2</sub>
1924	..	28,553 <sup>1</sup> / <sub>4</sub> *				17,222 <sup>3</sup> / <sub>4</sub>	45,776	5,218 <sup>1</sup> / <sub>4</sub>	13,630 <sup>1</sup> / <sub>2</sub>	64,624 <sup>3</sup> / <sub>4</sub>
1925	..	58 <sup>3</sup> / <sub>4</sub>	639	28,213 <sup>3</sup> / <sub>4</sub>	458 <sup>1</sup> / <sub>4</sub>	16,748	46,147 <sup>3</sup> / <sub>4</sub>	5,181 <sup>1</sup> / <sub>2</sub>	15,676 <sup>3</sup> / <sub>4</sub>	67,006
1926	..	97 <sup>3</sup> / <sub>4</sub>	836	28,981 <sup>1</sup> / <sub>2</sub>	340 <sup>1</sup> / <sub>2</sub>	16,521 <sup>3</sup> / <sub>4</sub>	46,777 <sup>1</sup> / <sub>4</sub>	5,009 <sup>3</sup> / <sub>4</sub>	15,792 <sup>1</sup> / <sub>2</sub>	67,579 <sup>1</sup> / <sub>2</sub>
1927	..	133	1,012	29,726 <sup>1</sup> / <sub>2</sub>	373 <sup>1</sup> / <sub>2</sub>	16,107 <sup>1</sup> / <sub>4</sub>	47,352 <sup>1</sup> / <sub>4</sub>	5,093	15,795	68,240 <sup>1</sup> / <sub>4</sub>
1928	..	217	1,262 <sup>1</sup> / <sub>2</sub>	30,669 <sup>3</sup> / <sub>4</sub>	129 <sup>1</sup> / <sub>4</sub>	15,381 <sup>1</sup> / <sub>4</sub>	47,659 <sup>3</sup> / <sub>4</sub>	5,040 <sup>1</sup> / <sub>2</sub>	15,669 <sup>1</sup> / <sub>4</sub>	68,369 <sup>1</sup> / <sub>2</sub>
1929	..	254	1,472	31,334	125 <sup>3</sup> / <sub>4</sub>	15,135 <sup>1</sup> / <sub>4</sub>	48,321	5,399 <sup>3</sup> / <sub>4</sub>	15,197 <sup>1</sup> / <sub>2</sub>	68,918 <sup>1</sup> / <sub>4</sub>
1930	..	306	1,724 <sup>3</sup> / <sub>4</sub>	32,352 <sup>1</sup> / <sub>2</sub>	83	14,600 <sup>1</sup> / <sub>4</sub>	49,066 <sup>1</sup> / <sub>2</sub>	5,375	16,506 <sup>1</sup> / <sub>4</sub>	70,947 <sup>3</sup> / <sub>4</sub>
1931	..	339 <sup>1</sup> / <sub>2</sub>	1,892 <sup>3</sup> / <sub>4</sub>	32,855 <sup>1</sup> / <sub>2</sub>	116	14,374 <sup>1</sup> / <sub>2</sub>	49,578 <sup>1</sup> / <sub>2</sub>	5,642 <sup>1</sup> / <sub>4</sub>	16,923 <sup>1</sup> / <sub>2</sub>	72,144
1932	..	336 <sup>3</sup> / <sub>4</sub>	2,118 <sup>1</sup> / <sub>2</sub>	33,536 <sup>1</sup> / <sub>2</sub>	88 <sup>1</sup> / <sub>2</sub>	14,195 <sup>3</sup> / <sub>4</sub>	50,276	5,808	16,418	72,502
1933	..	344	2,320	34,848	80 <sup>1</sup> / <sub>2</sub>	13,300 <sup>1</sup> / <sub>2</sub>	50,893	5,876 <sup>1</sup> / <sub>4</sub>	17,474	74,243 <sup>1</sup> / <sub>4</sub>
1934	..	368	2,544 <sup>1</sup> / <sub>2</sub>	35,952 <sup>1</sup> / <sub>4</sub>	79 <sup>1</sup> / <sub>2</sub>	12,698 <sup>1</sup> / <sub>2</sub>	51,642 <sup>1</sup> / <sub>2</sub>	5,878 <sup>3</sup> / <sub>4</sub>	17,703 <sup>1</sup> / <sub>4</sub>	75,230 <sup>1</sup> / <sub>4</sub>
1935	..	379 <sup>1</sup> / <sub>4</sub>	2,819	36,721 <sup>1</sup> / <sub>4</sub>	78 <sup>1</sup> / <sub>2</sub>	12,160 <sup>1</sup> / <sub>2</sub>	52,158 <sup>1</sup> / <sub>2</sub>	5,871	16,999	75,028 <sup>1</sup> / <sub>2</sub>
1936	..	395	3,246 <sup>1</sup> / <sub>4</sub>	36,056	75 <sup>1</sup> / <sub>2</sub>	12,285 <sup>3</sup> / <sub>4</sub>	52,058 <sup>1</sup> / <sub>2</sub>	5,812	16,982 <sup>1</sup> / <sub>2</sub>	74,853
1937	..	403 <sup>3</sup> / <sub>4</sub>	3,502 <sup>3</sup> / <sub>4</sub>	37,327 <sup>3</sup> / <sub>4</sub>	78 <sup>1</sup> / <sub>2</sub>	11,015	52,327 <sup>3</sup> / <sub>4</sub>	5,857	17,040 <sup>1</sup> / <sub>2</sub>	75,225 <sup>1</sup> / <sub>4</sub>
1938	..	411 <sup>3</sup> / <sub>4</sub>	3,845	37,708 <sup>1</sup> / <sub>2</sub>	82 <sup>1</sup> / <sub>2</sub>	10,580	52,627 <sup>3</sup> / <sub>4</sub>	5,710 <sup>3</sup> / <sub>4</sub>	17,215 <sup>3</sup> / <sub>4</sub>	75,554 <sup>1</sup> / <sub>4</sub>

\* NOTE.—Figures for earlier years, particularly in regard to unformed legal roads, are not claimed to be entirely accurate.

TABLE No. 6.—LENGTH OF BRIDGES.

TABLE SHOWING THE LENGTHS OF THE VARIOUS CLASSES OF BRIDGES IN NEW ZEALAND AS AT 31ST MARCH, 1923 TO 1938, INCLUSIVE.

Year ended 31st March.		Bridges, 25 ft. and over in Length constructed with—												Total Bridges 25 ft. and over.	
		All Concrete or Stone.		Steel and Concrete.		Steel, Concrete, and Timber.		Steel and Timber.		Australian or other Hardwood.		Native Timbers.			
		No.	Total Length.	No.	Total Length.	No.	Total Length.	No.	Total Length.	No.	Total Length.	No.	Total Length.	No.	Total Length.
			Ft.		Ft.		Ft.		Ft.		Ft.		Ft.		Ft.
1923	..	*	*	*	*	*	*	*	*	*	*	*	*	2,955½	328,766½
1924	..	*	*	*	*	*	*	*	*	*	*	*	*	3,297½	362,034½
1925	..	408	36,810	..	..	205	28,916	..	..	1,466	180,529	2,035	167,557	1,111	413,842
1926	..	431	39,127	..	..	258	34,883	..	..	1,665	197,735	2,029	161,064	1,383	432,829
1927	..	489	42,804	..	..	349	40,185	..	..	1,850	217,600	1,959	148,927	1,617	449,016
1928	..	545	47,833	..	..	282	37,623	..	..	2,013	240,208	1,994	153,078	1,834	467,742
1929	..	608	52,761	..	..	321	38,679	..	..	2,137	242,474	2,181	165,525	1,999	499,139
1930	..	671	57,739	..	..	270	37,777	..	..	2,285	245,867	2,164	168,120	2,390	509,503
1931	..	751	66,292	..	..	295	38,995	..	..	2,396	253,057	2,164	161,940	2,581	523,281
1932	..	552	43,878	330	41,272	186	20,952	182	17,433	2,277	240,622	2,277	163,453	5,804	527,610
1933	..	574	46,774	356	39,237	209	25,726	300	27,417	2,233	230,380	2,316	164,969	5,988	534,532
1934	..	590	48,957	380	39,662	235	29,387	354	30,834	2,191	227,035	2,365	167,129	6,115	543,001
1935	..	623	52,146	429	42,865	269	31,861	499	40,776	1,932	210,176	2,475	172,583	6,227	530,610
1936	..	669	57,862	456	46,132	303	34,593	457	40,628	2,077	215,742	2,381	167,404	6,343	562,371
1937	..	699	60,375	461	49,339	321	34,981	553	47,328	2,063	213,599	2,434	169,092	6,521	574,714
1938	..	746	65,462	499	50,690	330	36,911	616	49,360	2,089	216,279	2,399	163,749	6,679	582,451

\* Detailed figures not available. † 30 ft. and over in length

TABLE No. 7.—TAXATION OF MOTOR-VEHICLES, 1926-1939.

TABLE SHOWING THE ANNUAL YIELD FOR THE YEARS ENDED 31ST MARCH, 1926 TO 1939, IN RESPECT OF (a) CUSTOMS DUTIES ON MOTOR-VEHICLES AND PARTS; (b) TIRE-TAX; (c) MOTOR-SPIRITS TAX; (d) FEES, ETC., UNDER THE MOTOR-VEHICLES ACT, 1924; (e) HEAVY-TRAFFIC FEES; (f) DRIVERS' LICENSES; AND (g) MILEAGE TAX.

Year ended 31st March,	Customs Duties in respect of Motor-vehicles and Parts.*	Tire-tax.	Motor- spirits Tax. Net Balance.	Fees, &c., under Motor- vehicles Act, 1924.	Heavy- traffic Fees.	Drivers' Licenses.	Mileage- tax.	Total.
	£	£	£	£	£	£	£	£
1926 ..	996,311	240,042	..	86,681†	114,009	33,162	..	1,470,205
1927 ..	1,064,752	199,875	..	395,797	220,616	50,650	..	1,931,690
1928 ..	845,836	238,171	146,460	345,510	157,651	52,495	..	1,780,123
1929 ..	1,034,835	207,547	810,386	244,598	190,789	36,830	..	2,524,985
1930 ..	1,415,012	173,122	983,882	391,368	183,486	56,578	..	3,203,448
1931 ..	807,642	150,424	1,363,204	393,798	194,557	59,462	..	2,969,087
1932 ..	253,759	103,873	1,659,918	370,126	179,105	58,860	..	2,625,681
1933 ..	131,659	73,653	1,865,762	352,561	178,183	57,132	..	2,661,950
1934 ..	120,790	67,779	2,351,558	346,249	171,503	60,358	1,597	3,119,834
1935 ..	531,051	100,593	2,593,214	391,661	204,767	61,385	1,629	3,884,300
1936 ..	721,877	102,309	2,896,202	431,896	232,094	66,260	1,813	4,452,451
1937 ..	985,292	154,894	3,370,048	493,626	266,558	75,843	4,159	5,350,420
1938 ..	951,570	176,527	3,808,479	563,038	305,679	83,597	10,592	5,899,482
1939 ..	924,266	167,916	4,132,360	612,395	322,000‡	91,000‡	13,461	6,263,398
Totals for 13 years to 31st March, 1939	10,787,662	2,156,725	25,981,503	5,419,304	2,920,997	843,612	33,251	48,143,054

\* Calendar year ending on 31st December previous. Includes primage and surtax on vehicles and parts, also tire-tax on tires attached to vehicles or parts. † Alteration in licensing period. ‡ Estimated.

TABLE No. 8.—TAXATION OF MOTOR-VEHICLES, 1937-39.

TABLE SHOWING DETAILS REGARDING THE COLLECTION AND DISTRIBUTION OF TAXATION IN RESPECT OF MOTOR-VEHICLES DURING THE YEAR ENDED 31ST MARCH, 1939.

	Gross Total.	Refunds.	Collection Expenses.	Net Total.	Distribution.			
					Consolidated Fund.	Main High- ways Account.	Boroughs of 6,000 Population and over.	Local Bodies.
	£	£	£	£	£	£	£	£
Customs duties on vehicles and parts ..	924,266	..	..	924,266	924,266	..	..	..
Tire-tax and surtax .. ..	169,334	84	1,334	167,916	18,900	149,016	..	..
Motor-spirits tax .. ..	4,358,498	201,451	24,687	4,132,360	1,867,928	2,083,278	181,154	..
Fees and fines under Motor-vehicles Act	613,204	809	..	612,395	..	612,395	..	..
Heavy traffic fees .. ..	322,000*	..	..	322,000	..	..	..	322,000
Drivers' license fees .. ..	91,000*	..	..	91,000	..	..	..	91,000
Mileage-tax .. ..	13,460	..	..	13,460	5,336	7,474	650	..
Totals—1938-39 .. ..	6,491,762	202,344	26,021	6,263,397	2,816,430	2,852,163	181,804	413,000
Totals—1937-38 .. ..	6,109,770	189,470	24,818	5,895,482	2,696,633	2,646,213	167,360	389,276

\* Estimated.

TABLE No. 9. -CONVICTIONS FOR TRAFFIC OFFENCES, 1929-1938.

TABLE SHOWING A CLASSIFICATION OF THE CONVICTIONS FOR TRAFFIC OFFENCES RECORDED DURING THE CALENDAR YEARS, 1929-1938.

Class of Offence.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
Failing to stop motor-vehicle after accident involving bodily injury	..	..	..	..	..	..	..	..	..	15
Negligent driving causing death ..	8	9	4	8	7	6	8	15	*	20
Negligent driving causing bodily injury ..	2	2	1	..	1	7	1	4	4	8
Unlawfully converting vehicle to own use	268	395	333	391	344	259	333	470	490	372
Drunk in charge of motor-car ..	419	455	350	399	287	253	327	477	573	685
Drunk in charge of other vehicle ..	60	31	23	98	15	12	8	15	15	16
Excessive speed in motor-vehicle ..	1,609	2,126	2,983	2,652	1,428	1,269	1,350	1,697	1,587	2,855
Negligent or dangerous driving of motor-vehicle	3,291	3,923	3,109	2,693	2,314	2,429	2,806	3,533	3,744	4,523
Riding bicycle on footpath ..	777	532	493	354	362	436	381	402	437	262
Negligent or dangerous driving of other vehicles	61	95	40	58	33	62	84	20	160	164
Breaches of regulations for lighting of vehicles	4,164	3,965	2,537	3,493	3,661	3,234	3,440	3,335	2,571	2,301
Offences relating to registration &c. of motor-vehicles	3,232	3,678	4,181	3,524	4,337	4,460	4,240	4,317	4,295	4,317
Breaches of parking regulations ..	1,734	1,836	1,049	949	694	1,326	1,495	1,334	2,161	3,547
Other traffic offences ..	1,147	1,135	918	854	661	729	836	1,193	1,777	5,237
Totals ..	16,770	18,156	15,140	14,613	14,144	14,443	15,309	16,812	17,814	24,322
Motor-vehicles registered at 31st December	187,000	195,000	193,000	188,000	189,000	197,000	214,000	237,000	261,000	293,000
Motor-vehicle petrol-consumption (million gallons)	57	63	55	50	51	56	63	72	82	89
Convictions per thousand motor-vehicles	90	93	78	73	73	73	72	71	68	83
Convictions per million gallons of petrol consumed	294	288	275	292	277	258	243	233	217	273

\* Not available.

TABLE No. 10. —PROSECUTIONS BY TRAFFIC INSPECTORS OF TRANSPORT DEPARTMENT.

TABLE SHOWING FOR THE YEAR ENDED 31ST MARCH, 1939, A CLASSIFICATION ACCORDING TO THE NATURE OF THE OFFENCE OF PROSECUTIONS TAKEN BY TRAFFIC INSPECTORS OF THE TRANSPORT DEPARTMENT.

Offence.	Prosecutions.	Convictions.	Case dismissed.	Information withdrawn.	Amount of Fines.
<i>Motor-vehicles Act and Regulations.</i>					
	Number.	Number.	Number.	Number.	£ s. d.
1. Dangerous driving .. .. .	362	346	12	4	879 14 0
2. Dangerous speed .. .. .	99	95	3	1	290 0 0
3. Exceeding 30 miles per hour in restricted area	1,049	1,038	4	7	1,832 1 0
4. Intoxicated in charge .. .. .	130	126	3	1	1,648 0 0
5. Overtaking on bend or hill-crest .. .. .	87	82	4	1	128 5 0
6. Failing to keep to left .. .. .	162	151	6	5	222 15 0
7. Failing to yield right-of-way at intersection	33	31	2	..	45 10 0
8. Defective brakes .. .. .	125	121	3	1	205 10 0
9. Defective lights .. .. .	165	165	..	..	146 12 0
10. No Warrant of Fitness .. .. .	1,700	1,663	5	32	1,043 0 6
11. Drivers' license offences .. .. .	573	554	4	15	370 18 6
12. Unlicensed or unregistered motor-vehicles ..	240	228	5	7	215 10 0
13. Cycling offences .. .. .	450	436	12	2	213 16 0
14. Negligent driving .. .. .	42	38	2	2	89 0 0
15. Careless or inconsiderate driving .. .. .	81	75	3	3	103 0 0
16. Loading offences .. .. .	70	69	1	..	73 10 0
17. Parking offences .. .. .	50	50	..	..	24 0 0
18. Miscellaneous .. .. .	196	182	9	5	191 5 0
Totals .. .. .	5,614	5,450	78	86	7,722 7 0
<i>Motor-vehicles Insurance Act.</i>					
1. Third-party-insurance offences .. .. .	8	7	1	..	10 10 0
<i>Transport Licensing Act and Regulations.</i>					
1. Unlicensed goods-service .. .. .	83	68	6	9	153 15 0
2. Unlicensed passenger-service .. .. .	18	11	6	1	30 10 0
3. Breach of goods-service license .. .. .	69	62	4	3	133 17 0
4. Breach of passenger-service license .. .. .	2	1	..	1	2 0 0
5. Driving-hours breaches .. .. .	54	46	4	4	54 10 0
6. Overloading goods-service vehicle .. .. .	6	6	..	..	14 10 0
7. Overloading passenger-service vehicle .. .. .	4	4	..	..	6 0 0
8. Failing to carry Certificate of Fitness or Inspection Certificate	101	93	..	8	92 15 0
9. Failing to carry vehicle authority or temporary license	114	92	2	20	71 10 0
10. Miscellaneous .. .. .	1	1	..	..	1 0 0
Totals .. .. .	452	384	22	46	560 7 0
<i>Heavy Motor-vehicles Regulations.</i>					
1. Exceeding licensed load .. .. .	335	330	1	4	643 13 9
2. Exceeding road classification .. .. .	104	98	..	6	181 10 0
3. Exceeding axle-load .. .. .	39	37	2	..	54 10 0
4. Wrong distribution of load .. .. .	12	11	..	1	11 10 0
5. No heavy-traffic license .. .. .	230	203	3	24	359 8 0
6. Speeding .. .. .	525	521	2	2	970 3 0
7. Miscellaneous (heavy motor-vehicles) .. .. .	44	43	..	1	39 5 0
Totals .. .. .	1,289	1,243	8	38	2,259 19 9
Others .. .. .	219	214	3	2	195 14 0
Totals for Dominion .. .. .	7,582	7,298	112	172	10,748 17 9

TABLE No. 11. TRAFFIC OFFENCES BUREAU.

TABLE SHOWING FOR THE YEAR ENDED 31ST MARCH, 1939, A CLASSIFICATION OF THE OFFENCES REPORTED BY TRAFFIC INSPECTORS ON THE STAFF OF THE TRANSPORT DEPARTMENT, TOGETHER WITH A TABULATION OF THE ACTION TAKEN IN CONNECTION WITH THESE REPORTS.

Nature of Offence.					Reported.	Prosecuted.	Warned.	No Action.
<i>Motor-vehicles Act.</i>								
1. Drunk in charge .. .. .	..	..	..	..	142	137	2	3
2. Negligent driving .. .. .	..	..	..	..	46	41	3	2
3. Driving in dangerous manner .. .. .	..	..	..	..	374	345	27	2
4. Speed dangerous .. .. .	..	..	..	..	124	117	6	1
5. Careless or inconsiderate driving .. .. .	..	..	..	..	115	90	20	5
6. Exceeding 30 miles per hour in restricted area .. .. .	..	..	..	..	1,401	1,151	238	12
7. Overtaking at bend or hill-crest .. .. .	..	..	..	..	143	96	42	5
8. Failing to keep to left .. .. .	..	..	..	..	216	167	47	2
9. Failing to yield way at intersection .. .. .	..	..	..	..	36	28	6	2
10. Drivers' license offences .. .. .	..	..	..	..	795	645	123	27
11. Unlicensed or unregistered vehicles .. .. .	..	..	..	..	329	237	73	19
12. Defective lights .. .. .	..	..	..	..	227	167	39	21
13. Defective brakes .. .. .	..	..	..	..	168	139	17	12
14. No Warrant of Fitness .. .. .	..	..	..	..	2,503	1,906	512	85
15. Loading offences .. .. .	..	..	..	..	97	68	26	3
16. Parking offences .. .. .	..	..	..	..	63	53	8	2
17. Third-party-insurance offences .. .. .	..	..	..	..	18	13	3	2
18. Miscellaneous .. .. .	..	..	..	..	461	293	104	64
Total, Motor-vehicles Act .. .. .					7,258	5,693	1,296	269
<i>Heavy Traffic.</i>								
1. Exceeding licensed load .. .. .	..	..	..	..	456	374	68	14
2. No heavy-traffic license .. .. .	..	..	..	..	341	240	67	34
3. Speeding .. .. .	..	..	..	..	640	600	36	4
4. Exceeding road-classification .. .. .	..	..	..	..	147	110	20	17
5. Exceeding axle-load .. .. .	..	..	..	..	85	55	15	15
6. Wrong distribution of load .. .. .	..	..	..	..	29	17	5	7
7. Miscellaneous .. .. .	..	..	..	..	108	50	39	19
Total, heavy traffic .. .. .					1,806	1,446	250	110
<i>Transport Licensing Act.</i>								
1. Unlicensed goods-services .. .. .	..	..	..	..	146	75	44	27
2. Breach of goods-service license .. .. .	..	..	..	..	145	105	24	16
3. Failing to carry Certificate of Fitness or Inspection Certificate .. .. .	..	..	..	..	179	96	42	41
4. Failing to carry vehicle authority or temporary license .. .. .	..	..	..	..	254	128	89	37
5. Unlicensed passenger-service .. .. .	..	..	..	..	74	52	17	5
6. Driving-hours breaches .. .. .	..	..	..	..	479	66	411	2
7. Overloading passenger-service or goods-service vehicle .. .. .	..	..	..	..	20	8	7	5
8. Breaches of passenger-service license .. .. .	..	..	..	..	9	3	3	3
9. Miscellaneous .. .. .	..	..	..	..	41	12	21	8
Total, Transport Licensing Act .. .. .					1,347	545	658	144
Miscellaneous Acts and Regulations .. .. .					24	16	6	2
SUMMARY.								
Motor-vehicles Act .. .. .	..	..	..	..	7,258	5,693	1,296	269
Heavy traffic .. .. .	..	..	..	..	1,806	1,446	250	110
Transport Licensing Act .. .. .	..	..	..	..	1,347	545	658	144
Miscellaneous Acts and Regulations .. .. .	..	..	..	..	24	16	6	2
Total, all offences .. .. .					10,435	7,700	2,210	525
Total, all offences, six months ended 31st March, 1938 .. .. .					3,234	2,629	483	122

TABLE No. 12.—TRANSPORT LICENSING ACT, 1951.  
TABLE SHOWING THE POSITION WITH RESPECT TO APPLICATIONS FOR CONTINUOUS OR SEASONAL PASSENGER-SERVICE LICENSES HANDLED BY THE  
LICENSING AUTHORITIES FOR YEAR ENDED 31st MARCH, 1959.

	Transport Licensing Authority for								Dominion Total.
	No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	Auckland Transport Board District.	Wellington Metropolitan District.	Christchurch Metropolitan District.	Dunedin Metropolitan District.	
New applications—									
Received ..	61	37	15	62	7	..	..	..	182
Granted ..	48	30	13	28	5	..	..	..	124
Refused ..	10	5	..	7	1	..	..	..	23
Adjudged ..	3	2	2	27	1	..	..	..	35
Renewal applications—									
Received ..	44	26	68	111	25	12	8	..	294
Granted ..	44	25	66	109	24	12	8	..	288
Refused ..	..	..	..	..	..	..	..	..	..
Adjudged ..	..	1	2	2	1	..	..	..	6
Amendment applications—									
Received ..	89	49	17	49	38	8	..	1	251
Granted ..	85	47	16	26	37	6	..	1	218
Refused ..	1	..	..	..	1	..	..	..	2
Adjudged ..	3	2	1	23	..	2	..	..	31
Transfer applications									
Received ..	14	11	19	10	..	..	..	..	54
Granted ..	13	11	19	10	..	..	..	..	53
Refused ..	..	..	..	..	..	..	..	..	..
Adjudged ..	1	..	..	..	..	..	..	..	1
Total applications—									
Received ..	208	123	119	232	70	20	8	1	751
Granted ..	190	113	114	173	66	18	8	1	683
Refused ..	11	5	..	7	2	..	..	..	25
Adjudged ..	7	5	5	52	2	2	..	..	73
Number of licenses reviewed ..									
Number of licenses revoked or abandoned									
..	..	5	..	1	..	..	..	..	6
..	8	9	7	3	1	1	..	1	30

TABLE No. 13.—TRANSPORT LICENSING ACT, 1931.

TRAFFIC DATA, OPERATING-EXPENSES, REVENUE, AND PROFIT OF LICENSED PASSENGER-SERVICES (EXCLUDING SERVICES LICENSED BY THE FOUR METROPOLITAN AUTHORITIES) FOR THE YEARS ENDED 31ST MARCH, 1932 TO 1938, INCLUSIVE.

Item.	North Island Totals for Year ended 31st March.				South Island Totals for Year ended 31st March.				New Zealand Totals for Year ended 31st March.						
	1936.	1937.	1938.	1936.	1937.	1938.	1932 (estimated).	1933.	1934.	1935.	1936.	1937.	1938.		
Traffic statistics—															
Vehicle journeys ..	1,354,625	1,341,966	1,745,765	349,567	327,748	417,870	2,560,000	1,862,878	1,878,746	1,736,521	1,704,192	1,669,714	2,163,575		
Vehicle-miles ..	15,221,391	16,319,359	16,847,320	3,807,948	6,462,462	6,662,041	32,000,000	22,756,312	21,920,557	21,541,921	22,029,339	22,782,021	23,599,361		
Empty trips ..	41,123	41,211	38,899	7,603	7,140	6,617	..	51,434	57,382	48,818	48,726	48,351	45,516		
Passengers ..	14,826,996	18,160,297	19,290,858	3,122,355	3,346,279	3,985,963	17,000,000	16,065,672	16,548,717	15,975,336	17,949,351	21,506,576	23,276,761		
Operating-expenses—															
Vehicle-running costs (petrol, oil, tires, repairs, maintenance, and depreciation)*	308,266	332,622	292,242	138,822	129,241	123,734	682,000	480,727	439,105	434,613	447,118	461,863	415,976		
Vehicle-standing charges (license fees, wages, drawings in lieu of wages, insurance, garage rent)*	201,883	253,207	355,231	86,298	101,715	144,789	409,000	285,149	280,832	277,953	288,181	354,922	500,020		
General overhead charges (management and office expenses, interest, advertising, &c.)†	63,634	90,221	77,280	33,059	41,772	36,590	149,000	108,239	90,358	94,173	96,693	131,953	113,870		
Total ..	573,813	676,050	724,753	258,179	272,728	305,113	1,240,000	874,115	810,295	806,739	831,992	948,778	1,029,866		
Revenue—															
Passenger ..	557,420	664,955	717,374	250,097	242,646	282,553	..	769,086	736,530	753,425	807,517	907,601	999,927		
Mail contract ..	21,143	22,211	21,600	10,974	15,739	15,162	..	31,173	35,177	31,112	32,117	37,950	36,762		
Newspapers ..	13,294	14,271	15,517	5,377	7,202	9,752	..	11,799	13,234	16,949	18,671	21,473	25,269		
Goods and parcels ..	31,592	37,272	46,325	27,911	36,039	28,242	..	43,864	44,892	57,457	59,503	73,311	74,567		
Other ..	7,709	13,463	7,363	3,963	3,990	3,324	..	23,388	18,664	13,189	11,672	17,453	10,687		
Total ..	631,158	732,172	808,179	298,322	305,616	339,633	1,200,000	879,310	848,497	872,132	929,480	1,057,788	1,147,212		
Profits ..	59,627	80,291	..	49,828	34,204	..	..	..	52,437	74,404	100,455	114,495	..		
Losses ..	2,282	4,169	..	685	1,316	..	..	..	14,235	9,011	2,967	5,485	..		
Net profit ..	57,345	76,122	83,426	49,143	32,888	33,929	49,000‡	5,195	38,202	65,393	97,488	109,010	117,346		

\* For the period ended 31st March, 1938, depreciation is included in standing charges and not in running costs. Depreciation for the period amounts to £132,383.

‡ Loss.

\* For the period ended 31st March, 1938, interest has been excluded from overhead charges.



TABLE No. 14.—TRANSPORT LICENSING ACT, 1931.

AVERAGE OPERATING-EXPENSES AND REVENUE PER VEHICLE-MILE OF LICENSED PASSENGER-SERVICES (EXCLUSIVE OF THOSE LICENSED BY THE FOUR METROPOLITAN AUTHORITIES) FOR THE YEARS ENDED 31st MARCH, 1932 TO 1938, INCLUSIVE.

Item.	North Island Averages for Year ended 31st March,			South Island Averages for Year ended 31st March,			New Zealand Averages for Year ended 31st March,						
	1936.	1937.	1938.	1936.	1937.	1938.	1932, estimated.	1933.	1934.	1935.	1936.	1937.	1938.
Operating-expenses—													
Vehicle-running costs (petrol, oil, tires, repairs, maintenance, depreciation)*	d. 4.86	d. 4.89	d. 4.16*	d. 4.89	d. 4.80	d. 4.46*	d. 5.11	d. 5.07	d. 4.81	d. 4.84	d. 4.87	d. 4.87	d. 4.25
Vehicle-standing charges (license fees, wages, drawings in lieu of wages, insurance, garaging) (*)	3.18	3.72	5.06*	3.04	3.78	5.22*	3.07	3.01	3.07	3.19	3.14	3.74	5.19
General overhead charges (management and office expenses, interest, advertising, &c.)†	1.00	1.33	1.10†	1.17	1.55	1.31†	1.12	1.14	0.99	1.05	1.05	1.39	1.16
Total operating-expenses	9.04	9.94	10.32	9.10	10.13	10.99	9.30	9.22	8.87	8.99	9.06	10.00	10.51
Revenue—													
Passenger ..	8.79	9.78	10.23	8.82	9.01	10.18	..	8.11	8.06	8.39	8.89	9.56	10.21
Mail contract ..	0.33	0.33	0.31	0.39	0.58	0.55	..	0.33	0.39	0.35	0.35	0.40	0.38
Newspapers ..	0.21	0.21	0.22	0.19	0.27	0.35	..	0.12	0.14	0.19	0.20	0.23	0.26
Goods and parcels ..	0.50	0.55	0.66	0.98	1.34	1.02	..	0.46	0.49	0.64	0.65	0.77	0.76
Other ..	0.12	0.19	0.10	0.14	0.15	0.11	..	0.25	0.21	0.15	0.13	0.18	0.11
Total revenue	9.95	11.06	11.52	10.52	11.35	12.21	9.00	9.27	9.29	9.72	10.13	11.14	11.72
Net profits ..	0.91	1.12	1.20	1.42	1.22	1.22	..	0.05	0.42	0.73	1.07	1.14	1.21
Net losses ..	..	..	..	..	..	..	0.30	..	..	..	..	..	..

\* For the year ended 31st March, 1938, depreciation is included in standing charges and not in running-costs. The average depreciation per mile is 1.35d. † For the year ended 31st March, 1938, interest has been excluded from overhead charges (see text).

TABLE No. 15.—TRANSPORT LICENSING ACT, 1931.  
STATEMENT OF ASSETS AND LIABILITIES OF LICENSED PASSENGER-SERVICES (EXCLUSIVE OF THOSE LICENSED BY THE FOUR METROPOLITAN AUTHORITIES) AS AT  
31ST MARCH, 1932 TO 1938, INCLUSIVE.

Item.	North Island Totals.					South Island Totals.					New Zealand Totals.				
	1936.	1937.	1938.	1936.	1937.	1938.	1932 (estimated).	1933.	1934.	1935.	1936.	1937.	1938.		
Liabilities—															
Capital and reserves ..	£ 312,374	£ 433,948	£ 550,381	£ 166,985	£ 174,093	£ 273,948	£ ..	£ 915,694	£ 679,107	£ 585,347	£ 479,359	£ 608,041	£ 824,229		
Other liabilities ..	163,814	173,668	160,497	93,877	68,049	94,522	..	438,461	301,297	285,236	257,691	241,717	255,019		
Total ..	476,188	607,616	710,878	260,862	242,142	368,470	1,500,000	1,354,155	980,404	870,583	737,050	849,758	1,079,348		
Assets—															
Passenger-service vehicles ..	225,078	257,287	349,326	129,199	113,012	189,389	..	493,683	396,706	359,625	354,277	370,299	538,715		
Other vehicles ..	12,747	18,964	10,772	14,117	19,092	9,883	..	62,978	48,042	51,160	26,864	38,056	20,655		
Stocks on hand ..	18,824	24,334	23,542	12,537	11,060	5,860	..	52,393	43,283	38,610	31,361	35,394	29,402		
Plant and machinery ..	18,049	19,422	20,434	9,015	6,683	11,318	..	46,287	33,166	31,522	27,064	26,105	31,752		
Land and buildings ..	96,262	108,195	92,419	61,510	35,221	55,120	..	262,538	192,716	174,196	157,772	143,416	147,539		
Sundry debtors ..	31,137	29,620	23,543	16,210	18,970	9,573	..	93,269	85,513	67,479	47,347	48,590	33,116		
Cash on hand and at bank ..	46,136	53,175	41,215	11,607	19,926	10,534	..	109,075	72,797	94,235	57,743	73,101	51,749		
Other assets ..	27,955	96,619	149,627	6,667	18,178	76,793	..	233,932	108,181	53,756	34,622	114,797	226,420		
Total ..	476,188	607,616	710,878	260,862	242,142	368,470	1,500,000	1,354,155	980,404	870,583	737,050	849,758	1,079,348		

TABLE No. 16.—TRANSPORT LICENSING ACT, 1931.  
TRAFFIC AND FINANCIAL STATISTICS OF LICENSED PASSENGER-SERVICES FOR THE YEAR ENDED 31ST MARCH, 1938 (EXCLUSIVE OF SERVICES LICENSED BY THE FOUR METROPOLITAN LICENSING AUTHORITIES), CLASSIFIED ACCORDING TO THE TYPE OF SERVICE INVOLVED.

Type of Service. (For full details of type of service see text.)									
	Group 1: Local and Suburban Services (Buses).	Group 2: Centre to Surrounding Districts (Buses).	Group 3: Service Cars, mainly Pas- senger Reve- nue, Medium Distance.	Group 4: Service Cars, less than 50 per Cent. Revenue from Passengers.	Group 5: Service Coaches and Mixed Fleets, Centre to Centre.	Group 6: Services operated by Local Bodies (Buses).	Group 7: Services operated by Railway Department.	Not Classified.	Total.
Traffic statistics—									
Vehicle journeys	No. 833,153	235,640	39,703	24,530	46,041	255,354	598,950*	130,204	2,163,575
Passengers carried	No. 10,336,986	3,192,719	121,841	56,980	401,381	3,050,514	5,446,339	670,001	23,276,761
Average number of passengers per vehicle journey	No. 12.4	13.5	3.1	2.3	8.7	11.9	9.1	5.1	10.7
Vehicle-miles	Miles 4,088,629	5,333,184	1,324,316	1,009,557	3,942,158	915,484	4,858,109	2,037,924	23,509,361
Operating-expenses—									
Running-costs (lubricants, petrol, tires, repairs, and maintenance)	£ 65,826	98,637	17,892	10,649	61,769	16,965	104,854	39,384	415,976
Standing charges (license fees, wages, drawings in lieu of wages, depreciation, insurance, garage fees)	£ 117,194	114,928	17,487	14,100	60,197	27,237	107,688	41,189	500,020
Overhead charges (management, office expenses, advertising, &c., but excluding interest)	£ 18,281	21,360	3,207	1,176	26,231	6,962	27,732	8,921	113,870
Total	£ 201,301	234,925	38,586	25,925	148,197	51,164	240,274	89,494	1,029,866
Gross revenue	£ 221,795	265,887	40,461	25,603	169,789	47,265	276,527	99,885	1,147,212
Net surplus	£ 20,494	30,962	1,875	..	21,592	..	36,253	10,391	117,346
Net loss	£ ..	..	..	322	..	3,899	..	..	..
Total assets	£ 213,401	198,781	30,394	24,615	164,113	87,543	278,614	81,887	1,079,348
Net capital	£ 179,698	126,781	20,524	17,056	112,953	37,733	278,614	50,970	824,329
Average fare paid per passenger journey	s. d. 4.9d.	1/4.2	5/3.5	2/11.8	7/10.7	3.63d.	10.7d.	..	10.3d.
Number of returns included	No. 43	96	36	46	32	7	10	70	340
Number of services included	No. 82	153	40	46	47	33	60	107	568

\* Estimated.

TABLE No. 17. TRANSPORT LICENSING ACT, 1931.

OPERATING-EXPENSES AND REVENUE PER VEHICLE-MILE\* OF LICENSED PASSENGER-SERVICES FOR THE YEAR ENDED 31st MARCH, 1938 (EXCLUSIVE OF SERVICES LICENSED BY THE FOUR METROPOLITAN AUTHORITIES), CLASSIFIED ACCORDING TO THE TYPE OF SERVICE INVOLVED.

Item.	Type of Service.†						
	Group 1: Local and Suburban Services (Buses).	Group 2: Centre to Surrounding Districts (Buses).	Group 3: Service Cars, mainly Passenger Revenue, Medium Distance.	Group 4: Service Cars less than 50 per Cent. Revenue from Passengers.	Group 5: Service Coaches and Mixed Fleets, Centre to Centre.	Group 6: Services operated by Local Bodies (Buses).	Group 7: Services operated by Railways Department.
Benzine and oil .. ..	d. 2·64	d. 2·80	d. 2·15	d. 1·80	d. 2·35	d. 2·59	d. 2·49
Tires .. ..	0·46	0·51	0·39	0·36	0·52	0·62	0·35
Repairs and maintenance .. ..	0·77	1·08	0·70	0·37	1·03	1·44	2·31‡
Total running-costs .. ..	3·87	4·39	3·24	2·53	3·90	4·65	5·18
Wages and drawings in lieu of wages .. ..	4·65	2·88	2·08	2·16	2·15	5·02	2·63
Depreciation .. ..	1·30	1·36	0·65	0·60	1·00	1·56	1·74
Other standing charges .. ..	0·93	0·88	0·44	0·59	0·59	0·93	0·95§
Total standing charges .. ..	6·88	5·12	3·17	3·35	3·72	7·51	5·32
Overhead .. ..	1·03	0·95	0·58	0·28	1·56	1·56	1·37
Total operating-costs .. ..	11·78	10·46	6·99	6·16	9·18	13·72	11·87
Revenue .. ..	13·02	11·84	7·33	6·09	10·55	12·97	13·66
Net surplus .. ..	1·24	1·38	0·34	..	1·37	..	1·79
Net loss .. ..	..	..	..	0·07	..	0·75	..
Number of returns included .. ..	43	96	36	46	32	7	10
Number of licenses included .. ..	82	153	40	46	47	33	60

\* For method of calculation see text. † For basis of classification see text. ‡ Includes cost of washing vehicles (0·41d.). § Includes rent of Department buildings.

TABLE No. 18.—TRANSPORT LICENSING ACT, 1931.  
TABLES SHOWING THE NUMBER OF VEHICLES USED IN LICENSED PASSENGER-SERVICES (EXCLUSIVE OF THOSE LICENSED BY METROPOLITAN AUTHORITIES), CLASSIFIED  
ACCORDING TO LENGTH OF WORKING-LIFE AND TYPE OF SERVICE INVOLVED.\*

Class of Service.*	Number of Vehicles according to Age.										Original Cost.	Present Value.		
	Less than one Year.	One Year.	Two Years.	Three Years.	Four Years.	Five Years.	Six Years.	Seven Years.	Eight Years.	Nine Years.			Ten Years and over.	Total.
Local and suburban services (buses) (1)	18	21	20	15	11	4	8	9	7	11	23	147	£ 196,416	£ 103,154
Centre to surrounding districts (buses) (2)	26	48	41	27	20	25	15	10	18	13	14	257	220,515	118,462
Service-cars, mainly passenger revenue, medium distance (3)	9	7	8	6	1	1	7	5	8	5	9	66	32,693	14,820
Service-cars less than 50 per cent. of revenue from passengers (4)	9	14	4	6	2	2	2	3	6	3	6	57	20,163	13,590
Service-coaches and mixed-fleets, centre to centre (5)	16	19	14	17	8	20	10	5	12	16	26	163	147,705	63,324
Services operated by local bodies (buses) (6)	8	8	4	..	3	8	3	3	6	6	16	65	88,954	54,718
Services operated by Railway Department (7)	27	16	23	34	26	17	8	8	24	35	21	239	188,164	135,998
Unclassified	10	12	27	20	13	14	8	6	12	3	15	140	70,570	34,649
Totals	123	145	141	125	84	91	61	49	93	92	130	1,134	965,180	538,715

\* For basis of classification see text.

TABLE No. 19.—TRANSPORT LICENSING ACT, 1931.  
STATEMENT OF LIABILITIES OF LICENSED PASSENGER-SERVICES (EXCLUSIVE OF THOSE LICENSED BY METROPOLITAN AUTHORITIES), CLASSIFIED ACCORDING TO THE TYPE OF SERVICE INVOLVED.\*

Class.*	Group 1 : Local and Suburban Services (Buses.)	Group 2 : Centre to Surrounding Districts (Buses.)	Group 3 : Service Cars, mainly Pas- senger Rev- enue, medium Distance.	Group 4 : Service Cars less than 50 per Cent. revenue from passengers.	Group 5 : Service Coaches and Mixed Fleets, Centre to Centre.	Class 6 : Services oper- ated by Local Bodies. (Buses.).	Group 7 : Services operated by Railway Department.	Unclassified.	Total.	Percentage of Liabilities.
Trade creditors .. ..	..	..	..	..	..	..	..	..	..	..
Bank overdraft .. ..	..	..	..	..	..	..	..	..	..	..
Loan-money .. ..	..	..	..	..	..	..	..	..	..	..
Unpaid purchase-money on vehicles	..	..	..	..	..	..	..	..	..	..
	10,652	13,022	1,993	1,153	23,163	1,702	..	3,823	55,508	5.1
	3,908	12,862	4,696	886	19,825	13,928	..	14,695	70,800	6.6
	13,532	31,012	1,903	2,089	4,115	33,180	..	7,590	93,421	8.6
	5,611	15,493	1,278	3,431	4,057	..	..	5,420	35,290	3.3
Total outside liabilities .. ..	33,703	72,389	9,870	7,559	51,160	48,810	..	31,528	255,019	23.6
Capital .. ..	179,698	126,392	20,524	17,056	112,953	37,733	278,614	51,359	824,329	76.4
Total .. ..	213,401	198,781	30,394	24,615	164,113	86,543	278,614	82,887	1,079,348	100.0
Percentage of capital to total liabilities ..	84.2	63.6	67.5	69.2	68.8	43.6	100	62.0	76.4	..

\* For basis of classification see text.

TABLE No. 20.—TRANSPORT LICENSING ACT, 1931.

TABLE SHOWING THE POSITION WITH RESPECT TO APPLICATIONS FOR CONTINUOUS OR SEASONAL GOODS-SERVICE LICENSES HANDLED BY THE LICENSING AUTHORITIES FOR THE YEAR ENDED 31ST MARCH, 1939.

	Transport Licensing Authority for				Dominion Total.
	No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	
New applications—					
Received	171	136	41	66	414
Granted	124	108	34	52	318
Refused	24	18	7	6	55
Withdrawn	12	5	..	..	17
Adjourned	11	5	..	8	24
Renewal applications—					
Received	85	60	47	58	250
Granted	78	60	44	52	234
Refused	2	..	3	1	6
Withdrawn	1	..	..	..	1
Adjourned	4	..	..	5	9
Amendment applications—					
Received	250	191	102	145	688
Granted	196	159	87	96	538
Refused	46	18	15	30	109
Withdrawn	..	7	..	..	7
Adjourned	8	7	..	19	34
Transfer applications—					
Received	143	90	63	68	364
Granted	140	87	62	51	340
Refused	1	2	1	5	9
Adjourned	2	1	..	12	15
Total applications—					
Received	649	477	253	337	1,716
Granted	538	414	227	251	1,430
Refused	73	38	26	42	179
Withdrawn	13	12	..	..	25
Adjourned	25	13	..	44	82
Number of licenses reviewed	1	4	1	1	7
Number of licenses revoked or abandoned	44	22	22	12	100

TABLE No. 21.—TRANSPORT LICENSING ACT, 1931.  
TRAFFIC, REVENUE, EXPENDITURE, AND CAPITAL STATISTICS OF LICENSED GOODS-SERVICES FOR YEARS ENDED 31st MARCH, 1934, 1935, 1936, 1937, AND 1938.

	North Island Totals, Year ended 31st March,				South Island Totals, Year ended 31st March,				New Zealand Totals, Year ended 31st March,				
	1936.	1937.	1938.		1936.	1937.	1938.		1934.	1935.	1936.	1937.	1938.
Traffic statistics—													
Total number of operators ..	1,390	1,445	1,893		614	666	937		1,904	2,024	2,004	2,111	2,830
Number of vehicle authorities issued ..	2,378	2,613	3,407		990	1,140	1,452		2,906	3,355	3,368	3,753	4,559
Average mileage per vehicle ..	15,159	15,725	*14,897		13,552	13,632	*13,458		12,693	13,744	14,687	15,089	*14,466
Total vehicle-miles run ..	36,049,000	41,089,000	50,754,000	13,416,000	15,540,000	19,541,000	36,886,000	45,991,000	49,465,000	56,629,000	70,295,000		
Revenue and expenditure statistics—													
Total operating costs ..	1,308,000	1,662,000	2,263,000	497,000	497,000	646,000	895,000	1,463,000	1,822,000	1,805,000	2,308,000	3,158,000	
Total revenue ..	1,490,000	1,930,000	2,533,000	580,000	580,000	749,000	1,050,000	1,639,000	2,037,000	2,070,000	2,679,000	3,583,000	
Total profits ..	182,000	268,000	270,000	83,000	103,000	103,000	155,000	176,000	215,000	265,000	371,000	425,000	d.
Average operating costs per vehicle-mile ..	8.71	9.71	10.90	d.	8.89	9.97	11.17	d.	9.52	9.51	8.76	9.88	10.99
Average revenue per vehicle-mile ..	9.92	11.08	12.20	10.37	11.57	13.12	13.12	10.66	10.63	10.04	11.35	12.49	
Average profit per vehicle-mile ..	1.21	1.37	1.30	1.48	1.60	1.95	1.95	1.14	1.12	1.28	1.47	1.50	
Percentage of profit to operators' capital ..	20.71	21.35	19.33	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Percentage of profit to total capital invested	13.48	14.54	12.44	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Capital investment statistics—													
Total operators' capital ..	879,000	1,194,000	1,562,000	£	410,000	577,000	883,000	£	1,607,000	1,505,000	1,289,000	1,771,000	2,445,000
Total "outside" liabilities ..	471,000	559,000	863,000	164,000	164,000	202,000	344,000	820,000	732,000	635,000	761,000	1,207,000	
Total capital invested ..	1,350,000	1,753,000	2,425,000	574,000	574,000	779,000	1,227,000	2,427,000	2,237,000	1,924,000	2,532,000	3,652,000	
Average capital per operator ..	632	826	825	668	866	942	942	844	744	643	839	865	
Average "outside" liabilities per operator	339	387	456	303	303	367	367	431	361	317	360	425	
Average total capital invested per operator	971	1,213	1,281	935	1,169	1,309	1,309	1,275	1,105	960	1,199	1,290	

\* Average mileage adjusted to include services for which no returns were received for 1937-38, but received for 1936-37.



TABLE No. 22.—TRANSPORT LICENSING ACT, 1931.  
COMPARISON OF OPERATING-COSTS PER VEHICLE-MILE OF LICENSED GOODS SERVICES FOR 1937-38 WITH 1936-37.

	No. 1 Licensing District.		No. 2 Licensing District.		No. 3 Licensing District.		No. 4 Licensing District.		Dominion Totals.	
	1936-37.	1937-38.	1936-37.	1937-38.	1936-37.	1937-38.	1936-37.	1937-38.	1936-37.	1937-38.
Average mileage per vehicle	..	16,119	16,158*	14,579	13,892*	12,832	12,479*	14,840	15,089	14,590*
Average operating-costs per vehicle—	d. per Mile.	d. per Mile.	d. per Mile.	d. per Mile.	d. per Mile.	d. per Mile.	d. per Mile.	d. per Mile.	d. per Mile.	d. per Mile.
Running-costs (benzine, oil, tires, repairs) ..	4.03	4.22	3.91	4.28	3.77	4.03	3.99	4.15	3.95	4.20
Standing charges (wages, license fees, depreciation, garaging, &c.)	4.94	5.59	5.37	6.30	5.63	6.72	4.82	5.76	5.15	5.99
Overhead charges (management, office expenses, interest, &c.)	0.72	0.65	0.88	0.99	0.81	0.91	0.69	0.72	0.78	0.80
Total ..	9.69	10.46	10.16	11.57	10.21	11.66	9.50	10.63	9.88	10.99

\* Average mileage adjusted to include services for which no returns were received for 1937-38, but were received for 1936-37.

TABLE No. 23.—TRANSPORT LICENSING ACT, 1931.  
COMPARISON OF REVENUE AND PROFIT PER VEHICLE-MILE OF LICENSED GOODS-SERVICES FOR 1937-38 WITH 1936-37.

	No. 1 Licensing District.		No. 2 Licensing District.		No. 3 Licensing District.		No. 4 Licensing District.		Dominion Totals.	
	1936-37.	1937-38.	1936-37.	1937-38.	1936-37.	1937-38.	1936-37.	1937-38.	1936-37.	1937-38.
Average mileage per vehicle	..	16,119	16,158	14,579	13,892	12,832	12,479	14,840	15,089	14,590
Revenue per vehicle-mile—	d. per Mile.	d. per Mile.	d. per Mile.	d. per Mile.	d. per Mile.	d. per Mile.	d. per Mile.	d. per Mile.	d. per Mile.	d. per Mile.
General cartage revenue	10.42	10.54	11.26	12.38	10.91	12.98	10.63	12.32	10.78	11.71
Mail revenue ..	0.14	0.12	0.12	0.22	0.42	0.29	0.17	0.17	0.18	0.18
Passenger revenue ..	0.06	0.09	0.02	0.04	0.15	0.08	0.06	0.08	0.06	0.07
Other revenue ..	0.37	0.92	0.32	0.36	0.37	0.16	0.17	0.11	0.33	0.53
Total ..	10.99	11.67	11.72	13.00	11.85	13.51	11.03	12.68	11.35	12.49
Net profit ..	1.30	1.21	1.56	1.43	1.64	1.85	1.53	2.05	1.47	1.50

TABLE No. 24.—TRANSPORT LICENSING ACT, 1931.

STATEMENT OF OPERATING-COSTS PER VEHICLE-MILE AND RELATIVE STATISTICS OF LICENSED GOODS-SERVICES FOR 1937-38, EXCLUDING PUBLIC WORKS AND MAIL CONTRACTORS.	—			
	No. 1 Licensing District.	No. 2 Licensing District.	No. 3 Licensing District.	No. 4 Licensing District.
Average mileage per vehicle .. ..	15,885	13,431	12,016	14,310
Average age of vehicles (years) .. ..	2.82	3.41	2.67	2.80
Average gross load per vehicle (weight of vehicle and maximum pay-load) (tons) ..	5.32	5.73	6.05	5.68
Average maximum pay-load possible per vehicle (tons) ..	3.03	3.36	3.52	3.29
Operating-costs per vehicle-mile—	Pence per Mile.	Pence per Mile.	Pence per Mile.	Pence per Mile.
Running-costs .. ..	4.26	4.37	4.31	4.24
Wages or drawings in lieu of wages .. ..	3.75	4.30	4.87	4.03
Depreciation of vehicles .. ..	1.10	1.19	1.34	1.10
License fees, garaging, &c. .. ..	0.68	0.84	0.91	0.72
Management and office expenses .. ..	0.35	0.61	0.61	0.47
Other overhead charges .. ..	0.34	0.44	0.42	0.29
Total .. ..	10.48	11.75	12.46	10.85

TABLE No. 25.—TRANSPORT LICENSING ACT, 1931.

STATEMENT OF REVENUE AND PROFIT PER VEHICLE-MILE AND RELATIVE STATISTICS OF LICENSED GOODS-SERVICE OPERATORS FOR 1937-38, EXCLUDING PUBLIC WORKS AND MAIL CONTRACTORS.	—			
	No. 1 Licensing District.	No. 2 Licensing District.	No. 3 Licensing District.	No. 4 Licensing District.
Average mileage per vehicle .. ..	15,885	13,431	12,016	14,310
Revenue per vehicle-mile—	Pence per Mile.	Pence per Mile.	Pence per Mile.	Pence per Mile.
General goods cartage .. ..	10.57	12.75	14.30	12.75
Mail revenue .. ..	0.05	0.13	0.05	0.06
Passenger revenue .. ..	0.07	0.04	0.09	0.09
Other revenue .. ..	1.01	0.34	0.13	0.12
Total .. ..	11.73	13.26	14.57	13.02
Profit per vehicle-mile .. ..	1.25	1.51	2.11	2.17

TABLE No. 26.—TRANSPORT LICENSING ACT, 1931.  
STATEMENT OF OPERATING-COSTS PER VEHICLE-MILE BY LICENSED GOODS-SERVICES FOR 1937-38, EXCLUDING PUBLIC WORKS AND MAIL CONTRACTORS FOR VEHICLES GROUPED ACCORDING TO NUMBER OF TRUCKS OPERATED BY EACH LICENSEE.

	Owners of One Vehicle.	Owners of Two Vehicles.	Owners of Three Vehicles.	Owners of Four or more Vehicles.	Dominion Total.
Average mileage per vehicle	13,718	13,578	14,502	14,783	14,209
Average operating-costs per mile—	Pence per Mile.	Pence per Mile.	Pence per Mile.	Pence per Mile.	Pence per Mile.
Running-costs ..	3.80	4.11	4.41	4.67	4.30
Standing charges—					
Wages ..	4.19	4.04	4.03	4.15	4.11
Depreciation of vehicles ..	1.13	1.20	1.14	1.19	1.17
License fees, insurance, garaging ..	0.69	0.77	0.76	0.81	0.77
	6.01	6.01	5.93	6.15	6.05
Overhead charges—					
Management and office expenses ..	0.31	0.38	0.45	0.66	0.48
Other charges ..	0.21	0.26	0.38	0.52	0.37
	0.52	0.64	0.83	1.18	0.85
Total ..	10.83	10.76	11.17	12.00	11.20

TABLE No. 27.—TRANSPORT LICENSING ACT, 1931.  
STATEMENT OF REVENUE AND PROFIT PER VEHICLE-MILE OF LICENSED GOODS-SERVICES FOR 1937-38, EXCLUDING PUBLIC WORKS AND MAIL CONTRACTORS FOR VEHICLES GROUPED ACCORDING TO NUMBER OF TRUCKS OPERATED BY EACH LICENSEE.

	Owners of One Vehicle.	Owners of Two Vehicles.	Owners of Three Vehicles.	Owners of Four Vehicles.	Dominion Total.
Average mileage per vehicle	13,718	13,578	14,502	14,783	14,209
Revenue per vehicle-mile—	Pence per Mile.	Pence per Mile.	Pence per Mile.	Pence per Mile.	Pence per Mile.
General cartage revenue ..	10.62	11.74	12.38	13.11	12.10
Mail revenue ..	0.07	0.07	0.04	0.09	0.07
Passenger revenue ..	0.08	0.13	0.05	0.04	0.07
Other revenue ..	0.75	0.75	0.39	0.17	0.56
Total ..	11.52	12.40	13.06	13.41	12.80
Profit per vehicle-mile ..	1.19	1.64	1.89	1.71	1.60

TABLE No. 28.—TRANSPORT LICENSING ACT, 1931.  
STATEMENT OF OPERATING-COSTS PER VEHICLE-MILE AND RELATIVE STATISTICS FOR LICENSED PUBLIC WORKS AND LOCAL-BODY CONTRACTORS FOR 1937-38.

	No. 1 Licensing District.	No. 2 Licensing District.	No. 3 Licensing District.	No. 4 Licensing District.	Dominion Total.
Average mileage per vehicle	13,682	11,329	10,543	11,765	12,365
Average age of vehicles, years	2.41	2.24	2.01	1.95	2.27
Average gross load per vehicle (weight of vehicle plus maximum load), tons	5.07	5.10	5.17	5.53	5.13
Average maximum possible pay-load, tons	2.87	2.85	2.94	3.16	2.90
Average operating-costs per vehicle-mile—	Pence per Mile.	Pence per Mile.	Pence per Mile.	Pence per Mile.	Pence per Mile.
Running costs ..	4.38	4.53	4.12	4.15	4.35
Standing charges—					
Wages ..	4.38	5.44	5.21	4.36	4.76
Depreciation of vehicles ..	1.31	1.32	1.38	1.42	1.33
Licence fees, insurance, garaging ..	0.71	0.78	0.85	0.78	0.75
	— 6.40	— 7.54	— 7.44	— 6.56	— 6.84
Overhead charges—					
Management and office expenses ..	0.23	0.57	0.45	0.23	0.34
Other charges ..	0.28	0.21	0.21	0.21	0.24
	— 0.51	— 0.78	— 0.66	— 0.44	— 0.58
Total ..	11.29	12.85	12.22	11.15	11.77

TABLE No. 29.—TRANSPORT LICENSING ACT, 1931.  
STATEMENT OF REVENUE AND PROFIT PER VEHICLE-MILE FOR LICENSED PUBLIC WORKS AND LOCAL-BODY CONTRACTORS FOR 1937-38.

	No. 1 Licensing District.	No. 2 Licensing District.	No. 3 Licensing District.	No. 4 Licensing District.	Dominion Total.
Average mileage per vehicle	13,682	11,329	10,543	11,765	12,365
Revenue per vehicle-mile—	Pence per Mile.	Pence per Mile.	Pence per mile.	Pence per Mile.	Pence per Mile.
General goods revenue ..	1.37	..	0.43	..	0.83
Mail revenue ..	..	..	..	..	..
Passenger revenue ..	0.02	0.02	0.04	..	0.02
Public-works and local-body contracting ..	11.22	14.05	13.45	13.08	12.32
Other revenue ..	..	0.34	0.09	0.01	0.09
Total ..	12.61	14.41	14.01	13.09	13.26
Profit per vehicle-mile ..	1.32	1.56	1.79	1.94	1.49

TABLE No. 30.—TRANSPORT LICENSING ACT, 1931.  
STATEMENT OF OPERATING-COSTS PER VEHICLE-MILE AND RELATIVE STATISTICS FOR LICENSED GOODS-SERVICE MAIL CONTRACTORS FOR 1937-38.

	No. 1 Licensing District.	No. 2 Licensing District.	No. 3 Licensing District.	No. 4 Licensing District.	Dominion Total.
Average mileage per vehicle	17,340	18,644	22,135	19,566	18,738
Average age of vehicles, years	2.46	2.63	3.05	3.21	2.74
Average gross load per vehicle (weight of vehicle plus maximum pay-load), tons	2.03	1.56	1.51	1.42	1.69
Average maximum possible pay-load, tons	1.06	0.80	0.87	0.72	0.87
Operating-costs per vehicle-mile—					Pence per Mile.
Running costs ..	2.52	1.79	1.58	2.07	1.96
Standing charges—					
Wages ..	2.69	2.18	1.87	2.39	2.24
Depreciation ..	0.72	0.54	0.36	0.58	0.54
License fees, insurance, garaging ..	0.29	0.19	0.18	0.17	0.21
	3.7	2.91	2.41	3.14	2.99
Overhead charges—					
Management and office expenses ..	0.06	0.17	0.15	0.06	0.12
Other charges ..	0.07	0.05	0.08	0.10	0.07
	0.13	0.22	0.23	0.16	0.19
Total ..	6.35	4.92	4.22	5.37	5.14

TABLE No. 31.—TRANSPORT LICENSING ACT, 1931.

	No. 1 Licensing District.	No. 2 Licensing District.	No. 3 Licensing District.	No. 4 Licensing District.	Dominion Total.
Average mileage per vehicle (miles) ..	17,340	18,644	22,135	19,566	18,738
Revenue per vehicle-mile—					Pence per Mile.
General goods revenue ..	1.35	0.57	0.82	2.28	1.11
Mail revenue ..	2.78	2.71	2.66	2.66	2.72
Passenger revenue ..	0.76	0.29	0.02	0.04	0.29
Other revenue ..	1.36	0.89	0.45	0.03	0.75
Total ..	6.25	4.46	3.95	5.01	4.87
Loss per vehicle-mile ..	0.10	0.46	0.27	0.36	0.27

TABLE No. 32.—COMMERCIAL AIR TRANSPORT, 1938-39.  
OPERATING STATISTICS FOR COMMERCIAL AIRCRAFT SERVICES FOR YEAR ENDED 31ST MARCH, 1939.

Service.	Trips.		Total Hours Flown.	Total Miles Flown.	Passengers.		Freight carried, lb.	Mail carried, lb.	Passenger-miles.	Freight Ton-miles.	Mail Ton-miles.
	Scheduled.	Flown.			Paying.	Non-paying.					
Cook Strait Airways, Ltd.—											
Wellington-Blenheim-Nelson	6,112	5,882	3,731	466,429	23,208	409	81,340	40,314	1,404,580	2,303	1,093
Nelson - West Coast	380	342	431	53,897	614	87	4,283	3,248	94,614	241	183
Air-taxi services	52	52	48	5,977	327						
Total for company	6,544	6,276	4,210	526,303	24,149	496	85,623	43,562	1,499,194	2,544	1,276
Union Airways of New Zealand, Ltd.—											
Auckland-Wellington	1,030	1,023	2,549	351,950	7,891	184	15,887	74,746	1,788,216	1,811	8,391
Palmerston North - Dunedin (ceased 21/10/38)	422	418	1,764	209,156	5,063	51	8,820	51,014	1,171,841	1,046	7,618
Palmerston North - Christchurch (commenced 22/10/38)	292	292	702	86,140	2,179	47	3,032	9,373	424,550	260	937
Wellington-Dunedin (commenced 21/10/38)	324	324	912	127,980	3,291	39	8,396	38,563	837,665	1,134	5,300
Palmerston North - Gisborne (commenced 1/7/38)	1,102	1,099	1,414	144,884	6,150	27	4,151	16,551	660,300	244	1,022
Auckland-Gisborne (commenced March, 1939)	11	11	22	2,365	131	6	60	150	21,055	3	11
Air-taxi services	347	347	228	26,100	3,560		5,866				
Total for company	3,528	3,514	7,591	948,575	28,205	354	46,232	190,397	4,903,627	4,498	23,279
East Coast Airways—											
Palmerston North - Gisborne (ceased 30/6/38)	642	611	594	60,428	2,855	85	11,933	7,407	318,255	123	81
Air-Taxi service (ceased 30/6/38)	9	9	1	144	57						
Total for company	651	620	595	60,572	2,912	85	11,933	7,407	318,255	123	81
Air Travel (N.Z.), Ltd.											
Hokitika-Okuru	974	967	470	49,216	418	27	28,346†	74,863†	67,955†	1,500**†	4,000**†
Inchbonnie-Weheka	462	459	200	21,950	205	13					
Air-taxi service	2,743	2,736	1,265	130,666	3,483	142					
Total for company	4,179	4,162	1,935	201,832	4,106	182	28,346	74,863	67,955	1,500	4,000
Grand total, 1938-39	14,902	14,572	14,331	1,737,282	59,372	1,117	172,134	316,229	6,789,031	8,665	28,636
Grand total, 1937-38	10,069	9,818	11,648	1,364,351	46,263	1,137	81,792	214,357	Not available.		

\* Estimated.

† Includes freight mail, &amp;c., for both route services.

TABLE No. 33. —COMMERCIAL AIR TRANSPORT, 1934-38.  
TABLE SHOWING THE PRINCIPAL OPERATING DATA RELATING TO COMMERCIAL AIR TRANSPORT SERVICES  
OPERATING IN THE DOMINION DURING THE CALENDAR YEARS 1934 TO 1938.

Calendar Year.			Licensed Services.	Machines.	Seating- capacity (excluding Pilots).	Passengers carried.	Mails carried.	Goods carried.	Mileage flown.
			Number.	Number.	Number.	Number.	lb.	lb.	
1934	..	..	1	1	4	50	2,000	500	4,200
1935	..	..	2	3	20	4,203	14,789	11,680	186,391
1936	..	..	5	10	77	20,718	84,924	38,339	706,233
1937	..	..	7	15	119	37,178	166,344	67,927	1,205,965
1938	..	..	8	19	141	60,967	299,570	172,530	1,759,984

*Approximate Cost of Paper.* —Preparation, not given : printing (1,535 copies, including graphs and maps), £142

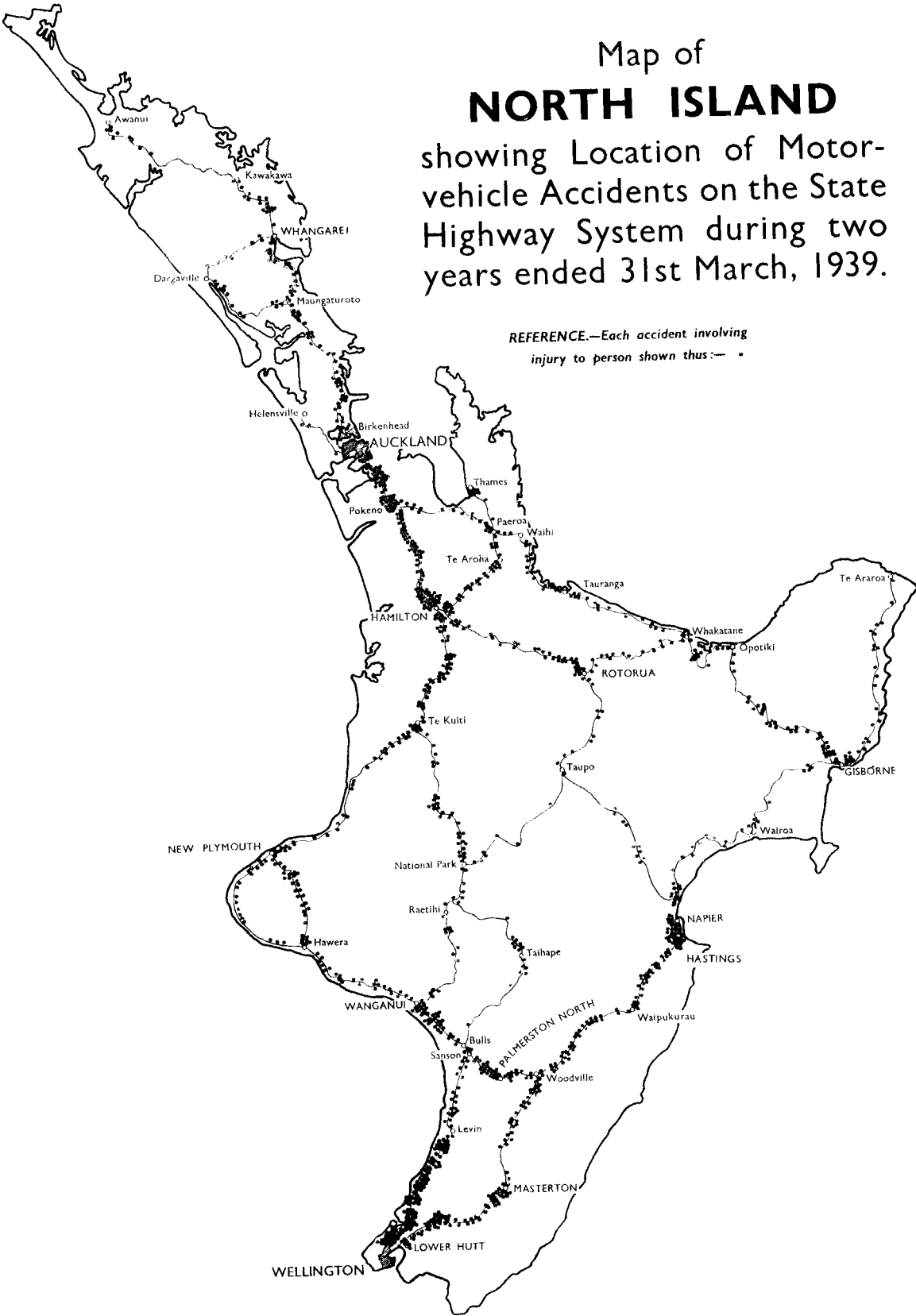




Map of  
**NORTH ISLAND**

showing Location of Motor-vehicle Accidents on the State Highway System during two years ended 31st March, 1939.

REFERENCE.—Each accident involving injury to person shown thus:— •





Map of  
**SOUTH ISLAND**

showing Location of Motor-  
vehicle Accidents on the State  
Highway System during two  
years ended 31st March, 1939.

REFERENCE.—Each accident involving  
injury to person shown thus: — •

