1937.
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,— Transport Department, 23rd September, 1937.

Herewith I have the honour to submit the annual report of the Transport Department for the year ended 31st March, 1937.

I have, &c.,
G. L. LAURENSON, Commissioner of Transport.

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REPORT.

1. INTRODUCTION.

THE summarized outstanding points recorded for the year are as follows:—

(*a*) An expansion of business in both passenger and freight services licensed under the Transport Licensing Act.

(*b*) Good progress made by the four District Transport Licensing Authorities in the licensing and control of the motor passenger and freight services, and in improving the labour conditions in the licensed motor freight services.

(*c*) New car registrations during the year were 25,796, or a daily average of over 70, the highest figure yet recorded; while the registrations of commercial vehicles (8,999) again exceeded the previous peak year.

(*d*) The estimated quantity of petrol consumed by motor transport during the year was just over 72,000,000 gallons, or 9,000,000 gallons in excess of the figure for the previous peak year, 1930.

(*e*) The receipts from all classes of motor taxation (including Customs duties in respect of vehicles and parts) was just under £5,350,000, nearly £900,000 ahead of the figure for the previous year.

(*f*) The estimated annual expenditure on roads, streets, and bridges during 1935–36 amounted to £8,100,000, or £400,000 in excess of the figure for the previous year.

(*g*) A further 2,068 miles of roads were classified according to load-limits during the year. This brings the percentages of roads classified to 95 per cent. for main highways and 54 per cent. for rural roads.

(*h*) Persons killed in road accidents numbered 213 during the year, an increase of 10 over the figure for the previous year.

(*i*) A representative conference of all interested sections of the public was convened by the Hon. the Minister of Transport to consider the road-accident problem.

(*j*) A National Road Safety Council was set up to act in an advisory capacity to the Hon. the Minister of Transport.

(*k*) The Traffic Regulations were overhauled, and a Road Code for the guidance of all classes of road-users was prepared. Copies of the Road Code and summary of the regulations supplied to every home and to motorists.

(*l*) Far-reaching measures for road safety instituted.

(*m*) As from 1st April, 1937, the Transport Department assumed control of Traffic Inspectors formerly under the control of the Main Highways Board.

(*n*) General speed-limit of 30 m.p.h. adopted in borough and town districts and closely populated areas.

(*o*) New comprehensive system of statistics relating to road-traffic accidents instituted.

(*p*) Probation scheme for education of traffic offences instituted.

(*q*) Considerable increases during calendar year 1936 in convictions for offences of negligent or dangerous driving, excessive speed, and drunk in charge of motor-vehicle.

(*r*) System of six-monthly inspections for mechanical fitness of all classes of motor-vehicles, not already required to be inspected, instituted.

(*s*) New provisions relating to the maximum driving-hours and periods of rest in respect of the drivers of all commercial motor-vehicles came into operation.

(*t*) The claims paid and estimated liability in respect of outstanding claims under the third-party insurance scheme again exceeded the revenue from premiums received.

(*u*) The number of claims during the year under the agreement relating to "hit-and-run" drivers was 30, compared with 38 for the previous year.

(*v*) Institution of policy of single ownership of road and rail services over certain long-distance routes with a view to securing the co-ordination of these services.

(*w*) Expansion in commercial air transport services.

2. 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, 1936, forty-four 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 seven years ended 31st May, 1936. 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	161,352	69·03
1933	229,133	151,095	65·94
1934	221,734	198,614	89·57
1935	211,709	288,554	136·30
1936	230,696	320,621	138·98
Totals	1,604,874	1,508,995	94·03

(*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 1937–38 :—

Class.	Old Premiums.	New Premiums.
Class 5	41s.	45s.
Class 6	27s.	30s.
Class 8B	£6, plus 5s. for each seat over 10 (maximum, £10)	£6, plus 2s. 6d. for each seat over 10 (maximum, £8).
Class 8C	£6, plus 15s. for each seat over 7 (maximum, £12 15s.)	£6, plus 7s. 6d. for each seat over 7 (maximum, £9 7s. 6d.).

(*c*) "Hit-and-Run" Drivers.

The table hereunder indicates the number of claims and the amounts paid out under the agreement gazetted on the 29th October, 1931, at page 3023, and relating to third-party insurance for victims of "hit-and-run" drivers, the negligence of whom has resulted in personal injuries to the victims.

The table indicates that the previous rapid increase in numbers of this type of accident has not only been checked, but that there is a drop of over 20 per cent. as between this year's figures and those of last year.

No doubt the increase in maximum penalty brought into effect in August, 1936, for this type of offence (£500 fine or five years' imprisonment, as against the former £20 fine) has assisted this reduction in the number of these claims, although it was effective for only part of the year covered.

Table of Claims.

Year ending 31st May,	Number of Accidents for which Claims made.	Amount paid out to Claimants.	Expenses incurred by Underwriters 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	478 9 2
1937	30	1,372 19 3	215 6 1
Totals	125	6,459 10 7	1,462 6 6

3. MOTOR-VEHICLES ACT, 1924.

(*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

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

An interesting feature of the above tables is the response shown by the car, as compared with the commercial vehicle, to conditions of trade boom or depression. The car was influenced earlier by the depression, and has been slower in reacting to the improved conditions. Motor-cycles are falling behind, due, no doubt, to the increasing numbers of small cars. The commercial vehicle was influenced to a relatively smaller degree by the depression, and its rate of entry into our traffic system, taken over a number of years, seems to be accelerating.

(*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 1937, inclusive :—

Year ended 31st March,	Great Britain.	United States of America or Canada.	Other Countries.	Total Registrations.
		Motor-cars.		
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
Totals ..	52,761	101,021	1,685	155,467
		Commercial Vehicles.		
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
Totals ..	9,378	33,709	8,119	51,206
		Motor-cycles.		
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
Totals ..	27,867	7,947	185	35,999

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.
Motor-cars.				
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
Totals ..	36	63	1	100
Commercial Vehicles.				
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
Totals ..	23	77	..	100
Motor-cycles.				
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
Totals ..	77	22	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. This increase during a boom period is no doubt due to the increased prosperity of the community.

A somewhat similar trend is noticeable in the case of commercial vehicles, excepting for the increase in vehicles from Great Britain in 1936–37. In this case the imports from the United States of America and Canada out-numbered commercial-vehicle imports from Great Britain by over 2 to 1. It should be noted that the figures from " other countries " has been omitted from the percentage table ; this is because practically all of the figures under that heading refer to trailers, 2,003 of the 2,053 vehicles under that heading for 1936–37 being for 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, 1937.

The appended figures show the number of motor-vehicles licensed for the year 1936–37 as at 31st March, 1937 (the licensing year expires on 31st May each year):—

Type of Vehicle.	North Island.	South Island.	New Zealand Total.
Cars	111,869	58,135	170,004
Light trucks (2 tons and under laden)	17,386	8,903	26,289
Heavy trucks (over 2 tons laden)	12,927	6,333	19,260
Passenger trucks	790	344	1,134
Omnibuses	445	174	619
Taxis	1,133	564	1,697
Service cars	419	284	703
Rental and private-hire cars	346	224	570
Dealers' cars	1,103	482	1,585
Local-authority road vehicles	1,156	921	2,077
Government vehicles	1,450	569	2,019
Trailers	2,807	2,637	5,444
Dealers' motor-cycles	96	50	146
Motor-cycles	15,082	9,119	24,201
Totals	167,009	88,739	255,748

Table No. 1 of the Appendix shows the number of motor-vehicles registered as at 31st December, 1936, grouped according to highway districts.

The number of motor-vehicles licensed as at 31st March, 1937, 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, 1937, were as under:—

Type of Vehicle.	1934–35 Register.	1935–36 Register.	Total.
Cars	3,067	4,808	7,875
Light trucks (2 tons and under laden)	2,077	3,054	5,131
Heavy trucks (over 2 tons laden)	880	1,332	2,212
Service cars	23	37	60
Taxis	31	41	72
Rental and private-hire cars	12	25	37
Contract vehicles and passenger trucks	27	49	76
Omnibuses	15	17	32
Traction-engines	41	74	115
Trailers	508	795	1,303
Tractors	73	216	289
Motor-cycles	2,771	4,075	6,846
Other motor-vehicles	15	47	62
Totals	9,540	14,570	24,110

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 1933–34 registrations cancelled on 1st June, 1936, in accordance with this section :—

Type of Vehicle.	Number.
Cars	2,808
Light trucks	1,700
Heavy trucks	715
Service cars	42
Taxis	21
Passenger trucks	..
Rental and private-hire cars	1
Motor-buses	15
Traction-engines	33
Trailers	472
Tractors	110
Motor-cycles	2,523
Other vehicles	26
Total	8,466

(*d*) Motor-vehicle Registration Plates.

The following classes of number-plates were assigned during the licensing year 1936–37 :—

(1) For private cars, plates *without initial letter* from 1001 onwards, the highest number manufactured being 185,000.
(2) For "private-hire" and "rental" cars, plates without letter 1–999, 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, 1937, are given hereunder : —

Class of Vehicle.	Averages.			
	1934.	1935.	1936.	1937.
	Number.	Number.	Number.	Number.
Cars	117,867	124,204	135,220	152,819
Trucks, light, up to 2 tons laden	17,643	19,840	21,281	23,499
Trucks, heavy, over 2 tons laden	13,708	14,394	15,539	17,310
Omnibus	518	511	531	575
Taxis	1,493	1,518	1,627	1,659
Rental cars	131	215	333	474
Service cars	965	735	670	656
Dealers' cars	853	1,003	1,221	1,475
Local-body road vehicles	1,147	1,198	1,430	1,762
Government vehicles	1,378	1,444	1,546	1,806
Dealers' motor-cycles	127	123	128	133
Motor-cycles	21,113	21,063	20,602	20,631
Trailers	2,400	2,107	2,894	3,796
Passenger trucks	*	628	795	977
Totals	179,343	188,983	203,817	227,572

* 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 motor-cycles and service cars, which have remained practically stationary. Motor-cars on the road show a 13-per-cent. increase on 1935–36, while trucks have increased by 11 per cent. It is interesting to note that the total number of vehicles in use has increased by 27 per cent. since 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 nine calendar years :—

Calendar Year.	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

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

The total gallons are calculated from the quantity of motor-spirits on which petrol-tax was paid. A tremendous increase in motor-vehicle petrol-consumption took place in 1936 as compared with 1935, and the previous peak year 1930. The figures show a 9,300,000-gallon increase on the previous year.

4. MOTOR-SPIRITS TAXATION ACT, 1927.

The following data show the yield from and distribution of petrol-tax plus surtax on foreign petrol imports since the inception of the tax in 1928.

(*a*) Yield.

Year ended 31st March,	Gross Yield.	Refunds.	Net Yield.	Expenses of Collection and Refund.	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
Total up to 31st March, 1937	19,330,795	1,128,194	18,202,601	161,937	18,040,664

* 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.

(*b*) 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
Total	7,498,490	9,616,223	925,951	18,040,664

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, 1937, together with cumulative figures showing the total distribution from the inception of the petrol-tax up to the 31st March, 1937, is given in Table No. 4 in the Appendix.

(*c*) Refunds of Petrol-tax.

Refunding of Duty on Motor-spirits.

In last year's report attention was drawn to the fact that the number of claims for refunds of duty on motor-spirits had a rising tendency each year. The position was reversed during the year 1936 as 3,105 less claims were authorized for payment. Notwithstanding this decrease the value of the refunds made increased by £12,506. The increase in the amount refunded is attributed to the large claims for refunds made by owners of aircraft and to the increased use of tractors on farms. The decline in the number of claims is due to a considerable number of farmers installing electric power to operate their milking-machinery plants and to the increased use of high-compression engines using oil fuel.

The numbers of claims handled and the total amount refunded during the period 1928-36 are set out hereunder:—

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

The particulars of the claims paid during each of the quarterly periods in 1936 are as follows:—

Quarter.	Number of Claims.	Amount refunded.
		£ s. d.
March	14,481	47,083 9 11
June	13,974	50,201 4 2
September	11,618	40,086 14 0
December	12,269	39,018 12 6

During the calendar year 1936, 2,938 claims were made during the second month following the close of the respective quarterly periods, and they were subject to a reduction of 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.

The motor-spirit concerned in the foregoing refunds was consumed as under :—

How consumed.	Gallons.	Percentage of Total.
Motor-vehicle (farm tractor, mule, &c.)	2,052,600	30·7
Milking-machinery	1,520,000	22·7
Fishing and other vessels	850,000	12·7
Miscellaneous stationary machinery	825,000	12·3
Local-authority and other road vehicles ..	638,000	9·5
Lighting and heating plants	220,000	3·3
Manufacturing, cleaning, scientific, &c. ..	190,000	2·8
Shearing-machinery	130,000	2·0
Aircraft	260,000	4·0
Total	6,685,600	100·0

5. 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. As the result of the amending legislation the number of vehicles subject to the tax has increased from 142 to 198.

The figures for the last four 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
Total	..	9,198

6. ROAD FINANCE.

(*a*) Dominion's Road Bill, 1934-36.

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 figures which have been analysed relate to the three years ended 31st March, 1936.

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 previous reports.

The following table shows the expenditure under the various headings for the three years ended 31st March, 1936 :—

——	1933–34.	1934–35.	1935–36.
	£	£	£
Maintenance—			
Main highways	954,656	1,501,539	1,632,453
Urban roads and streets	397,371	392,032	406,775
Other roads	718,943	955,994	1,098,366
Total	2,070,970	2,849,565	3,137,594
Construction—			
Main highways	286,709	428,072	624,943
Urban roads and streets	1,104,047	944,235	903,918
Other roads	1,240,920	1,172,529	1,102,730
Total	2,631,676	2,544,836	2,631,591
Interest and sinking fund charges—			
Main highways	632,846	612,129	605,403
Urban roads and streets	585,900	554,400	580,979
Other roads	1,136,070	1,136,515	1,122,408
Total	2,354,816	2,303,044	2,308,790
Total annual road bill—			
Main highways	1,874,211	2,541,740	2,862,799
Urban roads and streets	2,087,318	1,890,667	1,891,672
Other roads	3,095,933	3,265,038	3,323,504
Total	7,057,462	7,697,445	8,077,975

The principal points emerging from the figures for the years ended 31st March, 1935, have been commented upon in previous annual reports. The figures for 1935–36, as compared with those of the previous year, are commented on below :—

(1) *Maintenance.*

(*a*) *Main Highways.*—Expenditure on this item during 1935–36 increased by £130,000. The moneys expended by the Main Highways Board on maintenance increased by £90,000, while county expenditure on main highways maintenance out of revenue increased by £40,000.

(*b*) *Other Roads.*—Expenditure under this head increased by £142,000 due to County Councils increasing their expenditure out of revenue by £106,000 and to the Public Works increasing their expenditure out of the Consolidated Fund.

(2) *Construction.*

(*a*) *Main Highways.*—This item has increased by £197,000, of which the increase in Main Highways Board expenditure accounts for £146,000 and the increase in County Council payments for the balance, £30,000 being loan-moneys and £15,000 being unemployment-relief expenditure.

(*b*) *Urban Roads and Streets.*—This item has decreased by £40,000, mainly due to a decrease in borough payments on construction out of loan.

(*c*) *Other Roads.*—A decrease of £70,000 is shown under this heading, due largely to a decrease in Public Works Department expenditure by £65,000. Public Works expenditure from the unemployment funds decreased by £137,000, but expenditure from the Public Works Fund increased by £72,000.

(3) *Loan Charges.*

The increases under this head have been due to an increase in interest and sinking-fund charges to the rates ruling in 1933–34.

(4) *Total Road Bill.*

The following table, showing the percentages of the total expenditure 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

(*b*) Sources of Money expended on Road Bill, 1933–34 to 1935–36.

The Department has also analysed the expenditure on roads during the three years ended 31st March, 1936, 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.
Main highways—	£	£	£
Loan	237,469	360,118	549,546
Local rates	431,262	471,851	502,408
Unemployment-taxation	89,612	280,751	45,638
General taxation	157,257	151,229	157,403
Motor-taxation	958,611	1,277,791	1,607,804
Total	1,874,211	2,541,740	2,862,799
Urban roads—			
Loan	70,291	71,307	118,745
Local rates	1,153,032	1,072,108	1,080,048
Unemployment-taxation	616,278	475,306	384,050
General taxation	..	..	..
Motor-taxation	247,717	271,946	308,829
Total	2,087,318	1,890,667	1,891,672
Other roads—			
Loan	381,090	398,371	466,152
Local rates	734,844	781,010	863,458
Unemployment-taxation	797,086	714,887	580,000
General taxation	971,955	985,081	1,010,496
Motor-taxation	210,958	385,689	403,398
Total	3,095,933	3,265,038	3,323,504
All roads—			
Loan	688,850	829,796	1,134,443
Local rates	2,319,138	2,324,969	2,445,914
Unemployment-taxation	1,502,976	1,470,944	1,009,688
General taxation	1,129,212	1,136,310	1,167,899
Motor-taxation	1,417,286	1,935,426	2,320,031
Total	7,057,462	7,697,445	8,077,975

The principal points emerging from the 1935–36 figures as compared with those of previous years are as follows :—

(1) *Loan-money.*

This item shows an increase of £305,000 over the previous year's figures and now represents 14 per cent. of the total money expended. This is still in marked contrast to the year 1930–31, when this item represented almost 30 per cent. of the total.

(2) *Local Rates.*

This item has remained practically stationary and is still the chief source of money for expenditure on roads, this year's figure comprising 30·3 per cent. of the total.

(3) *Unemployment Taxation.*

The amount expended this year shows a sharp decline, approximately £460,000, and this item now accounts for only 12·5 per cent. of the total.

(4) *General Taxation.*

This item has remained almost constant. This year's figure represents 14·5 per cent. of the total, compared with 16 per cent. in 1933–34.

(5) *Motor-taxation.*

Motor-taxation again shows a substantial increase, this year's figure being £385,000 above that for the previous year. This item comprises 28·7 per cent. of the road bill and is gradually approaching the amount provided by local rates. Whereas the amount expended from local rates in 1930–31 exceeded that from motor-taxation by some £1,200,000, the excess is now only £125,000.

Details of the increase in motor-taxation generally are shown in the Appendix of this report.

(6) *General.*

The following table indicates the approximate percentages of the various sources of revenue comprised in the total expenditure on roads during the three years ended 31st March, 1936 :—

Item.	1933–34.	1934–35.	1935–36.
	Per Cent.	Per Cent.	Per Cent.
Loan	9·8	10·8	14·0
Local rates	32·9	30·2	30·3
Unemployment taxation ..	21·3	19·1	12·5
General taxation	16·0	14·8	14·5
Motor-taxation	20·0	25·1	28·7
Total	100·0	100·0	100·0

(*c*) Annual Charges per Mile on Roads, Streets, etc., 1934–36.

The following table shows the annual expenditure for the three years ended 31st March, 1936, 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
Urban roads and streets ..	1934	4,086	97	143	240
	1935	4,035	97	137	234
	1936	4,059	100	143	243
Other roads	1934	36,010	20	32	52
	1935	36,947	26	31	57
	1936	36,350	30	31	61
Total, all roads ..	1934	51,071	41	46	87
	1935	52,158	55	44	99
	1936	52,058	60	44	104

Tables Nos. 5 and 6 of the Appendix show the lengths of various classes of roads, streets, and bridges during the years from 1922 to 1936 inclusive.

(*d*) 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 eleven years.

The total amount for 1936–37 was £5,348,019, the highest figure yet recorded. There has been an increase in every class of revenue, and the increase of £895,568 over the previous year is made up as follows: Customs duties on motor-vehicles and parts, £263,415; motor-spirits tax, £473,846; tire-tax, £52,585; fees and fines under the Motor-vehicles Act, £61,730; and other fees and taxes, £43,992.

7. HEAVY MOTOR-VEHICLE REGULATIONS, 1932.

(*a*) Speeds of Heavy Motor-vehicles.

During the year a conference was called by the Department inviting representatives of road-controlling authorities and users of heavy motor-vehicles to discuss proposals for increases in maximum allowable speeds for the various classes of passenger and goods vehicles.

It was felt that due to recent improvements in vehicle design, particularly the trend towards general use of low-pressure tyres, roads generally would sustain no greater damage at somewhat higher speeds than was the case when the regulations were formulated in 1932.

The higher speeds would also permit of more economic vehicle operation as the speed-limits in existence were in each case much lower than the average speeds for which the modern vehicles are designed.

Following the Department's investigations and the discussions at this conference an amendment to the regulations was effected altering the maximum permissible speeds as follows:—

(*i*) *Passenger-vehicles.*

Maximum Gross Weight.	Former Speed-limit.	Amended Speed-limit.
2 tons to 4½ tons	35 m.p.h.	35 m.p.h.
4½ tons to 6½ tons	25 m.p.h.	35 m.p.h.
6½ tons to 10 tons	20 m.p.h.	30 m.p.h.
10 tons to 15 tons	20 m.p.h.	25 m.p.h.

(*ii*) *Goods-vehicles.*

Maximum Gross Weight.	Former Speed-limit.	Amended Speed-limit.
2 tons to 4½ tons	25 m.p.h.	30 m.p.h.
4½ tons to 6½ tons	20 m.p.h.	30 m.p.h.
6½ tons to 10 tons	15 m.p.h.	25 m.p.h.
10 tons to 15 tons	15 m.p.h.	20 m.p.h.

These maximum speeds relate only to heavy motor-vehicles which are sprung and equipped with pneumatic tires on all wheels. The speeds permitted solid rubber-tired and metal-tired vehicles and also unsprung vehicles remain unchanged.

(*b*) Limitation of Loads on Roads.

A further number of local authorities have now effected the classification of roads under their control, with the result that now there are 54 per cent. of all rural roads classified and 95 per cent. of the main-highway system throughout the rural areas.

The mileages are as follows:—

(*i*) *Classification of Rural Roads.*

——	Formed Roads.	Class II.	Class III.	Class IV.	Class V.	Total Classification.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
North Island	26,045	182	4,946	8,788	2,730	16,646
South Island	21,805	578	6,257	2,237	275	9,347
Totals	47,850	760	11,203	11,025	3,005	25,993

(*ii*) *Classification of Main Highways.*

——	Main Highways.	Class II.	Class III.	Class IV.	Class V.	Total Classification.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
North Island	6,467	98	2,908	3,154	95	6,255
South Island	5,217	450	4,250	138	32	4,870
Totals	11,684	548	7,158	3,292	127	11,125

Local authorities generally have adopted Class III as the maximum except where the roads are of a high type dustless surface or adjacent to large industrial centres. In many cases the main highways and any other important key roads have been classified in this class and the minor roads left unclassified, except where a light type of construction necessitates a lower weight-limitation than Class III provides. For all practical purposes the classification of the main routes traversing an area effectively limits the loading throughout the whole roading system of that area.

In addition to road classification which has been newly effected, there has been a review of the position in connection with certain vital links in the roading system where a classification in Class IV or Class V has obtained for a number of years. In some of these cases the roads were found to have been improved and strengthened to an extent warranting an increase in the allowable load-limits, and the classification was accordingly raised to Class III or to Class IV. Under the programme of reconstruction on State highways now being actively pursued by the Main Highways Board it

seems probable that a Class III standard of construction on the arterial routes throughout the Dominion is not far distant. The existing position at present is set out hereunder :—

(iii) Classification of State Highways (Rural Sections).

—	State Highways.	Class II.	Class III.	Class IV.	Class V.	Total Classification.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
North Island	2,112	27	1,115	950	..	2,092
South Island	1,629	89	1,485	..	..	1,574
Totals	3,741	116	2,600	950	..	3,666

It is notable that in areas where road surfaces are comparatively weak, such as North Auckland and the central portion of the North Island, the ruling classification is Class IV, whereas the South Island, and particularly southwards of Geraldine, a uniform Class III now prevails throughout practically the whole main-highways system.

It is considered that Class III generally provides an economic loading in rural areas, and this is particularly so in the case of multi-axled vehicles which are permitted a gross laden weight of 10 tons.

When roads are newly classified it is the usual practice to grant permits enabling vehicles which do not comply with the gross-weight limits to continue in operation for the balance of their useful life. In this way undue hardship, which would otherwise be incurred by the operators, is avoided. On replacement of these vehicles, however, it is most desirable that the new vehicle should comply with the load-restrictions, and in this way complete conformity to the classification would eventually be achieved. The indiscriminate issue of permits or slack enforcement of the classification tends to defeat this whole object, which is the preservation of the road surfaces from the damaging effect of unnecessarily heavy wheel-loads. Strict adherence to the classified limits is now being required, and unless an operator has a permit enabling him to carry excess loads, he is required to observe the prescribed limits as to gross weight.

8. MOTOR-VEHICLES AMENDMENT ACT, 1936.

Speed-limits in Built-up Areas.

The Act provides that there should be a uniform speed limit of 30 m.p.h. (i) in all boroughs and town districts except where the Minister excludes any particular streets or roads, and (ii) in any other area approved by the Minister as a closely populated locality for this purpose. It has been found in numerous cases of boroughs and town districts that the legal boundaries do not constitute the limits of population. In order that the speed-restriction may not be unnecessarily or unreasonably applied in such instances, inspections have been carried out with a view to recommending adjustments to the commencing-points of the speed-limits, where necessary, and in a number of instances the outlying sections of the more important roads entering the towns have been excluded from the provision as to speed. There is still a great deal of work to be done in this connection in various parts of the Dominion, and this is being carried out as expeditiously as possible. It is desired that the 30 m.p.h. limit should be scrupulously observed, and the first step towards ensuring this is obviously the application of the restriction only where its observance should be reasonably expected. Numerous requests have been made by rural local authorities for the application of a speed-restriction of 30 m.p.h. through various townships and settlements in their districts. In some instances these localities have been restricted accordingly, but in the case of a considerable proportion of the applications it has been deemed more effective to rely instead upon general safe driving requirements and to draw attention to any possible hazard due to local pedestrian or other traffic by the erection of suitably placed and appropriately worded cautionary signs.

9. TRAFFIC CENSUS.

Following the first comprehensive traffic census taken in 1934–35, arrangements have been made by the Main Highways Board for a similar census to be conducted during 1937–38. As previously, this census will be confined to the rural main-highway system, and will enable both the general increase in traffic volume to be ascertained, and also the trend of traffic in respect of particular routes.

As has already been shown by the first census, the results of these traffic surveys prove invaluable in the design of roads for future traffic requirements, the allocation of funds, and in connection with investigations regarding road safety.

Actually, however, the main-highway system, to which the census relates, constitutes less than quarter of the total mileage of formed roads in New Zealand, although they carry a great deal more than that proportion of the total vehicular traffic. No similar data is available concerning other rural roads nor the urban roads and streets.

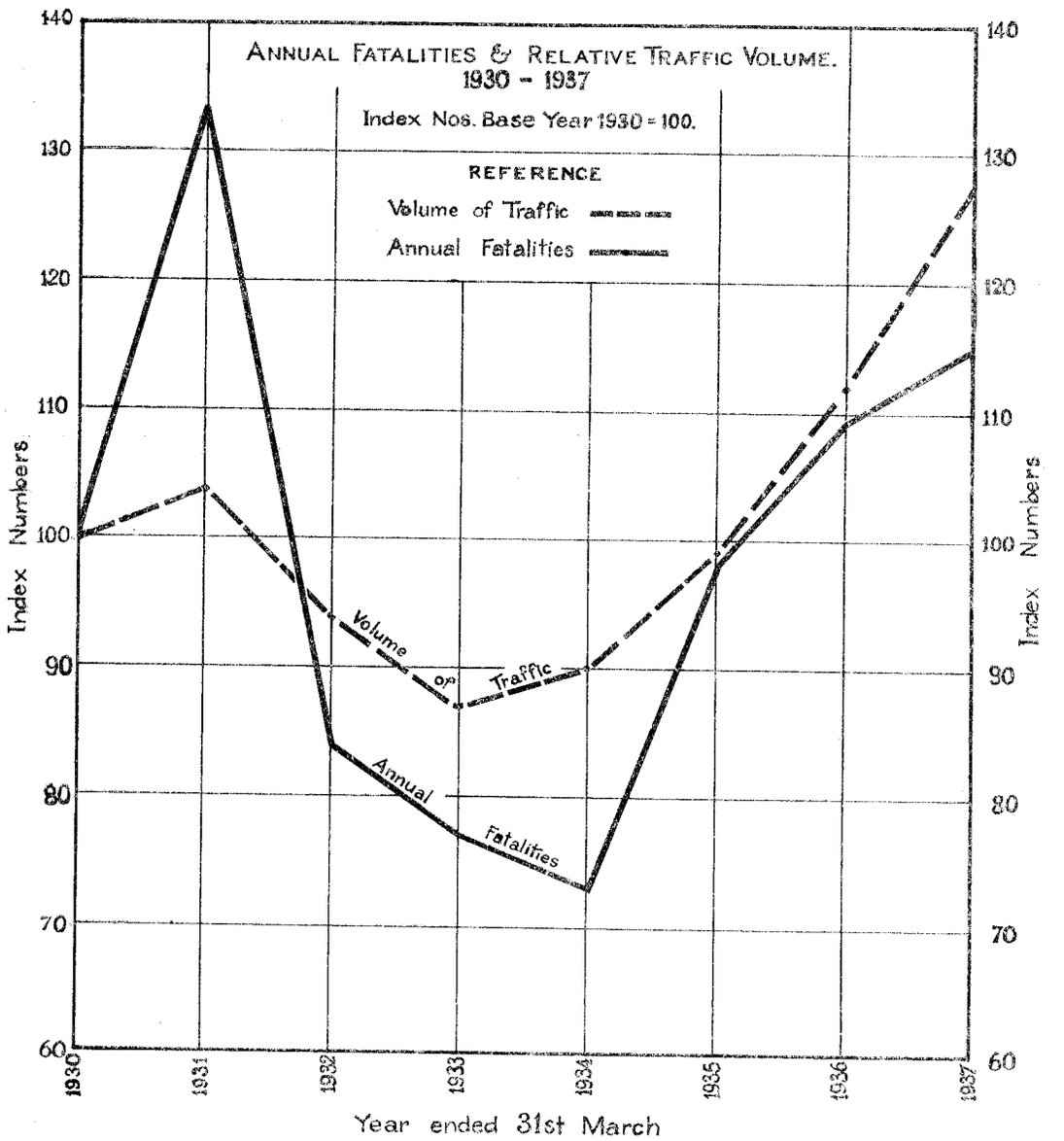
10. ROAD SAFETY.

During the past year road safety has been the most important feature of the Department's activities. Regulations have been passed controlling driving-hours in the road-transport industry both under the Transport Licensing Act and the Motor-vehicles Act, and safety measures have been incorporated in the Motor-vehicles Amendment Act, 1936. The Traffic Regulations have been revised and their scope widened, whilst a Council to act in an advisory capacity in all aspects of road safety has been set up.

In the following sections the various measures taken in the campaign are set out.

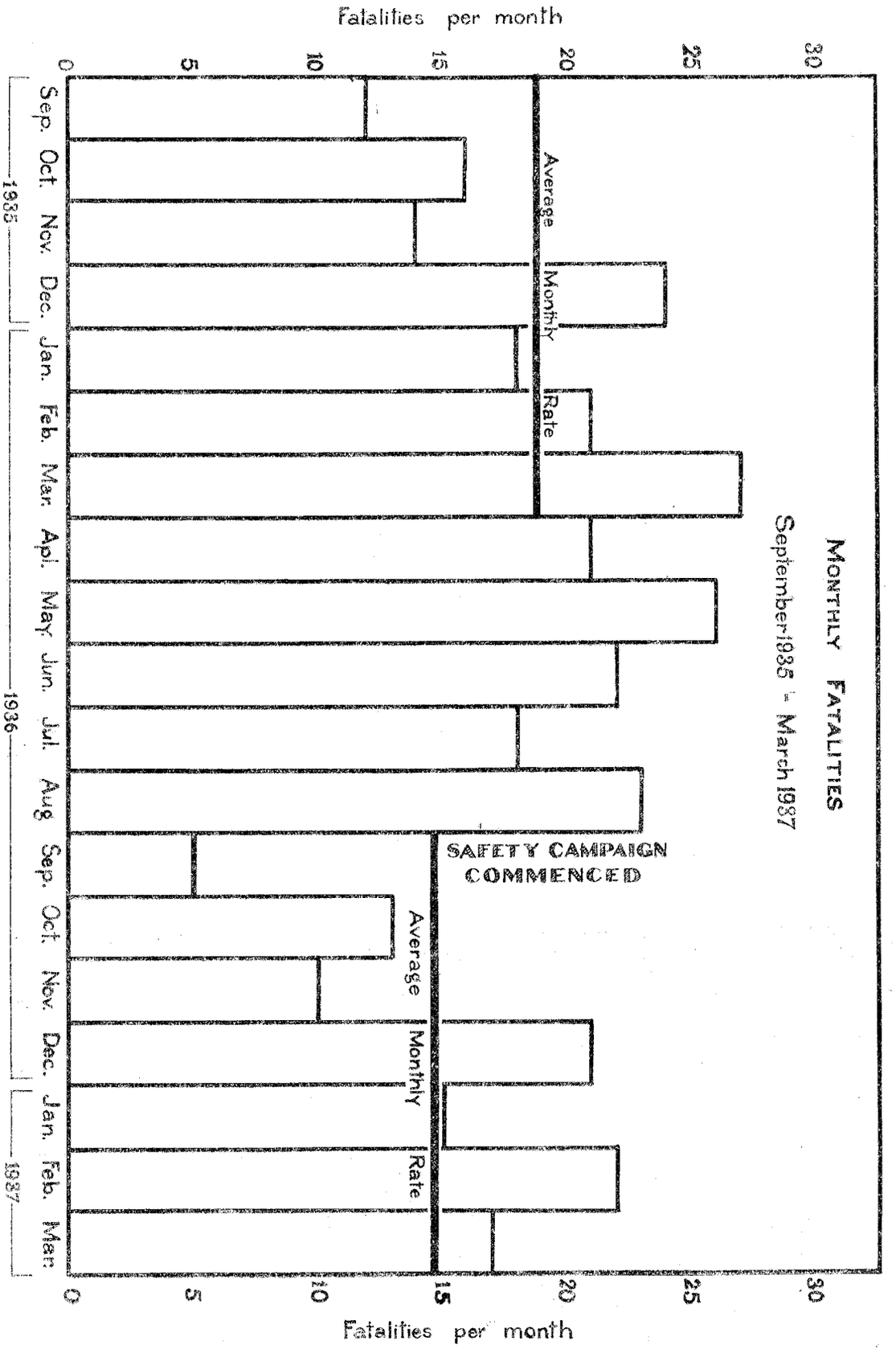
A.—ROAD-ACCIDENT STATISTICS.

Against the year ended 31st March, 1937, are recorded 213 deaths resulting from motor accidents. Statistics relating to these, compiled from the reports of Coroners' proceedings, are set out in Table No. 14 of the Appendix, and are compared in this table with the figures for the preceding years since 1930.



A comparison of the fatality rate year by year is perhaps more forcibly illustrated by the graph below. This graph compares the annual fatalities with the volume of motor traffic on the roads during this period of eight years. In each case the year ended 31st March, 1930, is taken as the base year. The estimated traffic volume is based upon petrol consumption figures.

In order to attempt to gauge the effect so far of the intensive road-safety campaign, which commenced in September, 1936, a further graph is presented showing the actual number of fatalities month by month from September, 1935, to March, 1937. On comparison of similar periods before and after September of last year it is seen that the average number of deaths per month has dropped from 18·9 to 14·7, a reduction of 22 per cent.


MONTHLY FATALITIES
September 1935 - March 1937
Fatalities per month
0
5
10
15
20
25
30
Sep.
Oct.
Nov.
Dec.
Jan.
Feb.
Mar.
Apl.
May
Jun.
Jul.
Aug
Sep.
Oct.
Nov.
Dec.
Jan.
Feb.
Mar.
1935
1936
1937
Average Monthly Rate
SAFETY CAMPAIGN COMMENCED
Average Monthly Rate
Fatalities per month

The main features which appear from a study of the statistics given in Table 14 are :—

(i) The total number of accidents show an increase of twelve over the previous year, this increase being made up largely of collisions between motor-vehicles. A slight decrease has occurred in respect of accidents involving pedestrians and bicyclists.

(ii) Over half the accidents occurred at night or during dusk, indicating that lack of adequate seeing ability is a vital factor, as during this period of the twenty-four hours there is only about one-fifth of the volume of traffic which is carried during daylight hours.

(iii) There were eleven railway-crossing smashes where some one was killed, the highest annual total yet recorded.

(iv) 59 per cent. of the fatal accidents occurred on country roads and 41 per cent. in the urban areas.

(v) Although the actual number of pedestrians killed has not increased, they still represent over one-quarter of the fatalities caused through motor-vehicle accidents.

(vi) Motor-cycles, although representing only 9½ per cent. of the vehicles on the road, constituted 19½ per cent. of the vehicles involved in fatal accidents.

(vii) The most common breaches of the law leading to fatal accidents were—

(*a*) Driver's intoxication, either mild or severe ;

(*b*) On incorrect side of road ;

(*c*) Failure to comply with the offside rule ;

(*d*) Excessive speed under the circumstances ;

(*e*) Various vehicular defects such as glaring or ineffective lights and faulty brakes.

(viii) Pedestrians were at fault in a considerable number of instances.

As a result of the recommendations made by the New Zealand Road Safety Council, arrangements were finalized towards the end of the year under review whereby far more comprehensive data is now obtained regarding road accidents. Formerly all particulars obtained have been in respect of fatal accidents only, but by arrangement with the Police Department a report is now received concerning each accident where there is injury to person. All such accidents are required by law to be reported by the motorist at the nearest police-station. A police officer investigates the circumstances and in the course of these duties prepares a report on a standard form designed for these statistical purposes. From these reports, covering at present some three hundred accidents each month, the Department compiles a number of very useful analyses which are being utilized as the prime basis for determining the preventive measures to be taken, and gauging the efficacy of these various measures.

While the statistics do not cover the whole field of motor accidents, they relate to a definite class of accident and may thus be used as a basis for comparison.

Some of the main immediate purposes to which these statistics are put are :—

(i) A basis for publicity, in conjunction with periodical statements regarding the toll of the road and the remedial measures being taken.

(ii) The main breaches of the law which commonly lead to accidents are revealed and the Government traffic staff and local traffic authorities are advised accordingly.

(iii) Accident spot maps are prepared showing localities where accidents are frequent.

(iv) Instances are investigated where it seems evident or possible that some faulty road condition contributed to the accident, and where considered necessary the condition is brought to the notice of the road-controlling authority.

B.—NEW ZEALAND ROAD SAFETY COUNCIL.

During August, 1936, the Government's concern at the rising toll of the road led the Minister of Transport to call a conference of all interested sections of the public.

The two major results of the conference were the endorsement of a proposal for traffic control to be taken over by the Government for all districts save in boroughs of over 6,000 population, and the recommendation that a Road Safety Council be set up to advise the Minister of Transport on matters relating to road-safety measures.

The conference suggested that the Minister of Transport select the personnel of the Road Safety Council. After consultation with the interested bodies, the Council was appointed by the Minister as follows :—

Hon. R. Semple, Minister of Transport (Chairman).
Mr. G. L. Laurenson, Commissioner of Transport (Deputy Chairman).
Dr. G. F. V. Anson, British Medical Association.
Mr. G. R. Ashbridge, New Zealand Educational Institute.
Mr. J. F. Cousins, New Zealand Motor Traders' Federation.
Mr. D. J. Cummings, Commissioner of Police.
Mr. J. S. Hawke, South Island Motor Union.
Mr. J. H. Jerram, State Fire and Accident Office.
Mr. M. F. Luckie, Municipalities.
Dr. J. W. McIlraith, Education Department.
Mr. W. A. O'Callaghan, North Island Motor Union.
Mr. F. C. Spratt, New Zealand Alliance.
Mr. C. J. Talbot, Counties Association.
Mr. J. Wood, Main Highways Board.

The Council early decided that the problems to be dealt with could be divided into different sections as follows:—

(i) Traffic laws including enforcement thereof.
(ii) Education and propaganda.
(iii) Vehicle-inspection.
(iv) Vehicle and highway lighting.
(v) Road conditions.
(vi) Alcohol and the driver.
(vii) Statistics of road accidents.

The first meeting of the Council, held on the 23rd September, 1936, was devoted principally to setting up sub-committees for the purpose of dealing with those of the above subjects requiring detailed attention.

At the next meeting, held on the 12th and 13th of November, 1936, the reports of the sub-committees were considered by the Council. These reports form a very valuable review of measures to be taken for road safety and are published in the Appendix to this report. The members expended much time and care in the formulating of these reports, and the public spirit shown is worthy of highest praise.

The reports were in general adopted by the Council and recommendations accordingly were made to the Minister. Concerning the report on publicity, it was agreed that the question of finance should be held over. This matter is referred to in the following section of this report.

At the third meeting, held on the 21st July, 1937, reports were received from the Department setting forth the action taken (as detailed in appropriate sections of this report) to further the recommendations of the Council and generally to increase safety on the roads.

Of the miscellaneous recommendations received from the Council, one was that advertising agencies be approached with a view to discouraging the use of yellow and black advertisements liable to be confused with the standard traffic signs. This recommendation was carried out and has resulted in a gratifying response from the agencies.

In addition to the value of the Council as an expert advisory body to the Minister of Transport on road-safety problems, its proceedings, which are featured by the press, form a very valuable means of bringing before the public from time to time the seriousness of the road-accident problem.

C.—PREVENTIVE MEASURES.

(i) Publicity and Education.

From November, 1936, when the Road Safety Council first met to consider the reports of its various committees, action has been taken in various ways to bring home to all users of the road the seriousness of the road-accident problem and the necessity for greater care by all. During the Christmas period and the early part of the present year picture-theatres co-operated in the campaign by displaying a road-safety slide. Addresses and pronouncements have been made over the air, and the press has devoted considerable space to the problem.

Each holder of a driver's license has been supplied with an indexed copy of the revised Traffic Regulations issued in December, 1936, and a copy of the Road Code; the latter includes a summary of the regulations. A copy of the Road Code has been sent to each of the 355,000 householders served by the Postal Department. Leaflets addressed to parents and containing a list of the principal rules for child pedestrians and child cyclists were distributed to all State and private schools in the early part of the present year, the leaflets being sufficient to provide one for each pupil.

Information for use by teachers in giving instruction in the schools has been published from time to time in the *Education Gazette*. Supplies of Road Codes have been sent to teachers' training colleges for study by students and for the preparation of lessons to children.

Reference is now made to proposed future activities. Following the report and recommendations of the sub-committee on adult education and propaganda, involving considerable expenditure, the Council decided to set up a sub-committee to consider the question of finance. It had been suggested, when the matter was before the Council, that, in addition to what the Government itself might provide, funds might be obtained from interested organizations. The sub-committee came to the conclusion, however, that it was undesirable to seek funds in that manner, but favoured an arrangement by which there would be effective co-operation between the automobile associations and the Government. Other members of the Council concurred generally with these conclusions, and consequently on 5th February last, the Hon. Minister of Transport wrote to the motor unions on the subject of co-operation in the carrying-out of the campaign.

Portion of this letter is quoted:—

> "The excellent work done by associations to date is recognized and appreciated, and I am sure they will all wish to take an active part, and in the most effective way possible, in an endeavour to promote road safety throughout the Dominion.
>
> "In view of the active part now being taken by the Government, and in view of the complexity and gravity of the problem, I feel that there should be close consultation and co-operation between the associations and the Government with the object of bringing about some form of co-ordinated effort. The aim of such effort should be, I suggest, to obviate overlapping of work and expenditure and to ensure that due attention is given to both the general treatment of the problem and to special phases of it, including the needs of individual areas and the extraordinary conditions prevailing at certain times of the year."

The proposal had not been finally considered by the associations comprising the unions by the 31st March, and the general question was further considered by the Road Safety Council at a later meeting, when a number of resolutions, summarized briefly hereunder, were passed:—

"All the main means of publicity should be availed of to an adequate extent and expert assistance should be utilized.

"There should be co-ordination of propaganda activities.

"There should be definition of responsibility as between the Government, local authorities, and automobile associations, and assistance given in the form of Government subsidy in respect of approved educational and propaganda measures of the automobile associations."

Action upon these recommendations has not been completed, but a number of proposals for Government publicity of an educational nature are being put into operation early in the coming summer. These include radio and press publicity, the display of posters, and notices for tram-cars and buses. Action in other directions is also contemplated to the extent permitted by the funds provided on the estimates for the current year. Approval has been given for the appointment of a publicity officer to the staff of the Department.

(ii) Traffic Control.

During the year under review several important changes in traffic supervision have been inaugurated and as far as possible the Government's policy of unified control has been put into operation.

Owing to the pressure of other important legislation last session, Parliament did not have an opportunity of considering legislation relating to traffic-control. However, with the assistance and co-operation of the Main Highways Board, it was found possible to institute a temporary arrangement to give immediate effect to the Government's policy.

The Board at that time employed fifteen full-time Traffic Inspectors throughout the Dominion and subsidized the salaries and expenses of a further thirteen Inspectors employed by groups of local authorities. Twelve of these group Inspectors were added to the Board's staff, and fourteen additional new appointments were made, bringing the personnel up to forty-one.

Owing to the introduction of the State highways, with a consequent increase in the scope of the Board's activities, the Board suggested early this year that it would facilitate matters if the Transport Department assumed full control of the traffic-enforcement machinery, and offered to arrange the necessary finance until other arrangements could be made. The Department therefore took over control as from the 1st April, 1937. Since that date the personnel has been increased to forty-eight, by the appointment of five new Inspectors and by taking over one more county Inspector.

(*a*) *Transport Licensing Act, 1931, and Amendments.*—Now that it has its own staff of Inspectors the Department has been able to arrange a much closer supervision of transport generally. A good deal of attention has been paid to the question of working-hours of transport drivers and operators are now observing the regulations in a reasonable manner. The suppression of unlicensed services and the efficient control of the licensed operators has effected an all-round improvement in transport matters generally.

(*b*) *Motor-vehicles Act, 1924, and Amendments.*—The introduction of the six-monthly check on the mechanical fitness of motor-vehicles, combined with the more efficient enforcement of the Act and regulations generally, has brought about a noticeable improvement in road safety. Much remains to be done in this direction before the position can be regarded as being satisfactory, but every endeavour is being made to reduce to a minimum accidents due to faulty vehicles and dangerous driving. The Department's Inspectors are co-operating with racing clubs, sports bodies, and local authorities throughout the Dominion, and the efficient control of traffic at large public functions has been the subject of much favourable comment both from the press and the public.

The adoption of a uniform speed-limit of thirty miles per hour in all built-up areas and the abolition of all unsatisfactory local restrictions has made the task of enforcement easier, and the majority of drivers of motor-vehicles are expressing their appreciation of these changes by a better compliance with the legislation.

(*c*) *Traffic Regulations.*—The Traffic Regulations empower Inspectors to control all classes of road-users, and special attention is being given to cyclists and pedestrians, particularly in the larger towns. It is essential that all road-users should recognize their joint responsibilities in reducing accidents, and a system which limits its control to one class only cannot fully succeed.

(*d*) *Probation Scheme for Traffic Offenders.*—During the year Mr. E. D. Mosley, S.M., Wellington, instituted the practice of placing persons convicted of certain traffic offences on probation; a condition of the probation being that they attend a series of lessons arranged by the proper traffic authorities. The instruction comprises road safety and courtesy, traffic regulations, and other matters likely to improve their standard of driving.

(*e*) *Traffic Offences.*—Although it has been the Department's policy to educate and assist road-users as far as possible without resorting to prosecutions, a large number of breaches of the various Acts and regulations relating to traffic-control are still being detected. Prosecutions are undertaken in all cases where the offences show a disregard for public safety or where deliberate evasions of the legislation are apparent.

The following table includes police and local-body prosecutions and shows the principal offences for which convictions were recorded during the last five years:—

Class of Offence.	Calendar Year.				
	1932.	1933.	1934.	1935.	1936.
Registration, &c., of vehicles	4,521	4,337	4,460	4,240	4,317
Lighting of vehicles	3,406	3,661	3,234	3,440	3,335
Negligent or dangerous driving	2,693	2,314	2,429	2,890	3,553
Excessive speed	2,052	1,428	1,269	1,352	1,697
Parking regulations	949	694	1,326	1,495	1,334
Drunk in charge of vehicles	326	302	265	335	492
Other	1,657	1,400	1,447	1,551	1,965
Totals	15,604	14,136	14,430	15,303	16,693

The sharp upward trend during the last two years in the figures for the more serious offences of dangerous and negligent driving, drunk in charge, and excessive speed are not reassuring.

(iii) Road Conditions.

Following the recommendations made by the committee set up by the Safety Council, all local authorities have been circularized drawing attention to the main-road hazards which should receive attention.

The question of faulty road conditions has been taken up also with the Main Highways Board, who have set aside an annual sum of £25,000 for special safety measures as distinct from ordinary maintenance.

Individual cases of possible hazards have also been brought to the notice of the appropriate authorities with a view to securing improved conditions of safety at particular localities.

In addition, certain action has been taken in the direction of securing a uniform style of signposting in order to apprise road-users of the nature of possible hazards ahead.

(iv) Improved Visibility at Night.

The sub-committee which the Safety Council set up in this connection dealt first with the question of vehicle-lighting, and later brought down recommendations regarding the lighting of the more important highways.

The main features of the report regarding vehicle-lighting were adopted and embodied in the Traffic Regulations, the major provisions being for a depressed headlight beam with the offside light permanently deflected to the left.

The recommendation of the Safety Council that a modern type of lighting be provided on all highways where the motor traffic reaches an average volume of 2,500 vehicles per day is considered essential for the promotion of safety of night, and an earnest endeavour is consequently being made to introduce suitable schemes in such instances.

(v) Inspection of Motor-vehicles.

Recent legislation now requires that all motor-vehicles must undergo periodical mechanical inspection. This work may be classified into three divisions, depending upon the nature of the certificate issued. All vehicles which carry passengers for hire or reward are required to carry a certificate of fitness. All goods-service vehicles must obtain a goods-service-inspection certificate. All other vehicles, with the exception of those licensed for hire by a competent authority, are required to carry a Warrant of Fitness.

(*a*) *Certificate of Fitness.*—All omnibuses, service-cars, contract vehicles, school buses, &c., are examined by Vehicle Inspectors attached to this Department, and all matters which might prejudice the safety, health, and comfort of the passengers receive careful consideration.

By Order in Council gazetted on the 10th December, 1936, the previous exemption of school buses from carrying a Certificate of Fitness was revoked, and all vehicles carrying children for hire or reward will now be subjected to the same periodical inspection by the Vehicle Inspectors as that given to all other passenger-service vehicles. Although the requirements for school vehicles are in general the same as those for other passenger-vehicles, it is those matters which are likely to prejudice the health and safety of the children that receive the principal consideration.

Tabulated below are the number of passenger-service vehicles in operation in each district as at the 1st March, 1937:—

District No.	Omnibuses.	Service Cars.	Service Coaches.	Passenger-trucks.	Total.
1	252	210	52	111	625
2	193	179	8	47	427
3	89	130	12	11	242
4	89	104	17	6	216
Totals ..	623	623	89	175	1,510

During the year seventy-two vehicles were condemned and ninety voluntarily withdrawn.

(*b*) *Goods-service-inspection Certificates.*—After 31st December, 1936, every goods-service vehicle shall carry an inspection certificate issued by a Vehicle Inspector. This entails a bi-annual examination of some five thousand vehicles, and it is the essential matters of safety that receive the principal consideration. The distribution of these vehicles between the four districts in New Zealand is as follows:—

District.	Number.
No. 1 (Auckland)	2,000
No. 2 (Wellington)	1,500
No. 3 (Canterbury)	900
No. 4 (Otago)	700

(*c*) *Warrants of Fitness.*—After the 31st March, 1937, all vehicles of this class are subjected to a bi-annual examination by a city authority, an officer of the Crown, or motor-garages approved for the purpose by the Minister of Transport. To date, however, the statistical returns indicate that the work at present is being executed mainly by the approved garages. At the present juncture over twelve hundred garages have been approved for this purpose and the issue of Warrants of Fitness has taken place smoothly during the past few months.

The inspection of a motor-vehicle for a Warrant of Fitness involves a check of brakes, lights, steering, wheel-alignment, wind-screen wiper, rear-vision mirror, warning-device, and door-fastenings. Every garage which issues warrants is required to furnish a monthly report showing the condition of the vehicles when first submitted for examination.

The statistical returns furnished by garages, &c., show that after the first month of inspection work 113,383 Warrants of Fitness had been issued. Of these vehicles, 83,328, or 80 per cent., required adjustments in some form or other in order to bring them up to the necessary standard of fitness.

The percentage of the defective features which were revealed by this examination are given in the following table:—

Items examined.	Percentage of Defects.
Brakes—	
Foot	28
Hand	26
Lights—	
Head	71
Tail	17
Wheel-alignment and steering	15
Wind-screen wiper	15
Rear mirror	4
Warning-device	3
Door-fastenings	3

From the above figures it will be noted that there was a relatively large proportion of headlights which required adjustment, but this was, no doubt, due to the change in the requirements of the regulation rather than actual defects in the lights themselves. The brakes are probably one of the most important items in the proper control of a vehicle, and, although the standard of brake-efficiency may be regarded as a very reasonable one, the figures shown above indicate that there was a high percentage of vehicles with inefficient brakes.

11. TRANSPORT LICENSING ACT, 1931.

A. PASSENGER SERVICES, 1936-37.

During the year under review the four Licensing Authorities considered applications for renewals of licenses which had expired, as well as a number relating to new services and also a large number of temporary licenses for services running to race meetings, shows, &c.

Most of the South Island passenger licenses expiring on the 31st August, 1935, were renewed for a three-year period and do not expire until the 31st August, 1938. The North Island licenses expired on the 29th February, 1936, and the large majority have been renewed for a similar period and will not expire until the 28th February, 1939.

(*a*) Continuous Passenger-service Licenses.

Table No. 8 of the Appendix indicates that of the 507 applications heard, 470 were granted, 9 were refused, 13 were withdrawn, and 15 were deferred. The corresponding figures for the previous year were 738, 669, 28, 28, and 13, respectively. The decrease in the number of applications heard was due to the circumstances outlined above.

(*b*) Seasonal Passenger-service Licenses.

Only 7 applications were received for seasonal licenses, all of which were granted, against the 28 applications considered during the previous year.

(*c*) Temporary Passenger-service Licenses.

The number of applications made for temporary licenses again shows a substantial increase, notwithstanding that arrangements were again made for operators running services on a more or less regular basis to race meetings, &c., to obtain continuous or seasonal licenses in lieu of numerous temporary licenses.

Table No. 8 shows that 4,745 applications for temporary licenses were made during 1936–37, of which 4,675 were granted, 69 were refused, and 1 withdrawn. The figures for the previous year were 3,200 applications, of which 3,128 were granted, 64 refused, and 8 withdrawn.

(*d*) Finances and Traffic Statistics.

Tables Nos. 9, 10, and 11 set out respectively the following statements, in so far as they are available, for the five years ended 31st March, 1937 :—

(1) Traffic and financial operating statistics.
(2) Average operating expenses and revenue per vehicle-mile.
(3) Assets and liabilities, and depreciation written off vehicles.

(i) *Traffic and Operating Statistics.*

Once again there has been an increase in the rate of profit for the services generally. The estimated loss for 1931–32 immediately prior to the Act coming into operation was about £40,000. During the five years the Transport Licensing Act has been in operation there has been a steady increase in the net return to operators, and for the year under review the returns show a net profit of £109,000, representing an advance of nearly 12 per cent. on the total profits for the previous year and equivalent to a return of 12 per cent. on the total capital invested.

In the following table, which shows the improved passenger loading per trip and profit per mile as compared with previous years, it will be noted that there has been an increase of nearly 10 per cent. in the operating expenses per mile which has been offset by an increase of 9 per cent. in the revenue per vehicle-mile.

——	1937.	1936.	1935.	1934.	1933.
Passengers per journey—					
North Island	13·5	10·9	9·4	8·9	9·2
South Island	10·2	8·9	8·3	8·2	7·9
New Zealand	12·9	10·5	9·2	8·8	8·9
Revenue per vehicle-mile—	d.	d.	d.	d.	d.
North Island	11·06	9·95	9·58	9·14	9·26
South Island	11·35	10·52	10·03	9·65	9·31
New Zealand	11·14	10·13	9·72	9·29	9·27
Operating-expenses per vehicle-mile—					
North Island	9·94	9·04	8·99	8·85	9·21
South Island	10·13	9·10	8·98	8·93	9·24
New Zealand	10·00	9·06	8·99	8·87	9·22
Profit per vehicle-mile—					
North Island	1·12	0·91	0·59	0·29	0·05
South Island	1·22	1·42	1·05	0·72	0·07
New Zealand	1·14	1·07	0·73	0·42	0·05

(ii) *Assets and Liabilities.*

Table No. 11 of the Appendix sets out the assets and liabilities of the industry, as far as they are available, for the five years ended 31st March, 1937. The figures under review show a substantial increase on those for the previous year. The increase may be discounted to a large degree owing to the difficulty in eliminating assets extraneous to the business of transport from year to year on a uniform basis. The general indication given by a perusal of the returns is, however, that the capital investment has increased. The value of passenger vehicles has increased due to the replacement of old vehicles by new, approximately ninety new vehicles being put on the road during the year. The item "Other assets" shows an increase of £80,000, largely due to the inclusion of goodwill in the

figures taken. The following table sets out the relative proportions of capital plus reserves and "Outside" liabilities to the total assets employed :—

——	1937.	1936.	1935.	1934.	1933.
	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Capital and reserves—					
North Island	71·4	65·6	67·6	67·2	68·5
South Island	71·9	64·0	66·5	73·3	65·6
New Zealand	71·6	65·0	67·2	69·3	67·6
"Outside" liabilities—					
North Island	28·6	34·4	32·4	32·8	31·5
South Island	28·1	36·0	33·5	26·7	34·4
New Zealand	28·4	35·0	32·8	30·7	32·4

(iii) *Fare Schedules.*

The licensing law requires the Licensing Authorities to consider, *inter alia*, the fares charged by operators. The fares are reviewed each year, and it is open to interested parties to make representations in this connection. During the year qualified officers of the Department examined the accounts and records of licensees to ensure that their requirements as to keeping proper accounts and records were being complied with. By this means the authorities are able to ensure that an equitable portion of the benefits of the licensing system are passed on to the users of the services in the form of reduced fares.

B. GOODS SERVICES, 1936–37.

Tables Nos. 12 and 13 of the Appendix set out the principal statistics of the licensed goods services. Under the 1936 Amendment Act the exemption that applied to cream-carriers was removed. The exemptions applying to carriers operating on rural roads and within five miles of borough boundaries were modified, and the exemption now applies only to those carriers operating within an area lying within a six-mile radius from the chief post-office of the following cities and boroughs :—

Whangarei.	Hastings.	Nelson.
Hamilton.	New Plymouth.	Greymouth.
Rotorua.	Wanganui.	Timaru.
Gisborne.	Palmerston North.	Oamaru.
Napier.	Masterton.	Invercargill.

The special exempted areas around the four main centres still stand.

(*a*) APPLICATIONS DEALT WITH.

Table No. 12 sets out the numbers of applications dealt with, but owing to the appointment of new Licensing Authorities and the widening of the areas controlled by each authority quite a large number of applications were not dealt with until after the end of March, and the table, therefore, gives no guide as to the actual number of services operating.

The following table summarizes the figures during the past four years :—

——	Applications dealt with.	Granted.	Refused.	Withdrawn.	Deferred.
Continuous—					
1933–34	2,146	1,898	118	43	87
1934–35	2,146	2,016	91	25	14
1935–36	2,080	1,999	56	14	11
1936–37	2,139	1,750	79	47	149
Seasonal—					
1933–34	99	88	3	8	..
1934–35	108	89	9	7	3
1935–36	104	93	4	6	1
1936–37	52	25	1	16	3
Temporary—					
1933–34	3,800	3,793	7	..	..
1934–35	7,399	7,390	9	..	..
1935–36	8,489	8,458	31	..	..
1936–37	11,181	11,141	40	..	..

The temporary-license figures again show a substantial increase as compared with the previous year.

(*b*) Finances and Statistics.

The figures in Table No. 13, which set out the principal operating statistics for the goods-transport industry, have been estimated on the basis of the proportion of vehicle authorities for which reasonably reliable financial and statistical returns were received. The figures shown, though not strictly comparable, afford a reasonably accurate statement of the position.

The chief features shown by the table are—

(i) A substantial increase in the profits earned by the industry from £176,000 for 1933–34 to £371,000 for 1936–37. Viewing these figures on a profit-per-vehicle-mile basis the net return per mile has increased from 1·14d. to 1·57d.

(ii) An increase in operating expenditure by 11·6 per cent., from 8·76d. per mile to 9·78d. These figures do not reflect the full effects of the transport legislation covering driving-hours and the observance of award rates of pay, as these measures did not come into force until October, 1936.

(iii) Revenue has increased by 13 per cent., from 10·04d. per mile to 11·35d.

(*c*) Assets and Liabilities.

The balance-sheet of the industry for the Dominion shows a healthy position. Of the total assets employed (£2,532,000), £1,771,000, or 70 per cent., represents operators' capital and £761,000 other liabilities. There has been an increase in the total value of assets employed in each business, the average figure increasing from £960 to £1,199.

(*d*) Co-ordination.

Investigations carried out during the year showed that there is room for a considerable measure of co-ordination between the long-distance road-and-rail freight services. Owing, however, to the difficulties of securing co-ordination while the road services are operated in small units, a policy of single ownership whereby certain road services would be taken over by the State and operated by the Railways Department was adopted.

To bring this policy into effect two purchase officers, with an investigating accountant and three officers experienced in the operation of motor-vehicles to assist them, have been appointed to negotiate with the road operators for the taking over of their services. These officers will report the results of their negotiations to a special tribunal appointed under section 11 of the Transport Licensing Amendment Act, 1936.

In cases where agreement has been reached between the purchasing officers and the operators the tribunal will consider their report and submit its recommendations to Cabinet through the Minister of Transport. In cases where agreement is not reached the tribunal will hear both parties at public sittings and report its findings to the Minister.

Negotiations are at present in train with fifty-four operators—nine in the No. 1 District, twenty-nine in the No. 2, seven in the No. 3, and nine in the No. 4 District. Nearly all these carriers are operating over routes in excess of fifty miles in direct competition with the railways and hold between them 197 vehicle authorities.

C. APPEALS.

The present Licensing Authorities took office on the 21st July, 1936. At that time there were on hand twenty undetermined appeals against decisions given by former Licensing Authorities. These have been disposed of, and in respect of appeals lodged up to and including 31st March, 1937, against decisions of the present authorities, the following details are given :—

(*a*) Goods Services.

District.	Number of Appeals.	Licensing Authority's Decision upheld.	Decision modified.	Decision reversed.	Under Action.
No. 1	8	1	4	1	2
No. 2	6	4	2	..	..
No. 3	11	2	3	..	6
No. 4	19	2	2	..	15
Totals	44	9	11	1	23

(*b*) Passenger Services.

Two appeals were lodged in respect of a service in the No. 1 Transport Licensing District, the authority's decision being upheld.

12. COMMERCIAL AIR TRANSPORT.

Since April, 1936, when the Minister of Transport became the Licensing Authority for commercial air services, there have been granted one commercial aircraft route license, one air taxi license, and one temporary license. The licenses in force at the 31st March, 1937, were—

Five commercial route licenses.
Eight air taxi licenses.
Eleven aero club licenses.

The five commercial services operate over the following routes :—

East Coast Airways : Gisborne–Napier–Hastings.

Air Travel (N.Z.), Ltd. : Inchbonnie–Hokitika or Greymouth to Franz Joseph and Fox Glaciers and Haast–Okuru.

Cook Strait Airways, Ltd. : Wellington–Blenheim–Nelson, with the right to run to Hokitika as required.

Union Airways of New Zealand, Ltd. : Palmerston North – Blenheim–Christchurch–Dunedin and Auckland – New Plymouth – Palmerston North – Wellington.

The statistics for the year ended 31st December, 1936, shown hereunder, cover the first four services mentioned, the last service, Auckland–Wellington, not commencing until the new year :—

Number of licensees operating regular services	4
Number of machines in use	10
Number of miles flown	897,106
Number of passengers carried	25,672
Weight of goods and excess baggage carried (lb.)	49,397
Weight of mails carried (lb.)	99,713

13. CHANGES IN TRANSPORT LAW IN NEW ZEALAND.

The past year has been one of great activity so far as changes in the transport law are concerned. Amendments have been made to the Motor-vehicles Act, 1924, the Transport Licensing Act, 1931, and the Transport Licensing (Commercial Aircraft Services) Act, 1934. In addition, the numerous Orders in Council issued under the Transport Licensing Act have been consolidated into three enactments, and various miscellaneous Orders in Council and Warrants have been issued.

These activities have resulted chiefly from the implementing of the Government's road safety campaign, and also include provisions for change in the system for controlling commercial road transport.

A summary of the various major provisions is as follows :—

(*a*) Road Traffic.

(i) *Motor-vehicles Amendment Act, 1936.*

(*a*) *Uniformity in Laws.*—A fixed speed-limit of 30 m.p.h. for town areas, the new offence of careless or inconsiderate driving, and provision for disallowance of local by-laws have enabled the traffic laws to be simplified and made more uniform.

(*b*) "*Hit-and-run*" *Driver.*—The maximum penalty for this offence has been increased from £20 to £500 or five years' imprisonment.

(ii) *Traffic Regulations and Road Code.*

These regulations, and the Road Code supplementary thereto, replace the former Motor-vehicle Regulations and provide for rules to control and guide the activities of all classes of road users, including cyclists and pedestrians. These regulations were submitted to the local authorities, the New Zealand Road Safety Council, and other interested bodies before being issued, and many useful suggestions were made, and as a result were incorporated in the provisions.

The regulations have now had a fair trial, and although certain provisions, particularly those relating to cycles and pedestrians, have not yet been fully enforced, it is considered that the regulations are resulting in the better control of road traffic. Steps were taken so that, with the co-operation of local authorities, copies of the regulations and code were issued to all motor-drivers when they applied for a license at the last relicensing period.

(*b*) Commercial Road and Air Transport.

(i) *Transport Licensing Amendment Act, 1936.*

The main provisions have the following effect :—

(*a*) Reduction of the number of Licensing Authorities from ten to four, and reduction of personnel of each authority from three men to one man.

(*b*) Abolition of Transport Co-ordination Board as from 1st April, 1936, and vesting of its powers in the Minister of Transport. This means that the Minister becomes appeal authority for road services and licensing authority for air services.

(*c*) Simplification of licensing procedure by providing that in the case of applications for renewals, amendments, and transfer of licenses when no objections are received as a result of advertisement, the Licensing Authorities be empowered to deal with the application without the applicant being present.

(*d*) Provisions for review of licenses by Licensing Authority when complaint is made of "cut-throat" competition, or when other circumstances warrant such review.

(ii) *Provisions of Regulations.*

The regulations under the Act were reissued and fresh provisions made for the following purposes :—

(*a*) Abolition of the "five-mile" main-highway exemption, and of the exemption for milk and cream lorries in the licensing of goods services.

(*b*) Application of standard maximum periods of driving-hours to all passenger and goods vehicles licensed under the Transport Act.

(*c*) Provision for securing the payment of award wages to all drivers employed by licensed services, and control of earnings of "owner-drivers."
(*d*) Protection of the Government Railways by providing that when goods are to be transported and there is a convenient route by which it is possible to carry them over at least thirty miles of railway, then that route is to be used inclusive of the railway.
(*e*) Provision that all goods services licensed under the Transport Act shall carry all goods reasonably offering without discrimination.
(*f*) Regular inspection to ensure fitness of public goods-vehicles as well as passenger-vehicles.

(iii) *Air Services.*

The amendments to the Transport Licensing (Commercial Aircraft Services) Act are principally consequential on the abolition of the Transport Co-ordination Board, and the amendments provide that the Minister of Transport is to be the Licensing Authority for aircraft services instead of the Board.

(*c*) Proposals in Hand.

(i) *Taxi and Town Carrier (using Motor-vehicles) Services.*

As a result of widespread representations received from all over the Dominion, the Hon. the Minister of Transport, in accordance with the provisions of section 11 of the Transport Law Amendment Act, 1936, appointed a special committee of inquiry, consisting of Messrs. P. M. Butler (Chairman), James Walker, and H. B. Smith to investigate and report on the whole question of the licensing, control, &c., of the taxi and town carrying businesses.

The committee recommended that these services should be brought under the provisions of the Transport Licensing Act, and amending legislation giving effect to this is being prepared for consideration by Parliament.

(ii) *Traffic-control.*

The whole question of the machinery for the control of road traffic in the Dominion has been fully investigated, and legislative proposals aimed at increasing the efficiency of the present system are being prepared for submission to Parliament. The principal points covered in the new proposals are:—

(*a*) Boroughs of 6,000 population and over will control the traffic in their own areas, while the smaller boroughs and rural areas will come under a national system.
(*b*) Motor-drivers' licenses will be issued through post-offices, and the revenue from the fees divided between the larger boroughs and the Consolidated Fund.
(*c*) Power whereby local bodies in and around the main centres whose separate areas may, for traffic purposes, be regarded as being one large single area, may be declared Traffic Districts, with the control of traffic in the hands of one local authority.

The above proposals have been circulated to local authorities and other interested persons and bodies in order that their views may be available to the Government before the legislation is proceeded with.

14. OVERSEAS TRANSPORT LEGISLATION.

Great Britain.

The Trunk Roads Act, 1936, makes the Minister of Transport the controlling authority for approximately 4,500 miles of British main highways (being 17 per cent. of all roads). The purpose of the Act is stated as being to secure a proper standard of design and greater uniformity in widths, surfaces, and lay-outs of these trunk roads.

An amendment this year to the Road Traffic Act permits hire of a taxi on a share-the-fare basis, and also provides for variation in the periods of carriers' licenses.

Canada.

The Department of Transport Act, 1936, amalgamates with that Department the activities previously controlled by the Departments for Marine and Fisheries, Civil Aviation, and Railways and Canals.

South Australia.

The Road Traffic Amendment Act, 1936, provides for a half-yearly system for registration of motor-vehicles, and the provision of third-party insurance. It also makes various important laws for the purpose of aiding road safety. An interesting provision is that the speed of a solo motor-cycle having a pillion-rider is limited to 25 m.p.h.

United States of America.

Federal control of motor-vehicle inter-State traffic became fully operative during the year under the Motor Carriers' Act, which brings inter-State carriers under the control of the Inter-State Commerce Commission.

14. 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, 1936.

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	5,782	37	1	90	55	13	154	972	838	149	69	71	945	3	9,179
Auckland South ..	2	38,753	348	188	442	96	207	153	6,114	4,422	796	345	393	5,438	38	57,733
Tauranga	3	4,538	54	21	61	53	14	65	929	613	118	65	104	551	4	7,190
Gisborne	4	3,384	27	1	49	28	16	23	384	396	90	44	48	447	2	4,939
Hawke's Bay ..	5	9,763	104	7	70	42	41	99	1,845	1,101	241	136	72	964	9	14,494
King-country ..	6	2,107	12	..	22	10	3	32	360	349	51	15	52	333	1	3,347
Taranaki	7	8,684	104	24	44	25	8	51	1,382	1,053	95	103	48	1,279	14	12,914
Wanganui	8	6,557	56	16	51	30	5	39	1,031	741	135	75	37	845	7	9,625
Wellington West ..	9	21,594	273	61	256	30	121	64	2,707	2,258	510	184	561	2,687	12	31,318
Wellington East ..	10	5,103	45	12	21	33	8	30	926	528	168	92	7	434	2	7,409
Totals, North Island ..	..	106,265	1,060	331	1,106	402	436	710	16,650	12,299	2,353	1,128	1,393	13,923	92	158,148
South Island.																
Nelson	11	5,186	44	22	48	66	12	32	1,022	590	136	57	55	851	7	8,128
West Coast	12	2,467	17	30	42	28	9	41	418	475	65	52	61	459	..	4,164
Canterbury North ..	13	1,086	3	9	7	17	..	16	182	146	50	26	6	164	1	1,713
Canterbury Central ..	14	19,888	188	64	160	32	52	65	2,536	1,850	907	282	203	3,338	21	29,586
Canterbury South ..	15	6,181	39	10	35	24	21	27	1,067	469	370	109	30	789	2	9,173
Otago Central ..	16	3,905	25	20	35	36	11	23	618	358	130	52	28	489	1	5,731
Otago South ..	17	9,086	88	32	158	44	36	68	1,225	1,005	326	70	86	1,431	9	13,664
Southland	18	7,772	79	36	70	24	27	46	1,340	904	243	89	69	903	6	11,608
Totals, South Island ..	..	55,571	483	223	555	271	168	318	8,408	5,797	2,227	737	538	8,424	47	83,767
Grand totals ..	..	161,836	1,543	554	1,661	673	604	1,028	25,058	18,096	4,580	1,865	1,931	22,347	139	241,915

TABLE No. 2.—MOTOR-VEHICLES LICENSED AS AT 31ST MARCH, 1937.

TABLE SHOWING BY POSTAL DISTRICTS THE NUMBER OF MOTOR-VEHICLES LICENSED UNDER THE MOTOR-VEHICLES ACT, 1924, AS AT THE 31ST MARCH, 1937.

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	32,498	158	4,662	3,827	230	189	440	115	728	278	262	334	33	5,074	48,828
Thames	6,269	1	1,217	720	60	10	56	34	152	70	97	43	4	776	9,509
Hamilton	14,553	52	2,626	1,980	130	45	130	76	423	119	136	266	9	2,003	22,548
Gisborne	4,169	1	540	475	45	17	56	28	118	36	51	52	2	568	6,158
Napier	8,542	10	1,647	987	100	39	64	39	253	97	123	70	8	845	12,824
New Plymouth	9,201	24	1,459	1,093	52	8	44	26	120	106	106	49	14	1,375	13,677
Wanganui	6,548	15	1,073	747	45	5	48	28	158	56	76	43	7	882	9,731
Palmerston North	10,671	16	1,610	955	47	26	60	18	318	85	108	90	10	1,119	15,133
Wellington	19,418	69	2,552	2,143	81	106	235	55	537	256	197	503	9	2,440	28,601
Totals, North Island ..	111,869	346	17,386	12,927	790	445	1,133	419	2,807	1,103	1,156	1,450	96	15,082	167,009
South Island.															
Nelson	1,834	4	427	185	11	1	19	11	89	16	31	9	4	334	2,975
Blenheim	3,493	18	675	456	21	10	34	57	71	26	27	48	3	569	5,508
Westport	642	1	136	129	17	..	9	11	23	5	15	21	..	121	1,130
Greymouth	1,977	28	302	369	34	12	33	18	50	13	37	41	..	387	3,301
Christchurch	22,746	72	3,034	2,292	90	53	171	53	1,227	193	498	232	23	3,861	34,545
Timaru	5,634	9	992	470	28	21	33	24	341	39	99	30	2	785	8,507
Oamaru	2,233	10	334	221	9	9	14	15	119	18	27	12	2	263	3,286
Dunedin	11,092	45	1,565	1,219	83	38	177	53	417	95	95	105	9	1,791	16,784
Invercargill	8,484	37	1,438	992	51	30	74	42	300	77	92	71	7	1,008	12,703
Totals, South Island ..	58,135	224	8,903	6,333	344	174	564	284	2,637	482	921	569	50	9,119	88,739
Grand totals ..	170,004	570	26,289	19,260	1134	619	1,697	703	5,444	1,585	2,077	2,019	146	24,201	255,748

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

COMPARATIVE TABLE SHOWING NUMBER OF MOTOR-VEHICLES LICENSED AS AT 31ST DECEMBER, 1925 TO 1936, 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.	Road-rollers.	Fire-engines.	Ambulances.	Rental and Private-hire 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	65	..	..	146	145,568
1927 ..	105,464	14,501	5,693	27,792	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	..	..	..	..	..	..	..	1,133	..	..	..	..	..	470	195,315
1931 ..	135,909	19,249	9,832	25,774	1,062	721	..	..	..	..	..	..	..	1,576	..	..	..	..	..	417	192,964
1932 ..	123,637	20,217	13,697	23,500	..	..	528	1,568	1,123	1,005	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	*710	1,084	1,233	1,485	126	2,911	..	..	..	261	656	..	197,486
1935 ..	143,488	22,681	16,138	22,935	..	..	559	1,672	*692	1,293	1,546	1,595	137	3,500	..	..	..	372	840	..	213,948
1936 ..	161,836	25,058	18,096	22,347	..	..	604	1,661	*673	1,543	1,865	1,931	139	4,580	..	..	..	554	1,028	..	237,335

* 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 BOROUGHS 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, 1937. Amount of Tax, Quarter ended												Total since Inception of Petrol-tax up to 31st March, 1937.		
	June 30th.			September 30th.			December 31st.			March 31st.			Total.			
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£ s. d.
Wellington City ..	5,540	17	0	5,563	10	10	6,849	11	1	6,726	16	7	24,680	15	6	151,416 1 11
Auckland City ..	4,887	13	1	4,907	13	5	6,042	1	7	5,947	4	0	21,784	12	1	142,299 18 9
Christchurch City	4,414	0	0	4,432	1	6	5,456	11	0	5,359	13	3	19,662	5	9	122,679 16 9
Dunedin City ..	3,098	16	10	3,111	10	8	3,830	15	4	3,761	19	7	13,803	2	5	92,147 1 11
Wanganui City ..	1,109	17	1	1,114	8	0	1,371	19	11	1,347	10	4	4,943	15	4	33,374 8 11
Palmerston Nth. City	1,063	4	5	1,067	11	6	1,314	6	11	1,290	15	5	4,735	18	3	28,758 3 0
Invercargill City ..	1,029	11	3	1,033	15	7	1,272	14	9	1,250	3	11	4,586	5	6	28,078 7 3
Mount Albert ..	943	11	6	947	8	10	1,166	8	10	1,146	10	8	4,203	19	10	27,730 6 11
Mount Eden ..	885	8	1	889	0	7	1,094	10	7	1,076	8	5	3,945	7	8	26,816 19 7
Timaru	832	18	7	836	6	10	1,029	13	3	1,011	8	5	3,710	7	1	23,089 0 3
New Plymouth ..	797	6	2	800	11	6	985	12	6	968	2	4	3,551	13	6	21,797 18 1
Hamilton ..	773	6	6	776	9	10	955	19	6	977	7	1	3,483	2	11	21,082 11 6
Lower Hutt ..	764	2	7	767	5	2	944	12	3	927	17	7	3,403	17	7	18,982 3 5
Napier	732	12	6	735	12	6	905	13	4	889	12	6	3,263	10	10	21,812 3 5
Gisborne ..	650	10	4	653	3	7	804	3	3	789	18	4	2,897	15	6	19,128 5 11
Hastings ..	610	8	10	612	18	10	754	12	6	741	5	1	2,719	5	3	16,147 17 8
Nelson City ..	536	18	0	539	2	0	663	14	3	651	19	2	2,391	13	5	14,838 18 7
Onehunga ..	530	14	6	532	18	0	656	1	7	644	5	8	2,363	19	9	15,160 17 7
Petone	523	13	9	525	16	8	647	7	7	635	12	5	2,332	10	5	14,832 17 0
Devonport ..	467	15	4	469	13	8	578	5	0	568	1	3	2,083	15	3	13,930 14 10
Masterton ..	435	9	0	437	4	8	538	5	11	528	16	5	1,939	16	0	11,840 8 6
One Tree Hill ..	383	14	10	385	6	3	474	7	6	466	13	5	1,710	2	0	9,055 9 11
Greymouth ..	388	10	7	390	2	5	480	5	11	471	15	9	1,730	14	8	8,491 6 0
St. Kilda ..	371	3	0	372	13	4	458	16	3	450	12	6	1,653	5	1	11,086 6 11
Oamaru ..	358	9	3	359	18	7	443	2	6	435	5	7	1,596	15	11	10,257 13 9
Whangarei ..	342	8	5	343	16	6	423	6	0	415	16	0	1,525	6	11	10,181 11 3
Takapuna ..	348	1	5	349	9	11	430	5	8	422	13	3	1,550	10	3	9,541 14 8
Rotorua ..	312	13	10	313	19	5	386	10	11	379	14	0	1,392	18	2	1,392 18 2
Totals ..	33,133	16	8	33,269	10	7	40,959	15	8	40,283	19	11	147,647	2	10	925,952 2 5

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 1936.

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.
	Bituminous or Cement Concrete.	Bitumen or Tar.	Metal or Gravel.	Other and Unspecified Material.					
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
1922 ..			26,787¾*		17,456¼	44,244	5,095½	13,631½	62,971
1923 ..			27,815½*		17,791½	45,607	5,377½	13,613	64,597½
1924 ..			28,553¼*		17,222¾	45,776	5,218¼	13,630½	64,624¾
1925 ..	58¾	639	28,243¾	458¼	16,748	46,147¾	5,181½	15,676¾	67,006
1926 ..	97¾	836	28,981½	340¼	16,521¾	46,777¼	5,009¾	15,792½	67,579½
1927 ..	133	1,012	29,726½	373½	16,107¼	47,352¼	5,093	15,795	68,240¼
1928 ..	217	1,262½	30,669¾	129¼	15,381¼	47,659¾	5,040½	15,669¼	68,369½
1929 ..	254	1,472	31,334	125¾	15,135¼	48,321	5,399¾	15,197½	68,918¼
1930 ..	306	1,724¾	32,352½	83	14,600¼	49,066½	5,375	16,506¼	70,947¾
1931 ..	339⅓	1,892¾	32,855½	116	14,374½	49,578¼	5,642¼	16,923½	72,144
1932 ..	336¾	2,118½	33,536½	88½	14,195¾	50,276	5,808	16,418	72,502
1933 ..	344	2,320	34,848	80½	13,300½	50,893	5,876¼	17,474	74,243¼
1934 ..	368	2,544½	35,952¼	79½	12,698½	51,642¾	5,878¾	17,708¾	75,230¼
1935 ..	379¼	2,819	36,721¼	78½	12,160½	52,158½	5,871	16,999	75,028½
1936 ..	395	3,246¼	36,056	75½	12,285¾	52,058½	5,812	16,982½	74,853

* 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 1936, 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 ..	*	*	*	*	*	*	*	*	*	*	*	*	2,955†	328,766†
1924 ..	*	*	*	*	*	*	*	*	*	*	*	*	3,297†	362,034†
1925 ..	408	36,840	..	..	205	28,916	..	..	1,466	180,529	2,035	167,557	4,114	413,842
1926 ..	431	39,127	..	..	258	34,883	..	..	1,665	197,735	2,029	161,084	4,383	432,829
1927 ..	489	42,804	..	..	349	40,185	..	..	1,850	217,600	1,959	148,427	4,647	449,016
1928 ..	545	47,833	..	..	282	37,623	..	..	2,013	229,208	1,994	153,078	4,834	467,742
1929 ..	608	52,761	..	..	324	38,679	..	..	2,137	242,474	2,181	165,525	5,250	499,439
1930 ..	671	57,739	..	..	270	37,777	..	..	2,285	245,867	2,164	168,120	5,390	509,503
1931 ..	751	66,292	..	..	295	38,995	..	..	2,396	253,057	2,164	164,940	5,606	523,284
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	164,999	5,988	534,533
1934 ..	590	48,957	380	39,662	235	29,387	354	30,834	2,191	227,035	2,365	167,129	6,115	543,004
1935 ..	623	52,146	429	42,865	269	31,864	499	40,776	1,932	210,176	2,475	172,783	6,227	550,610
1936 ..	669	57,862	456	46,132	303	34,593	457	40,638	2,077	215,742	2,381	167,404	6,343	562,371

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

TABLE No. 7.—TAXATION OF MOTOR-VEHICLES, 1926–1937.

TABLE SHOWING THE ANNUAL YIELD FOR THE YEARS ENDED 31ST MARCH, 1926 TO 1937, 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	..	1,786,123
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 ..	253,769	103,873	1,659,948	370,126	179,105	58,860	..	2,625,681
1933 ..	134,659	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	268,000‡	72,000‡	4,159	5,348,019
Totals for 12 years to 31st March, 1937	8,911,826	1,812,282	18,040,664	4,243,871	2,294,760	665,172	9,198	35,977,773

* 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.—TRANSPORT LICENSING ACT, 1931.

TABLE SHOWING DETAILS REGARDING APPLICATIONS FOR PASSENGER-SERVICE LICENSES DURING YEAR ENDED 31ST MARCH, 1937.

Licensing Authority.	Number of Applications dealt with.				Number of Decisions given.								Number of Applications withdrawn.				Number of Decisions deferred.			
					Granted.				Refused.											
	Continuous.	Seasonal.	Temporary.	Total.	Continuous.	Seasonal.	Temporary.	Total.	Continuous.	Seasonal.	Temporary.	Total.	Continuous.	Seasonal.	Temporary.	Total.	Continuous.	Seasonal.	Temporary.	Total.
Auckland Metropolitan Licensing Authority	7	..	1,678	1,685	7	..	1,660	1,667	..	..	17	17	..	..	1	1	..	..	..	..
Wellington Metropolitan Licensing Authority	2	..	..	2	2	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..
Christchurch Metropolitan Licensing Authority	7	1	4	12	7	1	4	12	..	..	..	..	..	..	..	..	..	..	..	..
Dunedin Metropolitan Licensing Authority	23	1	3	27	23	1	3	27	..	..	..	..	..	..	..	..	..	..	..	..
No. 1 Transport Licensing Authority	239	4	1,174	1,417	217	4	1,153	1,374	6	..	21	27	8	..	..	8	8	..	..	8
No. 2 Transport Licensing Authority	190	..	982	1,172	184	..	976	1,160	2	..	6	8	1	..	..	1	3	..	..	3
No. 3 Transport Licensing Authority	26	1	466	493	24	1	441	466	..	..	25	25	2	..	..	2	..	..	..	..
No. 4 Transport Licensing Authority	13	..	438	451	6	..	438	444	1	..	..	1	2	..	..	2	4	..	..	4
Totals—1936–37	507	7	4,745	5,259	470	7	4,675	5,152	9	..	69	78	13	..	1	14	15	..	..	15
1935–36	738	28	3,200	3,966	669	26	3,128	3,823	28	2	64	94	28	2	8	38	13	..	..	13
1934–35	771	33	2,548	3,352	720	27	2,515	3,262	16	..	32	48	30	2	..	32	5	4	1	10
1933–34	759	33	1,783	2,575	664	25	1,755	2,444	51	2	27	80	26	3	1	30	18	3	..	21

TABLE No. 9.—TRANSPORT LICENSING ACT, 1931.

TRAFFIC AND FINANCIAL STATISTICS OF LICENSED PASSENGER-SERVICES FOR YEARS ENDED 31ST MARCH, 1933 TO 1937, INCLUSIVE (EXCLUSIVE OF SERVICES LICENSED BY THE FOUR METROPOLITAN LICENSING AUTHORITIES).

Item.	South Island Totals for Year ended 31st March,				North Island Totals for Year ended 31st March,				New Zealand Totals for Year ended 31st March,				
	1937.	1936.	1935.	1934.	1937.	1936.	1935.	1934.	1937.	1936.	1935.	1934.	1933.
Traffic statistics—													
Vehicle journeys	327,748	349,567	353,682	322,659	1,341,966	1,354,625	1,382,839	1,556,087	1,669,714	1,704,192	1,736,521	1,878,746	1,802,878
Vehicle-miles	6,462,462	6,807,948	6,636,213	6,444,607	16,319,559	15,221,391	14,805,708	15,475,980	22,782,021	22,029,339	21,541,921	21,920,587	22,756,313
Empty trips	7,140	7,603	10,502	11,207	41,211	41,123	38,316	46,175	48,351	48,726	48,818	57,382	51,434
Passengers	3,346,279	3,122,355	2,921,847	2,647,146	18,160,297	14,826,996	13,053,489	13,901,571	21,506,576	17,949,351	15,975,336	16,548,717	16,065,672
Operating expenses—	£	£	£	£	£	£	£	£	£	£	£	£	£
Vehicle-running costs (petrol, lubricants, tires, repairs, maintenance, and depreciation)	129,241	138,822	136,138	133,718	332,622	308,296	298,475	305,387	461,863	447,118	434,613	439,105	480,727
Vehicle standing charges (license fees, wages, drawings in lieu of wages, insurance, garage fees)	101,715	86,298	78,995	75,413	253,207	201,883	198,958	205,419	354,922	288,181	277,953	280,832	285,149
General overhead charges (management and office expenses, interest, advertising, &c.)	41,772	33,059	33,250	30,739	90,221	63,634	60,923	59,619	131,993	96,693	94,173	90,358	108,239
Total	272,728	258,179	248,383	239,870	676,050	573,813	558,356	570,425	948,778	831,992	806,739	810,295	874,115
Revenue—													
Passenger	242,646	250,097	231,837	217,158	664,955	557,420	521,588	519,372	907,601	807,517	753,425	736,530	769,086
Mail-contract	15,739	10,974	11,382	13,596	22,211	21,143	19,730	21,581	37,950	32,117	31,112	35,177	31,173
Newspaper	7,202	5,377	5,500	3,850	14,271	13,294	11,449	9,384	21,473	18,671	16,949	13,234	11,799
Goods and parcels	36,039	27,911	26,408	18,994	37,272	31,592	31,049	25,898	73,311	59,503	57,457	44,892	43,864
Other	3,990	3,963	2,287	5,411	13,463	7,709	10,902	13,253	17,453	11,672	13,189	18,664	23,388
Total	305,616	298,322	277,414	259,009	752,172	631,158	594,718	589,488	1,057,788	929,480	872,132	848,497	879,310
Profits	34,204	40,828	32,585	23,744	80,291	59,627	41,819	28,693	114,495	100,455	74,404	52,437	..
Losses	1,316	685	3,554	4,605	4,169	2,282	5,457	9,630	5,485	2,967	9,011	14,235	..
Net profit	32,888	40,143	29,031	19,139	76,122	57,345	36,362	19,063	109,010	97,488	65,393	38,202	5,195

TABLE No. 10.—TRANSPORT LICENSING ACT, 1931.

AVERAGE OPERATING EXPENSES AND REVENUE PER VEHICLE-MILE OF LICENSED PASSENGER-SERVICES FOR YEARS ENDED 31ST MARCH, 1933 TO 1937, INCLUSIVE (EXCLUSIVE OF THE SERVICES LICENSED BY THE FOUR METROPOLITAN LICENSING AUTHORITIES).

Item.	South Island Averages for Year ended 31st March,				North Island Averages for Year ended 31st March,				New Zealand Averages for Year ended 31st March,				
	1937.	1936.	1935.	1934.	1937.	1936.	1935.	1934.	1937.	1936.	1935.	1934.	1933.
Operating expenses—	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Vehicle-running costs (petrol, lubricants, tires, repairs, maintenance, and depreciation)	4·80	4·89	4·92	4·98	4·89	4·86	4·81	4·74	4·87	4·87	4·84	4·81	5·07
Vehicle standing charges (license fees, wages, drawings in lieu of wages, insurance, garage fees)	3·78	3·04	2·86	2·81	3·72	3·18	3·20	3·19	3·74	3·14	3·10	3·07	3·01
General overhead charges (management and office expenses, interest, advertising, &c.)	1·55	1·17	1·20	1·14	1·33	1·00	0·98	0·92	1·39	1·05	1·05	0·99	1·14
Total operating expenses ..	10·13	9·10	8·98	8·93	9·94	9·04	8·99	8·85	10·00	9·06	8·99	8·87	9·22
Revenue—													
Passenger	9·01	8·82	8·38	8·09	9·78	8·79	8·40	8·05	9·56	8·80	8·39	8·06	8·11
Mail-contract	0·58	0·39	0·41	0·51	0·33	0·33	0·32	0·33	0·40	0·35	0·35	0·39	0·33
Newspaper	0·27	0·19	0·20	0·14	0·21	0·21	0·18	0·15	0·23	0·20	0·19	0·14	0·12
Goods and parcels	1·34	0·98	0·96	0·71	0·55	0·50	0·50	0·40	0·77	0·65	0·64	0·49	0·46
Other	0·15	0·14	0·08	0·20	0·19	0·12	0·18	0·21	0·18	0·13	0·15	0·21	0·25
Total revenue	11·35	10·52	10·03	9·65	11·06	9·95	9·58	9·14	11·14	10·13	9·72	9·29	9·27
Net profits	1·22	1·42	1·05	0·72	1·12	0·91	0·59	0·29	1·14	1·07	0·73	0·42	0·05
Net losses	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE No. 11.—TRANSPORT LICENSING ACT, 1931.

STATEMENT OF ASSETS AND LIABILITIES OF LICENSED PASSENGER-SERVICES AS AT 31ST MARCH, 1933 TO 1937, INCLUSIVE (EXCLUDING THE SERVICES LICENSED BY THE FOUR METROPOLITAN LICENSING AUTHORITIES).

	South Island Totals.				North Island Totals.				New Zealand Totals.				
	1937.	1936.	1935.	1934.	1937.	1936.	1935.	1934.	1937.	1936.	1935.	1934.	1933.
(a) Liabilities.	£	£	£	£	£	£	£	£	£	£	£	£	£
Capital and reserves	174,093	166,985	202,154	243,076	433,948	312,374	383,193	436,031	608,041	479,359	585,347	679,107	915,694
Other liabilities	68,049	93,877	101,833	88,546	173,668	163,814	183,403	212,751	241,717	257,691	285,236	301,297	438,461
Total	242,142	260,862	303,987	331,622	607,616	476,188	566,596	648,782	849,758	737,050	870,583	980,404	1,354,155
(b) Assets.													
Passenger-service vehicles	113,012	129,199	121,461	129,566	257,287	225,078	238,164	267,140	370,299	354,277	359,625	396,706	493,683
Other vehicles	19,092	14,117	27,408	24,263	18,964	12,747	23,752	23,779	38,056	26,864	51,160	48,042	62,978
Stocks on hand	11,060	12,537	15,120	14,185	24,334	18,824	23,490	29,098	35,394	31,361	38,610	43,283	52,393
Plant and machinery	6,683	9,015	12,886	10,889	19,422	18,049	18,636	22,277	26,105	27,064	31,522	33,166	46,287
Land and buildings	35,221	61,510	61,709	61,078	108,195	96,262	112,487	131,638	143,416	157,772	174,196	192,716	262,538
Sundry debtors	18,970	16,210	29,629	30,970	29,620	31,137	37,850	54,543	48,590	47,347	67,479	85,513	93,269
Cash on hand and at bank	19,926	11,607	19,842	28,376	53,175	46,136	74,393	44,421	73,101	57,743	94,235	72,797	109,075
Other assets	18,178	6,667	15,932	32,295	96,619	27,955	37,824	75,886	114,797	34,622	53,756	108,181	233,932
Total	242,142	260,862	303,987	331,622	607,616	476,188	566,596	648,782	849,758	737,050	870,583	980,404	1,354,155
Percentage of depreciation on reducing value	Per Cent. 16·67	Per Cent. 20·73	Per Cent. 19·7	Per Cent. 18·7	Per Cent. 15·95	Per Cent. 22·5	Per Cent. 21·1	Per Cent. 18·9	Per Cent. 16·40	Per Cent. 21·85	Per Cent. 20·7	Per Cent. 18·8	Per Cent. 18·4

TABLE No. 12.—TRANSPORT LICENSING ACT, 1931.

TABLE SHOWING THE POSITION WITH RESPECT TO APPLICATIONS FOR GOODS-SERVICE LICENSES FOR YEAR ENDED 31ST MARCH, 1937.

Licensing Authority.	Number of Applications dealt with.				Number of Decisions given.								Number of Applications withdrawn.				Number of Decisions deferred.			
					Granted.				Refused.											
	Continuous.	Seasonal.	Temporary.	Total.	Continuous.	Seasonal.	Temporary.	Total.	Continuous.	Seasonal.	Temporary.	Total.	Continuous.	Seasonal.	Temporary.	Total.	Continuous.	Seasonal.	Temporary.	Total.
No. 1 Licensing Authority ..	601	25	327	953	549	5	287	841	13	1	40	54	17	11	..	28	29	1	..	30
No. 2 Licensing Authority ..	694	..	..	694	614	..	..	614	43	..	..	43	15	..	..	15	22	..	..	22
No. 3 Licensing Authority ..	388	25	..	413	332	20	..	352	22	..	..	22	6	5	..	11	6	..	..	6
No. 4 Licensing Authority ..	446	2	..	448	255	..	..	255	1	..	..	1	9	..	..	9	92	2	..	94
Totals—1936–37 ..	2,129	52	327	2,508	1,750	25	287	2,062	79	1	40	120	47	16	..	63	149	3	..	152
1935–36 ..	2,080	104	8,489	10,673	1,999	93	8,458	10,550	56	4	31	91	14	6	..	20	11	1	..	12
1934–35 ..	2,146	108	7,399	9,653	2,016	89	7,390	9,495	91	9	9	109	25	7	..	32	14	3	..	17
1933–34 ..	2,146	99	3,800	6,045	1,898	88	3,793	5,779	118	3	7	128	43	8	..	51	87	..	..	87

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

TRAFFIC, REVENUE, EXPENDITURE, AND CAPITAL STATISTICS OF LICENSED GOODS-SERVICES FOR YEARS ENDED 31ST MARCH, 1934, 1935, 1936, AND 1937.

	North Island Totals, Year ended 31st March,			South Island Totals, Year ended 31st March,			New Zealand Totals, Year ended 31st March,			
	1937.	1936.	1935.	1937.	1936.	1935.	1937.	1936.	1935.	1934.
Traffic statistics—										
Total number of operators .. .. Number	1,445	1,390	1,405	666	614	609	2,111	2,004	2,024	1,904
Number of vehicle authorities issued.. Number	2,613	2,378	2,351	1,140	990	1,004	3,753	3,368	3,355	2,906
Average mileage per vehicle .. Miles	15,725	15,159	14,211	13,632	13,552	12,531	15,089	14,687	13,744	12,693
Total vehicle-miles run .. .. Number	41,089,000	36,049,000	33,410,000	15,540,000	13,416,000	12,581,000	56,629,000	49,465,000	45,991,000	36,886,000
Revenue and expenditure statistics—	£	£	£	£	£	£	£	£	£	£
Total operating costs	1,662,000	1,308,000	1,313,000	646,000	497,000	509,000	2,308,000	1,805,000	1,822,000	1,463,000
Total revenue	1,930,000	1,490,000	1,456,000	749,000	580,000	581,000	2,679,000	2,070,000	2,037,000	1,639,000
Total profits	268,000	182,000	143,000	103,000	83,000	72,000	371,000	265,000	215,000	176,000
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Average operating costs per vehicle-mile ..	9·71	8·71	9·43	9·97	8·89	9·71	9·78	8·76	9·51	9·52
Average revenue per vehicle-mile	11·08	9·92	10·46	11·57	10·37	11·08	11·35	10·04	10·63	10·66
Average profit per vehicle-mile	1·37	1·21	1·03	1·60	1·48	1·37	1·57	1·28	1·12	1·14
	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Percentage of profit to operators' capital ..	21·35	20·71	13·58	19·16	20·24	15·93	20·94	20·56	14·28	10·95
Percentage of profit to total capital invested ..	14·54	13·48	9·05	14·20	14·46	10·96	14·65	13·77	9·61	7·25
Capital investment statistics—	£	£	£	£	£	£	£	£	£	£
Total operators' capital	1,194,000	879,000	1,053,000	577,000	410,000	452,000	1,771,000	1,289,000	1,505,000	1,607,000
Total "outside" liabilities	559,000	471,000	527,000	202,000	164,000	205,000	761,000	635,000	732,000	820,000
Total capital invested	1,753,000	1,350,000	1,580,000	779,000	574,000	657,000	2,532,000	1,924,000	2,237,000	2,427,000
Average capital per operator	826	632	749	866	668	742	839	643	744	844
Average "outside" liabilities per operator ..	387	339	375	303	267	337	360	317	361	431
Average total capital invested per operator ..	1,213	971	1,124	1,169	935	1,079	1,199	960	1,105	1,275

TABLE No. 14.—FATAL MOTOR ACCIDENTS.

TABLE SHOWING ANALYSES OF VARIOUS DATA RELATING TO FATAL MOTOR ACCIDENTS IN THE DOMINION DURING THE YEARS ENDED 31ST MARCH, 1930 TO 1937.

—	Year ending 31st March, 1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
1. NUMBER OF ACCIDENTS.								
(a) Classified according to Main Types.								
Collisions—								
Motor-vehicle with pedestrian ..	52	55	30	45	26	46	56	54
Motor-vehicle with motor-vehicle	40	75	29	39	21	36	45	56
Motor-vehicle with train ..	7	11	8	3	9	10	4	11
Motor-vehicle with tram ..	1	1	1	1	..	2	2	2
Motor-vehicle with bicycle ..	12	7	11	16	15	23	27	25
Motor-vehicle with horse-vehicle or horse under control	4	1	1	6	4	3	1	..
Motor vehicle with fixed object ..	6	8	15	5	6	7	9	11
Motor-vehicle with straying stock	1	1	..	1	2	2	3	..
No collisions—								
Went over bank	27	29	22	9	18	22	18	9
Otherwise	22	33	31	15	24	23	26	35
Total accidents	172	221	148	140	125	174	191	203
(b) Classified according to Hour of Accident.								
Midnight to 1 a.m.	..	4	4	2	4	4	4	7
1 to 6 a.m.	7	8	3	5	5	8	11	10
6 to 7 a.m.	1	1	..	2	..	3	4	1
7 to 8 a.m.	1	7	5	4	3	3	5	2
8 to 9 a.m.	6	5	1	2	3	8	5	5
9 to 10 a.m.	4	4	4	2	6	9	7	5
10 to 11 a.m.	5	10	6	11	8	3	3	6
11 to noon	11	15	8	9	10	5	8	8
12 to 1 p.m.	4	5	9	7	5	11	3	11
1 to 2 p.m.	10	4	9	8	4	5	6	9
2 to 3 p.m.	8	13	8	4	6	14	8	8
3 to 4 p.m.	2	16	8	9	8	8	15	9
4 to 5 p.m.	24	18	14	12	10	14	16	14
5 to 6 p.m.	23	20	17	15	17	22	23	20
6 to 7 p.m.	23	24	18	16	8	20	18	21
7 to 8 p.m.	11	16	9	15	14	10	20	24
8 to 9 p.m.	12	20	4	8	4	8	6	14
9 to 10 p.m.	5	7	9	3	2	7	13	9
10 to 11 p.m.	8	14	6	4	4	5	9	8
11 to 12 midnight	7	10	6	2	4	7	4	8
Unspecified	..	..	..	..	..	..	3	4
Total accidents ..	172	221	148	140	125	174	191	203
(c) Classified according to Day of Week.								
Sunday	26	33	24	22	17	24	34	28
Monday	23	28	21	13	23	27	31	30
Tuesday	17	24	14	17	11	22	15	13
Wednesday	28	25	10	17	10	17	21	12
Thursday	21	23	13	20	15	21	23	36
Friday	22	33	27	19	13	26	24	29
Saturday	35	55	39	32	36	37	43	55
Total accidents ..	172	221	148	140	125	174	191	203
(d) Classified according to Condition of Light.								
Daylight	86	89	93	80	72	91	93	100
Dusk	19	34	13	4	12	23	23	23
Artificial lighting	22	20	12	3	12	14	11	27
Darkness or moonlight	45	78	30	53	29	46	64	53
Total accidents	172	221	148	140	125	174	191	203
(e) Classified according to Nature of Thoroughfare.								
Intersection	19	18	17	20	19	28	19	30
Railway-crossing	7	9	7	3	9	10	4	11
Nature or condition of road (bad surface or bend, &c., contributed to accident)	48	51	27	12	18	32	55	19
Road conditions not a factor ..	98	143	97	105	79	104	113	143
Total accidents	172	221	148	140	125	174	191	203
(f) Classified according to Geographical Location.								
(a) North Island—								
Auckland City and environs	29	25	28	33	19	27	34	20
Wellington City and environs	16	19	15	8	13	14	20	7
Other towns	20	31	14	7	10	19	41	29
Country	57	88	48	40	44	48	39	72
(b) South Island—								
Christchurch City and environs	13	14	9	16	10	15	21	8
Dunedin City and environs ..	4	8	4	2	6	7	12	6
Other towns	8	11	11	14	7	9	11	14
Country	25	25	19	20	16	35	13	47
Total accidents	172	221	148	140	125	174	191	203

—	Year ended 31st March, 1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
2. NUMBER OF PERSONS KILLED IN MOTOR ACCIDENTS.								
(a) Classified according to Age of the Person killed.								
0–4 years	10	7	4	5	9	7	8	6
5–9 years	8	9	8	11	4	11	11	5
10–14 years	2	5	5	4	4	8	10	6
15–19 years	17	24	18	17	13	27	18	18
20–24 years	30	45	15	15	18	15	34	22
25–54 years	83	100	81	60	56	88	67	88
55 years and over	36	57	26	31	31	26	48	47
Unspecified	..	..	..	..	..	..	7	21
Total deaths ..	186	247	157	143	135	182	203	213
(b) Classified according to the Location of the Person killed.								
Pedestrians	53	55	28	45	26	45	55	55
On motor-cycles	51	58	47	39	27	48	50	53
On other motor-vehicles	68	119	72	38	64	66	70	78
On other vehicles or horses ..	14	15	10	21	18	23	28	27
Total deaths	186	247	157	143	135	182	203	213
3. TYPES OF VEHICLE INVOLVED.								
Motor-cycle	59	64	51	48	27	55	54	56
Private motor-car	105	132	75	73	67	97	109	119
Taxi-cab	2	4	11	5	5	5	9	12
Service-car	5	5	1	3	2	1	1	2
Motor-omnibus	3	5	4	..	1	2	1	2
Motor lorry or van	39	46	29	44	38	45	62	55
Bicycle	12	7	11	20	17	22	25	25
Tram	2	1	1	1	..	2	6	2
Horse-drawn	4	..	..	5	4	2	1	..
Train	7	9	7	3	9	10	..	11
Other vehicles	1	..	1	..	..	1	..	2
Total vehicles	239	273	191	202	170	242	268	286
4. BREACHES OF LAW, AND OTHER CAUSES OF FATAL MOTOR ACCIDENTS.								
Breaches of law—								
Excessive speed in circumstances—								
(a) But not exceeding 20 miles per hour	33	6	5	6	1	5	5	4
(b) Exceeding 20 but not exceeding 35 miles per hour	35	25	19	16	15	21	20	4
(c) Exceeding 35 miles per hour	18	32	13	9	8	20	18	12
On wrong side of road ..	24	38	19	22	13	16	22	26
Did not comply with "offside" rule	7	7	7	11	8	14	12	19
Passing standing tram ..	3	..	..	..	..	..	..	..
Other passing breaches ..	9	4	2	1	4	4	4	..
Failure of driver to signal—								
Motor-vehicles	3	..	2	..	..	3	..	..
Other vehicles	2	..	..	1	..	..	2	3
Breaches of law relating to railway-intersections	7	11	7	3	8	10	4	7
Vehicle without rear reflector or with inefficient one	2	2	1	..	1	3	..	1
Faulty brakes	8	9	6	7	2	6	4	6
No lights or inefficient lights (including horse vehicles and bicycles)	22	17	9	14	15	11	15	8
Glaring headlights	4	10	2	4	2	10	11	5
Faulty steering-gear	3	4	3	2	2	4	2	2
Faulty tires or wheels	4	8	4	1	..	2	4	..
Driver's mild intoxication a factor in accident	12	26	7	6	2	12	1	23
Driver's severe intoxication a factor in accident	3	7	4	4	2	6	5	8
Driver unlicensed or inexperienced	5	2	7	2	3	6	1	1
Straying stock	1	1	1	1	2	2	2	..
Other breaches of law	5	2	1	12	3	8	5	26
Other causes—								
Bad weather conditions ..	19	4	3	1	9	11	6	15
Vehicle being reversed ..	3	2	..	5	6	5	2	1
Obstruction to view by parked motor-vehicle	4	5	..	1	..	..	7	3
Sun-dazzle	2	..	..	..	..	..	1	..
Driver's physical defect a direct cause	4	..	1	2	1	2	1	..
Motorist and pedestrian—								
Motorist at fault	17	9	1	13	5	7	13	15
Pedestrian (not intoxicated) crossing or on road without care or becoming confused	17	30	12	19	9	17	25	18
Pedestrian intoxicated ..	5	5	3	2	6	4	5	10
Children on streets	2	7	7	6	2	10	6	2
Infant (under six) not under proper control	9	1	1	5	3	3	7	1
Other causes of pedestrian accidents	6	1	4	..	1	5	..	8
Causes not included under the above headings	4	22	34	17	13	16	30	28
Total causes	302	297	185	193	146	243	240	252

APPENDIX B.—REPORTS OF SUB-COMMITTEES OF THE NEW ZEALAND ROAD SAFETY COUNCIL AS ADOPTED BY THE COUNCIL.

ADULT EDUCATION AND PROPAGANDA.

Introductory.

Your Committee has held three meetings and, in addition, members have consulted individually with persons from whom valuable information was received. The Committee has considered ways and means of—

Awakening the conscience of the people to the consequences of road accidents, and of securing the full and willing co-operation of the public in an effort to reduce, and if possible eliminate, such accidents;

Educating the individual road-user regarding the requirements laid down by the law and by a reasonable standard of conduct in his relations to other road-users; and

Inculcating in the mind of the individual a consciousness in which observance of the law and habits of caution and consideration will become second nature.

Approach to the Problem.

We considered that we should not set out to suggest how a given amount of money should be expended, but that we should formulate a scheme which, if applied in full, will achieve the maximum results possible through education and propaganda, leaving it to the Council to determine the extent to which the scheme can be applied having regard to the funds that can be provided.

Extravagant expenditure is not suggested by your committee, but the Council may feel that somewhat heavy expenditure will be desirable and perhaps unavoidable. An attempt to conduct an educational campaign in anything but a thorough manner may be said to indicate an inadequate appreciation of the humanitarian and other social aspects of the problem, and of the substantial savings which can be made in hospital expenditure, pensions, insurance-costs, policing, and road expenditure.

The alternative to a thorough educational and propaganda campaign is that expenditure, heavier than need be under the several heads mentioned, must be maintained, and that the Courts must continue to punish. Remedial action through the Courts, even if it be preventive in character, is undesirable if it is avoidable, and we think this is a matter which should engage the thoughts of members of the Council. Many of those so punished will be persons whose offences are due to ignorance, apathy, thoughtlessness, or carelessness. It will not be a satisfactory condition if people are caused to feel that through fear of punishment they must observe restrictions which to them may seem unnecessary and which serve to irritate and antagonize them. We do not regard the repressive action of the law as a proper means of dealing with a question which affects the entire population. It is necessary as a background for the coercion of the recalcitrant, but the majority of people are decent people who will come voluntarily into line if approached reasonably.

The good will of the public is necessary, and it is most unlikely that effective co-operation can be brought about by the infliction of penalties, or while they remain one of the major forms of treatment. Moreover, the issue will tend to be, more so than in the past, one as between motorist and pedestrian or, what is perhaps worse, an issue as between the public and those responsible for the enforcement of the law, with the tendency on the part of motorists in particular to distrust and outwit police and traffic officers as the representatives of laws which restrict the freedom of the individual. We are of the opinion that every effort should be made to obviate such sectional distinctions and other undesirable psychological reactions.

As to the type of propaganda, we are agreed that appeals to the emotions by the use of gruesome propaganda are generally undesirable. The engendering of fear, with the reaction of daring or contempt of danger as a psychological reaction against fear, is likely to follow the use of gruesome propaganda. The keynote should be instruction and persuasion.

In the light of these general remarks we offer the suggestion that parsimony in expenditure upon education and propaganda may not be true economy, and that spasmodic efforts or a short-term programme cannot be expected to produce lasting results. We consider that the Council should visualize a long-range plan and, in order that it may be seen how effective educational and propaganda methods can be, that a systematic plan of operations for at least one year should be pursued, at the end of which time the desirability or otherwise of continuing action on similar lines can be ascertained in the light of the results achieved.

As time goes on, provided suitable educational methods are introduced in the schools, the necessity for adult instruction will become less. Although matters relating to education and propaganda for school-children are outside our province, we express the opinion that when looking at the future the Council should resolve to commence with the child.

Co-operation between Advertising Agencies and Council.

We have discussed publicity measures with representatives of the principal advertising agencies, and we take this opportunity of referring to their readiness to act as one body and to co-operate in the formulation and the carrying-out of a comprehensive scheme. The agencies are desirous of contributing something to the campaign and are prepared to place their

experience, skill, and knowledge at the disposal of the Council. No payment is expected for any service they can render in that way, but they have reasonably assumed that they would be reimbursed for out-of-pocket expenses, such as the cost of drawings, production of blocks, and printing, and that they would be free to receive commission in respect of newspaper advertising.

The Committee has considered whether or not the newspapers should be asked to give some reduction in their advertising rates. We think it preferable that the Council should request that equivalent assistance be given by having favoured positions allotted for the Council's advertising matter; also, in the news columns prominence might be given to questions with which the Council is concerned.

We think that there will be a good psychological effect if publicity matter is issued over the name of the Road Safety Council rather than that it be under the auspices of a Department of State. This would be helped by a consideration of the fact that the Council was constituted as the outcome of a gathering representative of all classes of road users. The widest possible co-operation is of course desirable.

If the Council can see its way to approve our suggestion that the advertising agencies' offer of co-operation be accepted, then the most valuable assistance at no extra cost would be at the disposal of the Council and would make possible the continuous supervision of the publicity by the sub-committee should the Council desire the Committee so to act.

Means available for the Dissemination of Educational and Propaganda Matter.

(*a*) Handbooks and leaflets;
(*b*) Newspapers;
(*c*) Radio;
(*d*) Picture theatres;
(*e*) Posters; and
(*f*) General.

We think that all should be utilized in order that the greatest coverage may be secured. Some people will not be reached at all by any one of these means and some will be more responsive to one method than to another, each form of advertisement having its own appeal. Also, by the employment of the several methods the subject will be kept more constantly before the public, while the variety so provided will in itself be of value.

(*a*) *Handbooks and Leaflets.*—The issue of a Highway Code is desirable. This, however, does not carry the matter far enough, as there are many into whose possession a handbook cannot be placed and many who will not study its contents. Also, there are definite limits to the quantity of matter which can be included in a handbook of a size likely to be read by any one other than the person who is the least likely to offend, and as the information it contains will not be constantly under notice it is not likely to have a deep and lasting effect. Nevertheless we consider that the issue of handbooks is desirable, mainly because people should at least have the opportunity of acquainting themselves, from an authoritative source, with what is required of them in matters affecting the safety of themselves and other road-users.

We presume that if a handbook is prepared it will contain rules for the guidance of all road-users. As to distribution, the alternative means are:—

(1) Distribution at the time drivers' licenses are renewed or otherwise issued, in which case cyclists and pedestrians would not be specifically provided for.
(2) Postal distribution, which we favour because of its completeness—one can be put into every household—and because it permits of distribution earlier than would be possible under the alternative method, The cost of postal distribution in the ordinary way would be in the vicinity of £750, but in view of the Government's interest in the matter it should be possible to come to some special arrangement with the Postal Department.

In addition to a general handbook, we think that some special provision should be made by way of leaflets for pedal cyclists. Effective means of distribution are lacking, but a considerable number could be reached by having supplies of leaflets placed in the shops of cycle-dealers with a request to proprietors that they have them handed to their customers.

(*b*) *Newspapers.*—We regard the newspapers as a most important medium for the dissemination of information. A newspaper is read daily by almost every adult, and by younger people also, and its written or pictorial message reaches the reader when he is in a reflective state of mind. The news columns and editorial columns can feature questions with which the Council is concerned, and it appears to us that considerable service has been rendered in this way in recent months. No doubt newspapers will continue to help in this manner, but it would be rather too much to expect that all newspapers necessarily conducted as businesses should over a very long period give special publicity in their columns by backpaging other news likely to be of more interest to their readers. Because of its general utility value we think that a good deal of the propaganda effort should be made through the newspapers.

(*c*) *Radio.*—We regard the radio as a valuable complement to the newspapers and not as an adequate substitute for them. It conveys the spoken word, which is more fleeting than the written message. There are radio sets in upwards of 60 per cent. of the homes and, provided the occupiers of those homes were constantly listening-in, it should be taken that any message would come to their ears and be received by them when in a state of relaxation. Many people are adverse to being lectured, and where the personality of a speaker enters into the question—as it does in all cases—there is some danger of antagonism and the message fails to "get home."

We think the radio should be used for the following purposes:—

Short addresses, weekly or fortnightly, by the Chairman of the Council and other selected speakers;

Progress bulletins, fortnightly or monthly;

Radio plays, once monthly;

Short recordings for driving home safety maxims.

Listeners may be caused to become more interested by bringing them into participation in the scheme, and incidentally instructing them, by inviting them to send in their verdict on Court trials concerning various types of accidents, or by arranging safety-slogan competitions.

Members of the Committee have visited the recording studios which have facilities for the recording of plays, &c. The firm has quoted for one play a month, £15; and for one a fortnight, £12 10s., these prices including the cost of the script, remuneration of players, and the supplying of four recordings of each play. For gramophone records, each having six one-minute maxims, a quote of 10s. each has been made for quantities of 100 or more of each record. A quotation was given for this number, as the records would be suitable both for broadcasting and for use in picture-theatres in conjunction with the screening of slides.

(*d*) *Picture-theatres.*—Through this medium, advice-slogans portrayed on slides or on gramophone records can be brought before a large proportion of the public. Slides and recordings may be used in conjunction. We think that some use should be made of these facilities. The use of long films does not commend itself greatly to the Committee for the reason that those produced overseas and screened recently in Wellington did not appear to us to be particularly suitable, while the production of films suitable for New Zealand conditions would be both difficult and costly. Films plotted in miniature present less technical difficulty and eliminate the necessity for actors. Each of the more common causes of accidents can thus be portrayed on the screen in a few minutes, the necessary explanation being given by the filmed voice of the commentator. The facilities of the Government Publicity Department could be utilized in this connection.

(*e*) *Posters.*—We think that posters should be used for the most important of the safety messages chiefly of the warning type. For location out-of-doors the message must be, of course, brief. There should be no great difficulty in arranging for posters of reduced size to be displayed periodically in trams, buses, trains, shop-windows, lifts, &c.

(*f*) *General:*—

Safety-first Slogans.—The Post and Telegraph Department is prepared to run slogans, free of charge—other than the small cost of making the stamps—in post-marking machines in the four main centres.

Government Publications.—Arrangements could perhaps be made for the inclusion of a certain amount of educational and propaganda matter in the *Railway Magazine*, *Radio Record*, and the *Education Gazette*.

Progress Bulletins.—The preparation of regular bulletins of casualties, with comparisons with previous periods, for publication in the press and over the air, would assist by keeping the result-factor before the public.

Motor Gymkhanas and Agricultural and Pastoral Shows.—On these occasions practical safety-first demonstrations may be given.

Co-operation by Traders.—There should be some response to an invitation to firms to co-operate. Directions in which they may assist are by the displaying of posters in the official opening week of the campaign; by the permanent display of posters by firms dealing in motor-vehicles, cycles, and accessories; and the larger of those firms may be prepared to incorporate the safety idea in some of their advertising; also the covers of school exercise-books and writing-pads could be utilized by publishers for the reproduction of drawings illustrating traffic rules.

Special Treatment for each Class of Road-user.

Much of the general propaganda will be educational and of concern to road-users as a whole, but we think that some special attention should be given to the various groups:—

Motorists.—We have discussed the question of raising the standard of drivers, and though this may at first sight appear to be somewhat outside our province we think it is one of the fundamentals of education with which the Council should concern itself. We propose, therefore, that—

(1) A standard, uniform throughout the Dominion and higher than that now observed by many licensing authorities outside the larger centres, should be set up for the testing of applicants for drivers' licenses, and the licensing authorities be required to ensure that the standard is observed.

(2) No official should be permitted to examine applicants unless the Minister is satisfied that he possesses the necessary qualifications.

(3) A booklet be prepared and issued setting out a syllabus for the examination of applicants for licenses.

We suggest that a small committee be set up to prepare data for the booklet proposed, and that the Chief Traffic Officer of the Wellington City Council and the secretary of the Wellington Automobile Association be invited to act on this committee. Our proposal is supported by the view that a Highway Code by itself is not sufficient for the beginner, and, further, it may not be unreasonable to require present holders of licenses who are found to be prone to accidents to be tested again with a view to their satisfying the requirements of the revised standard before their licenses are renewed.

Motor-cyclists.—Motor-cycles are involved in so many accidents that a special approach to this section of motoring appears necessary. We think that, in addition to special publicity, the matter should be treated in the manner suggested for applicants for motor-car drivers' licenses.

Pedal Cyclists.—These, as a group, will probably be the hardest to persuade, and in the absence of provision for registration we can only suggest that special publicity be directed to the pedal cyclist. Many of them are school-children and can be directly reached in the schools.

Pedestrians.—Upon the coming into operation of new regulations affecting pedestrians, special publicity will be necessary to encourage and, if possible, ensure observance of the regulations. In this connection we mention a small booklet entitled "Road Safety for Pedestrians" issued by the General Accident, Fire, and Life Assurance Corporation, with a foreword by the British Minister of Transport.

Traffic Officers.—We also refer to the desirability of giving advice and instruction to Traffic Officers so that they may be better able to contribute to the movement for the instruction and co-operation of road users.

SUMMARY.

As we are not aware what funds will be available for the Council's purposes it is not possible for us to make positive and detailed recommendations as to the extent to which the various means should be employed, but we submit herewith the outline of a comprehensive scheme for the consideration of the Council from the standpoints of desirability and practicability. This scheme has been prepared by the advertising agencies at our request and after full consultation between the representatives of the agencies and the Committee.

The principal matters referred to in this report are summarized as under:—

(1) Comprehensive educational and propaganda scheme, continuously applied, and designed to enlist full co-operation of the public and to achieve maximum results, including reduction in expenditure in other directions and lessening necessity for action in the Courts.
(2) Provision for the future by introduction of safety-first education into the schools.
(3) Advertising agencies' offer of co-operation.
(4) Publicity under the auspices of the Council.
(5) Highway Code: Issue and method of distribution.
(6) Newspapers: General advertising, letterpress, editorials.
(7) Radio: Short addresses at regular intervals; progress reports; radio plays; short recordings- safety maxims; competitions to interest and educate listeners.
(8) Picture-theatres: Advice slogans on slides and records; short films portraying traffic rules in preference to long films.
(9) Posters: Out-of-doors and in trams, buses, trains, shops, and lifts.
(10) Safety-first Slogans: Post Office stamp-cancelling machines.
(11) Utilization of Government publications.
(12) Regular bulletins of casualties: Press and radio.
(13) Practical demonstrations at motor gymkhanas and agricultural and pastoral shows.
(14) Co-operation of traders.
(15) Uniform standard of qualifications for drivers' licenses.
(16) Special treatment for each class of road-user.

F. C. SPRATT, Chairman.

[This report and the Addendum following were adopted by the Council subject to the question of finance being held over and the Minister's responsibility for policy being kept in view.]

ADDENDUM.

Since writing our report we have examined in detail, and have adopted, the attached report of the Advertising Agencies (not published herein).

Although the amount involved (£50,000 for the first year) may appear to be considerable, the committee is fully seized of the importance of the Council's objectives, and we feel that the question is one which should first of all be looked at in that light.

We mention the saving of life, the prevention of injury and incapacity, and the saving of property—with consequential savings and benefits to the community as a whole, to Hospital Boards, and to insurance companies, and to the State itself in the form of a reduction in the costs of pensions, prosecutions, prisons, &c.

If the results of road-safety education went no further than the saving of twenty-five useful lives a year, and adopting the figure of £2,000 as the economic value of each, there would be a recoupment of the full amount; but there are, in addition, various other savings, both direct and indirect.

CHILD EDUCATION AND PROPAGANDA.

General.

1. Measures taken to promote road safety for all classes of road-users will make for safer road conditions for children, and special measures for children will be complementary to and largely dependent upon the action taken with regard to road-users in general.

It is clearly desirable that some special attention should be paid to the education and training of children, not only because their own immediate welfare is concerned, but also because they will later have to assume the responsibilities which devolve upon the adult road-user.

2. In the very early years of the child's life the responsibility for the training of the child must necessarily rest with the parent.

In order that all parents may realize their obligations, we suggest the issue and distribution of a "Road Safety Code for Parents" somewhat on the lines of the code (Appendix A) recommended by the Inter-departmental Committee (England and Wales) on Road Safety among School-children.

3. In the Highway Code, and in the course of any general publicity, it should be impressed upon motor-vehicle drivers that children cannot be expected to show the judgment and caution possessed by adults.

Drivers of motor-vehicles should be discouraged from parking their vehicles immediately near school-exits.

Instruction in Schools.

4. Road-safety instruction should form part of the training given at Teachers' Training Colleges.

5. Each teacher should be supplied with a copy of the Highway Code and with other material, in the form of literature, drawings, or posters, for use when giving talks to pupils.

6. As a step in the direction of introducing road-safety training into schools, the Education Department arranged for the inclusion of an article in the September issue of the *Education Gazette* (Appendix B), and portion of it is quoted here:—

> "... All teachers, whether head teachers or assistants, are enjoined to co-operate in this humanitarian work and to regard this aspect of education as of paramount importance. Time spent in all other forms of education is practically useless if the pupil is subsequently killed or crippled.
>
> "The Department hopes from time to time to issue more particular advice, but meantime feels that teachers will day by day or week by week mention certain aspects of the problem to their classes. The following are some points that may be noted:—
>
> 'It is proposed to issue a highway code shortly, and when this is done further attention will be drawn to the matter."

7. In addition to special talks by teachers, there are various ways by which road-safety education and training can be introduced into the school.

8. Essays on road-safety topic. These should not be of the competitive type, but should involve, in the case of senior pupils, some measure of independent research.

9. Drawing and handwork, by means of which a knowledge of traffic signs can be imparted.

10. Playground games and demonstrations.

11. Gramophone recordings and special talks may be included in the educational programmes which are broadcast weekly from the main national stations. (Some eight hundred schools are equipped with radio sets.)

12. Upon the dismissal of the school at midday and in the afternoon, teachers could with advantage make some short reference to those rules of the road with which children are especially concerned, and the need for observance of them.

13. When children are taken to sports-grounds or swimming-baths, or upon educational visits, the opportunity should be taken by teachers to give training under actual traffic conditions.

14. The efforts of teachers would be furthered if arrangements could be made for addresses to be given by uniformed Traffic Inspectors.

15. Publishers of school stationery would doubtless be prepared to have suitable designs, accompanied by appropriate slogans, on the covers of school exercise-books. Suitable drawings or blocks, together with descriptive matter, could perhaps be supplied to firms prepared to co-operate in this manner.

16. The Boy Scouts' Association has offered to assist in any way possible. We suggest that the organization be invited to include the Highway Code and allied subjects in the training of Boy Scouts.

Bicycles, etc.

17. Cyclists: If a code of rules for cyclists is prepared, as we think should be done, a copy should be placed in the possession of every school-child cyclist, and children should be instructed to bring the code to the notice of their parents.

A printed set of rules and hints for pupils, with a section for parents, on the lines shown in Appendix C, is suggested.

18. (*a*) The carrying of large parcels on bicycles should be prohibited.

(*b*) The use of scooters or skates on the footpath or highway should be discouraged or prohibited. The use of trollies for any purpose other than carrying goods should be forbidden.

Schools and Playgrounds.

19. When proposals for the erection of new schools are under attention, steps should be taken to see that the entrances are on to side streets or roads.

20. In some cases of existing schools it may be desirable and practicable to move the entrance from the main road to a side road.

Education Boards should be instructed to make a survey with a view to ascertaining the cases where action in this direction would be desirable.

21. Barriers, erected at the edge of the footpath opposite the school gates, should be provided where necessary.

These might be given an added value by having a Safety First sign displayed thereon.

22. Tram and bus stops should not be placed immediately near school exits.

23. In fixing the position for pedestrian crossings due regard should be given to the needs of children attending schools in the vicinity.

24. The desirability of providing play-areas, including small playing-spaces for young children, should be considered in connection with housing schemes. Boroughs and City Councils should make a census of all areas suitable for children's playing-grounds. The possibility of employing supervisors of such areas should be considered.

25. Municipal authorities could be asked to investigate these matters. The co-operation of the Ministry of Housing would be valuable both with respect of the Government's housing schemes and those undertaken by local bodies.

Supplementary.

26. The Committee has considered the question of school patrols. There seems some reason to believe that children acting as patrols, or their parents, could be held legally liable in the event of accidents occurring to children in the charge of patrols. Apart from this, it is very doubtful whether the responsibilities involved should be placed upon school-children.

Adult control is preferable and, at busy spots, indispensable.

The question is one which, we think, should be examined by Education Boards and local safety committees before action is taken to encourage the establishment of school patrols.

27. Local interest would be created and co-operation brought about by the establishment of local Children's Safety Committees on which local bodies, teachers, and School Committees could be represented. They should be advisory bodies, and their recommendations as to the particular needs of localities would come forward to a central body and by that body be forwarded to the Departments of Education and Transport.

28. (*a*) During or at the conclusion of each matinee a slide should be shown on the screen to remind the audience to observe the traffic rules. A similar slide should be shown in every theatre at the conclusion of every performance. The slide should enjoin safety on both motorists and pedestrians.

(*b*) Films depicting road-safety precautions should be prepared or procured and shown at special, matinee, or ordinary performances.

29. Talks on road safety have already been given during the schools educational session. This service should be continued. If statistics of accidents to children were available these should be broadcasted during adult sessions. These statistics should be published regularly in the *Education Gazette*.

30. The question whether pedestrians should walk to the left or to the right on the highway should be definitely determined.

31. Post-primary schools should consider the possibility of forming classes for training youthful motorists who are pupils of the schools.

J. W. McIlraith, Chairman.

[Adopted by the Council with amendments as incorporated and subject to the attention of the children being drawn to the provisions of the Highway Code concerning keeping to the footpath and keeping to the right on roadways.]

VEHICLE AND HIGHWAY LIGHTING.

I have to report that this Committee, in view of the urgency of finalizing the proposed Traffic Regulations, has so far devoted its attention wholly to the question of vehicle-lighting, leaving the matter of highway-lighting for future consideration.

Lighting Regulations.

The Committee has made a thorough examination of all the clauses of Regulation 7 of the proposed Traffic Regulations and recommends a number of amendments for the consideration of the Council.

Regulation 7, amended according to these recommendations, would read as follows (substitutions or additions being in italics) :—

Clause (1) : To read as formerly :—

> "Save as provided by clauses (9) and (10) hereof, no person shall operate a motor-vehicle during lighting-up time unless it is equipped as provided in this regulation and unless the lights required to be equipped are operated so as to comply with the requirements of this regulation."

Clause (2): To read as formerly, subject, however, to possible revision by the Council in connection with the provision of "pass lights," referred to at the end of this report:—

"Every motor-vehicle other than a motor-cycle shall be equipped with two, and not more than two, driving-lights attached thereto, which shall be—

"(*a*) Of approximately equal candle-power:

"(*b*) Placed one towards each side of the vehicle, and in such a manner that they may direct a beam of light ahead of the vehicle:

"(*c*) Of sufficient power to enable substantial objects and the nature of the road surface to be clearly visible under normal driving and atmospheric conditions by a driver of normal vision at a distance of at least 150 ft. directly in front of the vehicle."

Clause (3): Amended to read as follows:—

"Every driving-light attached to a motor-vehicle shall be so focussed and adjusted that under all operating conditions when the vehicle is standing on a horizontal surface *the main beam of light will be projected downwards so that its centre will meet the road surface at a distance of not more than 200 ft. ahead of the vehicle.*"

The Committee is convinced that a descending beam setting is desirable in order that the glare factor may be reduced. This is particularly so in the case of the light type of English car where, with a beam set horizontally, under certain conditions of loading the main rays may be directed at an upward angle, thus causing disconcerting glare to other traffic.

Experiments were carried out with different settings and various types of cars, and it was found that a headlight beam whose centre strikes the road surface at a distance of 150 ft. ahead of the vehicle reduces the glare factor under all loading conditions to a minimum, consistent with adequate driving visibility.

However, it is impracticable to require a setting of the lamps to ensure the centre of the beam striking the roadway at an exact distance such as 150 ft. for the following reasons:—

(i) Even with an exact setting, the distance is variable with many types of car according to the loading conditions:

(ii) Owing to the varying height of the lamps from the ground in different types and models of vehicles, with a consequent variable setting-angle, it would not be a very simple matter for motorists generally to have their lights set precisely as required; and

(iii) Such a regulation would be difficult to enforce.

It is thought that the condition demanding that the beam must be descending under all operating conditions will meet all requirements and ensure that the present glare problem will be greatly reduced.

In conjunction with this vertical setting of the beam, tests were made with various lateral settings. It was considered that the best driving conditions, with a minimum of glare, were obtained with the left-hand or "on" driving-light directed straight ahead of the vehicle, but with the right-hand or "off" light deflected towards the left so that the centre of its main beam met that of the left-hand light at a distance of 150 ft. in front of the vehicle.

These conditions of vertical and lateral settings of the beams are illustrated by the diagrams submitted herewith.

While much impressed with the results obtained from this lateral setting, the Committee feels that any recommendation as to deflecting the "off" beam in this manner should be left to the discretion of the Council.

Clause (4): Amended to read as follows:—

"Every motor-vehicle, including any trailer, shall be equipped with a tail-light which shows a red light visible at least 300 ft. to the rearward and which is attached at the rear of the vehicle not farther to the left than its centre-line."

The present regulations require the tail-lamp to be placed not farther to the left than the extreme centre-line of the vehicle. The word "extreme" appears unnecessary and is difficult to interpret, and is therefore omitted.

The tail-lamp is also required to be placed as near as practicable to the level of the chassis-frame. On many vehicles it is not practicable to place the lamp at this level, nor does there appear to be any vital reason for fixing it there. This is, moreover, often rather a vulnerable position, especially in the case of a lorry backing into a dock. Consequently the Committee recommends the deletion of this provision.

Clause (5): Amended to read as follows:—

"The registration plate carried on the rear of every motor-vehicle shall be so illuminated as to render the figures and letters thereon clearly visible *at a distance of 60 ft.* by a white light the beams of which are not visible from the rearward."

Two technical officers of the Committee made a series of tests regarding the illumination of number-plates, and their conclusions, which were endorsed by the Committee are as follows:—

"The standard of illumination of number-plates is very low due to the following factors:—

"(*a*) Insufficient candle-power.

"(*b*) Badly placed light with respect to the number-plate.

"(*c*) Angle or spread of the beam of light insufficient to give full illumination of the number-plate.

"Under reasonably good conditions the better colour combinations are legible at distances approximately 120 ft., although from observations made only a relatively small percentage of cars have their number-plates legible at distance of 30 ft., due to the reasons set out above.

"To specify candle-power would also require that all controlling factors affecting the resultant legibility should also be defined, and it is considered that the regulations should require simply that the number-plate be clearly legible at a distance of 60 ft."

Clause (6): Amended to read as follows:—

"Any motor-vehicle may be equipped with not more than *one spotlight* having a movable beam. A spotlight may be used only for purposes or occasions for which the driving-lights are not suitable, and must then be used in a reasonable manner so as not to interfere with the vision of other users of the road."

It is considered that the present permissive provision for two spotlights is unnecessary.

The Committee is further of the opinion that a definition of a spotlight should be embodied in the regulations, such a definition to convey the meaning of a searchlight—*i.e.*, a light projector so designed as to throw an intense narrow beam.

Clause (7): To read as formerly:—

"A fire-engine may be fitted near its longitudinal centre-line and at a height of not less than 3 ft. 6 in. from ground with a lamp capable of displaying a red light to the front of not less than 6 in. in diameter. The said light shall be displayed only while the vehicle is responding to an alarm of fire."

Clause (8): Amended to read as follows:—

"Any lights attached to a motor-vehicle other than those described by the preceding clauses of this regulation or authorized by the Minister in terms of Regulation 10, clause (5) hereof, shall be covered with frosted glass, *a diffusing lens*, or other material which has the effect of diffusing the light, *and except when otherwise herein provided the light displayed by any lamp attached to a motor-vehicle shall be substantially white in character.*"

Clause (9): Amended to read as follows:—

"When the lighting from some other artificial source than the headlights is sufficient to render clearly visible a pedestrian or similar substantial object at a distance of *300 ft. or when the vehicle is stationary, the driver of any motor-vehicle shall use sidelights in substitution for headlights or shall dim or dip the headlights thereof.*"

The effect of this amendment is to increase the visibility distance of 150 ft. as now required, to a distance of 300 ft., and also makes compulsory provision for either sidelights or some form of dimming or dipping devices.

The amendment also provides for driving lights to be dimmed or dipped or sidelights to be substituted when the vehicle is stationery, whether or not there is artificial lighting. All that is necessary in the case of a stationary vehicle is that its position and outline should be visible to other users of the road, and this may best be accomplished by the use of sidelights or dimmed or dipped headlights.

Clause (10): To read as formerly:—

"The lights or any of the lights prescribed by this regulation need not be displayed while the motor-vehicle is stationary on the roadway, provided that the vehicle is lighted from some artificial source so that its position on the roadway is clearly visible at a distance of 150 ft."

Clause (11): To read as formerly:—

"In the case of a motor-vehicle of any of the kinds referred to in Regulation 6 hereof, it shall be sufficient compliance with the requirements of this regulation if such vehicle is provided with at least three lights visible for 300 ft. under normal atmospheric conditions, one at each side of the vehicle, placed so as to display a white light to the front and sides thereof, and one at the rear of the vehicle placed so as to display a red light to the rear thereof and not to be visible from the front thereof, and such lights need not be attached to the vehicle."

References to "Lights" in the Regulations.

The Committee would draw attention to the somewhat loose manner in which the present regulations refer to vehicle-lights. The word "light" is used indiscriminately to denote either the lamp itself or the light emitted from the lamp. It is suggested that where the lamp equipment is referred to, the word "lamp" should be substituted.

Furthermore, it is considered that only one of the terms "driving lights" or "headlights" should be used throughout the regulations.

Colours of Registration-plates.

Tests were made for the purpose of determining the best contrasting colour combinations in order to secure the maximum degree of legibility of registration numbers in this respect. After six colour combinations had been selected as giving good legibility, the manufacturers of the registration-plates were consulted as to which of these combinations caused minimum production difficulties.

As a result the Committee recommends that a cycle of four different colour combinations be established, thus covering a period of four years. The colours recommended are as follows:—

Green figures on a white ground.
Black figures on a yellow ground.
Blue figures on a white ground.
Black figures on a white ground.

Illumination of Number-plates.

The Committee has examined several designs for an improved form of number-plate for visibility at night. The best one of these consisted of a special plate in which the shape of the figures is cut out, enabling them to stand out as luminous numbers by means of a light-source placed behind the actual plate. Certain of the designs gave excellent visibility under both daylight and dark conditions. The designs, however, all require a special fitting to replace the present white light illuminating the rear number-plate, the cost of the fitting, installed on the vehicle, being estimated at 15s. 6d. In addition, the manufacturers of the present registration plates estimate that the new form of plate would cost 1s. 6d. more per plate than the existing plates.

The Committee will therefore make no recommendation in respect of these.

Independent Tail-light.

A device was demonstrated to the Committee by means of which it is impossible to switch out the light illuminating the rear number-plate without stopping and going to the rear of the vehicle to do so. This is claimed to be an advantage in the case of the "hit-and-run" driver who may switch off his lights to avoid identification. The Committee, while approving the actual device, is of the opinion that in view of the cost to the motorist particulars regarding the efficacy of its use should first be obtained before the question is considered of making such compulsory. The Transport Department is making the necessary inquiries from Great Britain in this connection.

"Pass Lights."

The British regulations require that headlamps shall be—

(i) Permanently pointed downwards; or
(ii) Capable of being deflected downwards; or
(iii) Capable of being deflected both downwards and to the left; or
(iv) Of the double-filament type in which the main driving filament goes out, and another, pointing downwards, comes on; or
(v) Of the dip and switch type, by which one lamp goes out, and the beam of the other is deflected downwards, or both downwards and to the left.

A demonstration was recently given in Wellington illustrating the effect of the application of these methods in passing other vehicles. In addition, a vehicle equipped with a centrally placed lamp set low in the front of the vehicle was demonstrated. When passing another vehicle the headlights were switched off and replaced by sidelights and the centrally placed "pass light." The effect of these methods in eliminating glare was good, and the Committee recommends that the Council might consider, in conjunction with the question of deflection of the off light to the left, a provision in clause (2), Regulation 7, of the Traffic Regulations permitting driving with sidelights only when an approved central "pass light" or "pass lights" are operative.

G. L. Laurenson, Chairman.

[Adopted by the Council.]

LIGHTING OF HIGHWAYS.

I have to report as follows regarding the question of the artificial lighting of highways at night.

The Committee is agreed that adequate lighting of the heavily trafficked routes outside municipalities is eminently desirable for purposes of safety.

The annual report of the Transport Department presents figures regarding fatal accidents which show that during the past seven years 567 accidents, or 48·5 per cent. of the total of 1,171, occurred during hours of dusk or darkness. During these hours, however, it is found that the volume of traffic using the highways is only one-fifth of the volume during the daylight hours. It is thus seen that the accident hazard at night is almost five times as great as the daylight hazard.

This conclusion compares very closely with that reached in America, where it has been found that although the night traffic was only one-fourth of the traffic during the daylight hours, over half of the number of accidents occurred at night.

In cities and on highways in the United States of America and in Great Britain, where adequate illumination has been provided, the accident rate at night has immediately dropped to an amazing extent. Instances where highway lighting accomplished this reduction in the accident rate are too numerous to quote. One striking example, however, is on the Mount Vernon Highway, Washington, D.C., where the number of accidents during hours of darkness was 2·5 times as great without highway lighting as with it.

With a lighting system which provides conditions of visibility comparable to daylight, there appears no reason why the night hazard should exceed that during daylight—*i.e.*, the accidents throughout the whole twenty-four hours either day or night would be approximately in proportion to the volume of traffic. In New Zealand this would represent a reduction of 32 per cent. in the total accidents. In other words, an annual saving of over fifty lives and 1,600 other accidents causing personal injury might be expected if all roads and streets were adequately lighted.

The Extent to which Highway Lighting should be adopted.

For financial reasons it is manifestly impossible to provide suitable lighting on all roads. The Committee considers that the highways outside the cities and larger municipalities should be illuminated where the motor-traffic exceeds a certain daily volume. It is suggested that under

average conditions it would be economic to light a highway when the daily traffic volume reaches 2,500 vehicles. This figure is based upon rather scanty data regarding the economic loss due to accidents and also the relation between the number of accidents and the traffic density. The conclusion derived from this data suggests that the cost to the community represented by the loss of earning-power, medical expenses, and the property damage incurred by accidents, amounts to a figure in the vicinity of ¼d. per vehicle-mile. This is based largely on American statistics, which may not be strictly applicable in New Zealand. However, the figures supply a means of indicating to a very approximate degree when it is economic to incur certain expenditure upon the elimination of accident hazards.

It may be mentioned that among other factors the volume of motor traffic which may influence the question of the desirability for night illumination are the volume of cyclist and pedestrian traffic. Apart from the strictly economic viewpoint there is the human side of the problem represented by the suffering and sorrow which inevitably accompanies accidents, and the strain upon drivers and consequent bodily and mental fatigue caused through night driving under inadequate conditions for seeing. The Committee therefore feels that it is desirable to light as many of the denser traffic routes as possible for the purpose of preventing accidents caused through lack of seeing ability, and for the general benefit of the road-user.

From the most recent traffic records it is found that the only highways outside of the cities and larger boroughs where the traffic exceeds 2,500 motor-vehicles daily are—

(i) The Hutt Road from Thorndon to Petone (5,800 vehicles daily).
(ii) The Great South Road from Auckland to Otahuhu (2,700 vehicles).

This represents a total length of about sixteen miles, which would be lighted if the Committee's recommendations are adopted. The only other highways where this volume is at present approached are the Great South Road from Otahuhu to Papakura, and the Christchurch–Dunedin Main Highway from Christchurch to Sockburn.

The Type of Lighting.

The various available types of light sources are :—

(i) Electric filament lamps ;
(ii) Electric gaseous-discharge lamps—
  (*a*) Mercury-vapour type.
  (*b*) Sodium-vapour type.

The electric filament lamp is the common type of household and street lamp emitting a white light. The mercury-vapour lamp emits a bluish-coloured light and is the type to be seen in use at night in Lambton Quay, Wellington. The sodium-vapour lamp gives a soft yellow light, and the first major installation of this type in New Zealand was recently inaugurated on a length of highway in Devonport, Auckland.

The gaseous-discharge type of installation, either mercury or sodium, gives a much greater degree of illumination for the same expenditure of current than does the filament type. The cost of the lamps in New Zealand is, however, much greater in the case of the gaseous-discharge type.

After carefully considering the information available it appeared to the Committee that the most suitable form of illumination in the case of highways outside of shopping areas is provided by the sodium type of electric-discharge lamp. This light produces no glare and lights up the road surface in such a manner that all objects ahead may be clearly discerned in silhouette against a lighted background. Owing to the monochromatic nature of the light, there are no colour contrasts, and on this account, unless modified by the presence of other lights, which neutralize the yellow effect, sodium lighting is not suitable in shopping areas.

The Standard of Lighting.

Expressed in non-technical terms, the minimum standard of lighting which in the opinion of the Committee should be provided on the highways should be such that drivers may proceed with safety at a reasonable speed without the use of headlights.

With a sodium installation such a standard of illumination may be attained with lamps of not less than 100 watts, the spacing between lamps to be from 2 chains to 150 ft.—*i.e.*, thirty-five to forty lamps to the mile.

The Cost of Lighting.

The initial cost of installation may be assumed to vary from £600 to £800 per mile according to local conditions.

The annual charges for operating the system from dusk to half an hour after midnight, including interest on the first cost and the provision of a sinking fund, should in no case exceed £300 per mile, and will generally be little over £200.

It is considered uneconomic, in view of the very small amount of traffic normally using the roads after midnight, to continue to operate the lights later than 12.30 a.m.

Duty on Highway Lamps and Fittings.

At the present time there is a very heavy duty payable upon the gaseous-discharge lamps and fittings used in this country. In view of the national importance of the benefits to be derived from a system of adequate lighting the Committee recommends that the Customs duty on lamps of the gaseous-discharge type, together with the fittings and equipment used in connection therewith, be removed or reduced to a nominal amount.

The Committee feels that, with this item of the cost substantially reduced, local authorities would be encouraged to proceed with the installation of lighting where it would otherwise be financially impossible.

It is pointed out that at present the use of this type of equipment in New Zealand is very limited, and there would thus be very little loss to the Government in revenue.

Financial Responsibility for Lighting.

The highways which would come within the scope of the lighting proposals are in general of a national character, and their illumination is a question vitally affecting all road-users. It is manifestly impossible for many of the small local authorities to finance wholly such a system of modern lighting as is proposed, and if left to shoulder this responsibility the probable result would be no lighting, or a poor lighting system which is proved to be frequently productive of greater hazards than no lighting. It is consequently the opinion of the Committee that this facility should be provided mainly by the Government. Only a comparatively small contribution—say, to the extent of their present expenditure on lighting—should be made by the local authorities through whose districts the arterial road passes.

Lighting of City and Municipal Streets.

While this phase of the lighting question is possibly not strictly within the province of this Committee, it is considered desirable for purposes of road safety to urge that every endeavour be made to provide an adequate standard of street-lighting.

The Committee recommends that street-lighting be generally improved to a standard at least equal to that proposed for highways, and that the order of precedence be largely determined by the volume of traffic carried by the streets.

Summary of Conclusions and Recommendations.

(1) That the night-accident hazard is five times as great as during daylight and that the obvious reason for this is the lack of adequate "seeing ability."

(2) That the only satisfactory means of providing adequate visibility and reducing the heavy night-accident rate on the highways is by a properly designed system of artificial illumination.

(3) That highways where the traffic exceeds 2,500 motor-vehicles in twenty-four hours should be illuminated at night.

(4) That wherever possible other highways carrying a very large volume of traffic or where the night-accident rate is heavy should similarly be illuminated.

(5) That the most suitable type of lighting on highways outside of shopping areas appears to be the sodium type of electric gaseous-discharge lamp.

(6) That the minimum standard of illumination required is such as would permit safety in driving at a reasonable speed without using headlights.

(7) That this standard may be achieved with a minimum of 100 watt sodium lamps spaced at thirty-five to forty lamps per mile.

(8) That the cost of installation of such lighting would be £600 to £800 per mile, and the annual charges £200 to £300 per mile.

(9) That lighting is unnecessary later than 12.30 a.m.

(10) That the duty on gaseous-discharge lamps and fittings for highway and street-lighting should be removed.

(11) The Committee's recommendation would mean a capital expenditure of approximately £12,000 and an annual expenditure of £3,200.

(12) That the cities and other municipalities be urged to provide street-lighting of a minimum standard equal to that proposed for highways, and that the major traffic streets be considered first.

G. L. Laurenson, Chairman.

[Adopted by the Council.]

ROAD CONDITIONS.

I have to report that the Road Conditions Committee, after studying available data regarding accidents where faulty road conditions were a contributory factor, has framed certain recommendations for the consideration of the Council.

It will be seen that these recommendations refer mainly to a number of existing road hazards to which it is felt that the attention of road-controlling authorities should be drawn, and also to the respective remedial measures which the Committee is of the opinion should be taken to lessen or remove these hazards.

It is suggested that the Council should recommend that the Minister circularize the local authorities regarding these matters.

The recommendations are as follows:—

(1) *Protective Fences.*—In view of the comparatively large proportion of "over-the-bank" accidents, it is strongly recommended that a suitable form of protective fence be provided at such bends and other places on hill roads where the consequences of a vehicle leaving the road might be serious. These fences should have white posts and should, furthermore, be of a design approved by the Main Highways Board.

The Main Highways Board has estimated the cost of fencing in necessary places on the highway system at £80,000. The Committee suggests that the Board be approached with a view to expending £20,000 annually on this work during the next four years.

(2) *Footpaths.*—In a number of localities adjacent to centres of urban population and seaside or other holiday resorts it is considered desirable that the volume of pedestrian traffic be ascertained, in order that the need for provision of footpaths may be determined.

Frequently where footpaths are provided already the standard of construction or maintenance is so poor that pedestrians prefer to risk using the main roadway. The need for proper maintenance of footpath surfaces to a good standard should be stressed.

(3) *Visibility at Intersections.*—Although a large number of the many accidents occurring at intersections are undoubtedly due to failure of the motorist to give way, the Committee recommends that attention of road-controlling authorities be drawn to the need for removal of unnecessary or potentially dangerous obstructions to vision at these points, such as trees, high hedges, fences, and advertising signs, &c.

(4) *Super-elevation on Curves.*—It was pointed out that in the case of non-permanent surfaces such as gravel, macadam, pumice, &c., the correct super-elevation may be built up and maintained by the ordinary process of maintenance grading. This is considered worthy of mention in circularizing the local authorities.

The Committee also suggests that the Main Highways Board be requested to ascertain the cost of providing proper super-elevation on the highway system.

(5) *Loose Shingle.*—The danger of heavy loose shingle on roads generally and in particular at bridge approaches is stressed by the Committee. Quantities of loose metal in excess of the depth that may be expected to bind readily should be avoided. Also the practice during grading of leaving a windrow of gravel in the centre of the road for longer than is absolutely necessary should be strongly deprecated.

(6) *Slippery Surfaces.*—The provision of "sand-paper" bituminous surfaces should be advocated, and where bituminous or sealed surfaces have become smooth suitable treatment should be applied. This is particularly applicable to many urban streets where frequently the original permanent surfacing was carried out prior to the introduction of the more modern methods of bituminous construction.

The main cause of skidding is considered to be an excess percentage of bitumen, so that any type of bituminous surfacing which carries less than 7 per cent. or 8 per cent. of bitumen in the aggregate is fairly satisfactory. There does not appear to be much trouble on the more recent types of construction on main highways.

The question of tires worn smooth should not be overlooked. Generally the cost of tires is not a large proportion of the cost of motor-vehicle operation and it is doubtful economy to allow tires to wear down almost to the fabric. It appears that in the interests of safety smooth tires should be prohibited.

The tire-manufacturer generally is co-operating in producing a non-skid tire, but his efforts are nullified when the pattern is worn completely off the tread.

(7) *Colour of Bituminous Surfaces.*—The Committee suggests that the Main Highways Board be requested to investigate the possibility of improving the colour of black surfaces for night driving by the introduction of light-coloured aggregates where these are available.

The Wellington City Council is in this connection making an investigation regarding the use of aluminium powder in the mix.

(8) *Snow on Road Surfaces.*—Wherever applicable, local authorities should be urged to carry out promptly the removal of snow from the road surfaces.

(9) *Planking on Timber Bridges.*—The potential danger of longitudinal running planks—*i.e.*, planks extending over strips of the bridge surface only—is stressed. The Committee recommends that these should extend over the full width wherever possible the alternative being their complete removal.

(10) *Painting Bridge Handrails and Approach Fences.*—Road-controlling authorities should adopt a strict policy of painting and maintaining the visibility of these for the safety and convenience of the road user.

(11) *Marking the Edges of the Road.*—On curves or on dangerous sections where conditions render this necessary—*e.g.*, hilly road subject to fog—some system of indicating the edges of the roadway should be adopted. It is suggested that the Main Highways Board should recommend the various methods by which this may be effected, such as disks or posts, white side-lines, &c.

(12) *Centre-line Markings.*—These should be painted on all curves on dustless surfaced roads where visibility is restricted as it is considered by the Committee to be of great assistance in the promotion of safe driving. These should extend for at least the full length of the curve, but it is, however, thought undesirable that the white lines should in general be adopted on straights.

(13) *Signs where Road is under Construction.*—Although possibly not entirely within its province, the Committee wishes to draw attention to the necessity for provision of proper "Warning" or "Caution" signs indicating that roadworks are in progress. More precise attention should be devoted by road authorities to the wording and placing of these signs and to their prompt removal when the need for special caution no longer exists. A greater degree of uniformity in the type of sign adopted is desirable, and guidance to local authorities in this respect might be given by the Main Highways Board.

(14) *Safety Barriers at Schools.*—The erection of these is in progress and is commended by the Committee. It is considered that these should be provided at the exits from all school-grounds, and possibly in certain cases of Sunday Schools.

(15) *Railway Level-crossings.*—The Government has announced a programme for the progressive elimination of 250 level-crossings on the main highways at a total estimated cost of £1,750,000. While these crossings represent only one-tenth of the total number in the Dominion, their elimination will remove this hazard for over 60 per cent. of the total rural traffic. The committee is of the opinion that, after the elimination of these is accomplished, a more modified programme might be considered

regarding the remaining crossings. When compared with the fatal accidents recorded through other road dangers it is found that the railway-crossing hazard does not bulk so large as might be expected, and, with the elimination of 250 of the most heavily trafficked and consequently potentially dangerous crossings, will not be such a predominant factor in accidents.

In view of the high average cost of separating the grades it is recommended that the Main Highways Board be requested to investigate thoroughly the possibilities and costs of other protective measures for dealing with this problem. In this connection the Main Highways Board is now endeavouring to secure particulars of a certain protective device which appears to have good possibilities.

(16) *Statistics regarding the Road Factor.*—The final recommendation of the Committee is in regard to the urgent need for a comprehensive system of statistics from which may be determined the relative economy of the various measures to be taken in making the roads safe. From the accident records also, a system of spot maps should be kept and the exact locality of accidents marked thereon, and in this way the danger points would readily be identified and protective measures effected.

Attached to this report is a copy of a table compiled by the Transport Department which analyses past records of fatal accidents where it was considered that the road factor contributed in some manner or to some degree to the accident.

J. Wood, Chairman.

[Adopted by the Council.]

Fatalities and other Serious Accidents from January, 1930, to August, 1936 (inclusive), in which Road Conditions were a Contributory Factor.

Type of Accident.	Primary or Contributory Factors in Accident.																	Totals.	Percentage of Total.
	Road intersection.	Railway-crossing.	Rough Road-surface.	Slippery Road-surface.	Loose Metal.	Narrow Road Width.	Steep Grade.	High Road-crown.	Inadequate Sight Distance at Crests.	Visibility affected by Trees, Hedges, &c.	Curve a Factor.	Bridge-approach.	Slippery Bridge-surface.	One-way Bridge.	Failure of Bridge.	Blockage by Slip.	Failure of Road-shoulder.	Position of Tram-line.		
Vehicle overturned ..	..	..	11	16	21	2	2	..	..	..	10	..	..	..	..	..	..	..	62	14·8
Vehicle over bank	..	..	3	5	10	9	5	..	1	..	34	8	3	..	3	1	2	..	84	20·1
Collision—																				
Two motor-vehicles ..	91	..	..	3	6	1	1	..	2	1	41	1	1	2	..	..	..	..	150	35·9
Motor-vehicle and train ..	..	45	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	45	10·8
Motor-vehicle and horse vehicle	4	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	5	1·2
Motor-vehicle and pedestrian	5	..	..	1	..	..	..	..	..	..	2	..	..	..	..	..	..	..	8	1·9
Motor-vehicle and stationary object	..	1	1	1	1	..	4	..	..	..	6	1	1	..	..	..	..	..	16	3·8
Motor-vehicle and tram ..	3	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	5	1·2
Motor-vehicle and cyclist ..	34	..	..	1	..	..	2	..	..	..	6	..	..	..	..	..	..	..	43	10·3
Totals	137	46	15	27	38	12	14	..	3	1	99	10	5	4	3	1	2	1	418	100·0
Percentage of total ..	32·8	11·0	3·6	6·5	9·1	2·9	3·3	..	0·7	0·2	23·7	2·4	1·2	1·0	0·7	0·2	0·5	0·2	100·0	..

Note.—The number of accidents in which the road was a factor represents 36·9 per cent. of total of 1,135 recorded accidents during the above period.

TRAFFIC LAWS.

I have to report that the above sub-committee met on the 4th November, and gave detailed consideration to the Draft Traffic Regulations and the numerous comments concerning them which have been received.

As a result the sub-committee made many suggestions for amendment of the draft, which is now placed before the Council with these amendments incorporated. The main alterations are as follows :—

Regulation 4 : General.—Clause (2) has been redrafted as shown.

Clauses have been added as to general requirements. The principal ones relate to compliance with traffic-control lights and stopping or parking requirements for all vehicles.

Regulation 5 : Offences.—The penalty clause is widened. It is also recommended to the Council that the maximum penalty for pedestrians be increased from 5s. to a higher sum.

Regulation 7 : Lights.—This was revised by the sub-committee on lighting, and therefore was not considered by the Traffic Laws Sub-committee.

Regulation 11 : Motor-vehicle Inspection.—It is recommended that the date for issue of Warrants of Fitness be extended, that the approved issuing firms be required to erect a prescribed sign, and that the Minister make an announcement that inspection of vehicles by private firms is a temporary measure, pending its being taken over by the Government and local authorities.

Regulation 12 : Loading and Dimensions.—(1) A maximum height of 14 ft. is suggested.

Regulation 13 : Towing.—Omit words *re* duplication of towing connection.

Regulation 14 : Rules of the Road.—(1) Redrafted as shown.

(2) It is suggested that the Council consider prohibiting trams being overtaken on the right.

Regulation 21: Equipment.—The suggestion has been incorporated that all bicycles have a white rear surface, whether tail-light is fitted or not.

Former Pedestrian Regulations 28 (keeping to right), 30 (duties after descending from tram), and 33 (keeping lookout while crossing roadway) have been omitted, as it is suggested that they be incorporated in the form of advice in the Highways Code.

General.—New provisions proposed are prohibition of overtaking at intersections or unless 300 ft. clear view, driver's signals for right turns and stop, and prohibition of passing stopped trams going same way.

It is proposed that from the date of issue of the regulations three months be permitted for fitting windscreen wipers and one month for fitting other new equipment.

As soon as the scope of the Traffic Regulations has been finalized, a Highways Code, explaining requirements in simple language and containing supplementary advice, will be prepared and submitted to the Council.

On behalf of the Traffic Laws Sub-committee,

G. L. Laurenson, Chairman to Sub-committee.

[Adopted by the Council with following additional recommendations: Maximum penalty of £2 for pedestrians; tail-lamps to be visible at 60 ft.; passing of trams to be left as at present; only one spot-light be permitted; pedestrians be required to keep as far as practicable to the right when walking along roadways.]

ACCIDENT STATISTICS.

I have to report as follows regarding the progress made by the Statistics Committee:—

In the first place the Committee realizes the value of adequate and comprehensive statistics being kept in order to determine the relative importance of the contributory causes of accidents as a basis for—

(1) Devising the appropriate means for their prevention; and

(2) Ascertaining the efficacy of the various protective measures taken.

The question then arises as to what statistics should be collected for analysis and the means of collecting them.

For this purpose accidents may be grouped as follows:—

(1) Accidents involving personal injuries—
  (*a*) Fatal:
  (*b*) Non-fatal.

(2) Accidents which do not involve personal injury but involve damage to property—
  (*a*) Vehicle insured under a comprehensive policy:
  (*b*) Vehicle not insured.

Personal Injury Accidents.

While there is at the present time legislation providing that if a motor accident involves injury to any person it shall be reported to the police, this information is not statistically recorded on a standard basis. Records of fatal accidents only are at present compiled and analysed as to causes, and these do not provide a sufficient number of cases to be of adequate statistical value. The Committee feels that the information which is now secured by the police in respect of all cases of personal injury would, if made available, provide a basis for comprehensive records of all such accidents.

Complete records of this class of accident would enable definite comparisons to be made regarding the accident rate by reason of the fact that a certain definite class of accident would be recorded. There would also be a sufficient number of cases upon which to base remedial measures and to gauge their effect.

The Committee therefore recommends that the co-operation of the Police Department be sought with a view to undertaking the reporting of accidents to the Census and Statistics Department for compilation and analysis of causes. The Commissioner of Police has expressed his willingness to assist in this matter as far as possible, and there appears no reason why a suitable system on these lines might not be introduced at an early date.

Form of Accident Report.

The Committee has examined carefully the various data which it is proposed to secure in regard to each accident, and the attached accident report form has been evolved. This form is based partially upon a form proposed some years ago and also upon the report form adopted generally in the United States of America. The information asked for on the form conforms with the recommendations regarding accident statistics made by the Conference of Statisticians at Ottawa, 1935.

It is recommended that, subject to the endorsement of the police, the form submitted with this report be adopted.

The procedure to be followed in the case of an accident involving personal injury would be:—

(1) The driver would report the accident to the nearest police-station (as now required by law).

(2) The police would fill in as completely as possible the data required by the form. (In some cases this may not be finalized until legal proceedings, if any, are completed).

(3) The form would then be forwarded by the Police Department to the Government Statistician for compiling accident records and analysis of contributory causes.

ACCIDENTS WHICH DO NOT INVOLVE PERSONAL INJURY, BUT INVOLVE DAMAGE TO PROPERTY.

The Committee has made a preliminary investigation of the possibilities of securing data in regard to accidents where no personal injury occurs, but where a vehicle or other property is damaged.

There is no statutory authority by which drivers might be compelled to give information regarding accidents where there is no personal injury. Moreover, reports of accidents furnished by the motorist would be apt to contain inexact information and it would generally be impossible to check their accuracy.

The only present means whereby information regarding these accidents would be available is through the various insurance companies. However, it is ascertained that only a little over 40 per cent. of the total number of licensed vehicles are insured under comprehensive policies, and consequently the insurance companies would handle only a proportion of this class of accident.

Furthermore, in the case of the majority of claims, the companies would not have sufficient data to supply all the desired information. It was also felt that the owner of an uninsured vehicle possibly represented a different psychology and that the data obtained from accidents involving insured vehicles only might not be representative of all accidents.

The Committee therefore makes no recommendation to the Council at this stage regarding accidents involving damage to vehicles, but recommends that the collection of statistics should at present be confined solely to those accidents involving personal injuries.

J. H. JERRAM, Chairman.

[Adopted by the Council subject to the returns being presented in the first place to the Transport Department.]

Approximate Cost of Paper.—Preparation, not given; printing (1,570 copies, including graphs) £90.

By Authority: E. V. PAUL, Government Printer, Wellington.—1937.

Price 1s. 3d.]