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FOREWORD

This bulletin contains summaries of the replies received by the Association to a questionnaire (Data Sheet No.430) entitled, "Bus Operations", sent to all electric railways having motor bus operations. The questionnaire called for detailed information relating to the revenues, expenses and operating statistics of bus operations for the calendar years 1932 and 1931.

Replies were received from 189 bus undertakings whose operating revenues represent approximately 82 per cent of the total bus revenues of the industry. These reports have been classified according to types of service rendered Viz: (1) companies operating city lines exclusively; (2) companies operating interurban lines exclusively and (3) companies operating both city and interurban lines and for which a complete segregation as between these two types of service was not available.

INVESTMENT IN PLANT AND EQUIPMENT

This edition of this bulletin contains data on investment in plant and equipment and capital turnover. This information is given for a group of 72 city companies, 14 interurban companies and 33 combination city and interurban companies, a total of 119 companies. A summary for these three groups is also shown.

COMPARATIVE UNIT FIGURES AND DERIVED RATIOS

Comparative unit figures and derived ratios have been included for only the exclusively city and exclusively interurban groups. The basic figures from which these unit figures and ratios are derived are included for all groups.

DETAILED OPERATING EXPENSES

The analysis of expenses has been confined to the exclusively city and the exclusively interurban groups only, since the expenses of the companies operating both types of service would be merely averages of the other two varying directly according to the proportions in which the two types of service happened to be represented in the group. Separate revenue statements and operating statistics are given for each group analyzed.

ANALYSIS OF ELECTRIC RAILWAY BUS OPERATIONS, 1932.

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American Transit Association

The expansion of electric railway bus operations which has been going on without interruption since 1920, and, as pointed out in this story last year, which continued through the depression years 1930 and 1931, was suspended in 1932. There was actually a slight decline in the volume of bus operations compared with 1931. As reported by 189 electric railway bus undertakings, representing about 82.5 per cent of all electric railway bus operations, both the number of buses owned and the miles of route were somewhat less than in the previous year. The investment in bus operations was not reported by all of these companies, but 119 of them reported their total bus investment in 1932 as being more than four million dollars less than in 1931.

All of the shrinkage in operation occurred in the intercity field. There was still some further expansion of city bus operations, although it was extremely small - 49 more buses and 202 more miles of route, the percentage increases being 0.96 per cent and 4.80 per cent respectively. As against this the interurban companies in the group reported a decrease of 1.15 per cent in the miles of road over which their buses run, a decrease of 5.07 per cent in the number of buses owned or leased, and 6.85 per cent decrease in the number indaily operation. Competition among the railroads, the independent bus operators and private automobiles, in addition to the electric railways, makes intercity bus operations a precarious enterprise during the depression.

RESULTS OF OPERATION

The number of revenue passengers carried in 1932 was 4.50 per cent less than in 1931, a very moderate decrease when the conditions prevailing throughout 1932 are taken into consideration. Operating revenue, however, was down 10.13 per cent, reflecting the effect of decreases in fares, principally in the form of reduced ticket and taken rates and the introduction of various forms of passes.

Operating expenses were reduced by only 8.57 per cent, or less than the reduction in revenue. One reason for this was that in spite of the lower traffic, service as measured by the number of bus miles operated, was increased 0.52 per cent. This increase in service reflects principally the extension of bus service on some properties, and the complete substitution of buses for rail service in a few instances, rather than increases in service on pre-existing routes. Service has been reduced and buses taken off on slack lines at the same time that further substitutions of buses for rail service have been made on other lines. Thus a basic service has been inaugurated in one place while service has been trimmed in other places, the net result being an increase in the total mileage operated.

6.83 per cent. Operating expense per bus mile was reduced 10.83 per cent on the city lines and only 5.07 per cent on the intercity lines. The respective costs in 1932 were 19.18 cents per bus mile for the city buses and 17.62 cents for the intercity buses.

As a result of this inability on the part of the intercity bus lines to reduce their expenses in proportion to the loss in their revenues, their operations for the year resulted in a deficit after operating expenses. Their operating ratio was 102.55 per cent in 1932. In 1931 it had been 93.70 per cent.

The operating ratio of the city buses was 93.53 per cent in 1932 as against 92.72 per cent in 1931. They were thus able to counteract in large measure the effect of declining traffic, and their loss in net operating revenue was held down to 17.81 per cent. Nevertheless it appears from the statement of the city companies reporting taxes, given at the bottom of Table III, that the city companies as a group also failed to earn their operating expenses and taxes.

As has already been pointed out it is apparent from Tables III and IV that city bus operations were still growing and expanding in 1932 while intercity bus operations were definitely contracting.

The taxes paid by the city and intercity lines that reported them are shown in separate statements at the foot of their respective tables. The taxes of the city lines increased 4.18 per cent while those of the intercity lines dropped 2.40 per cent. But the intercity taxes increased from 12.88 per cent of their operating revenues in 1931 to 16.59 per cent in 1932, while for the city lines the increase in per cent of revenue was only from 7.38 per cent in 1931 to 8.52 per cent. Taxes amounting to more than 16 per cent of the revenues of companies that are not earning their operating expenses constitute a serious burden, the imposition of which seems to be of doubtful expediency.

DETAILS OF OPERATING EXPENSES

Details of operating expenses of 48 city companies and 12 interurban companies are given separately in Tables VI and VII. These are all of the exclusively city and exclusively intercity companies that reported the detail of their expenses. Some of the mixed city and intercity companies also reported their expenses in detail, but they are now shown because they are not representative of any fixed type of operation, being merely averages of city and intercity operating costs weighted according to the proportion in which each type happens to be present in the group.

A comparison of Tables VI and VII gives a fairly good indication of why the intercity buses failed to reduce their operating expenses to the same extent as the city buses. In general, it was the administrative expenses of the intercity bus lines which were not reduced; in fact, they were increased substantially. In view of the conditions obtaining throughout the year it seems reasonable

As a result of the smaller decrease in expenses compared with revenues there was a very snarp falling off in the net operating revenue amounting to 25.33 per cent.

Information reported on taxes was not complete. For instance, out of the 189 companies that reported, only 96 were able to report their full taxes. In the cases of most of the other companies taxes were paid jointly on rail and bus operations and no separation of the bus taxes was available.

Taxes reported by the 96 companies amounted to \$2,771,328 in 1932 as against \$2,661,871 in 1931, an increase of 4.11 per cent. In 1932 they amounted to 9.0 per cent of the operating revenue while in 1931 they amounted to only 7.9 per cent of the revenues. The increase was due partly to the actual increase in taxes paid and partly to a decrease of 8.58 per cent in the operating revenues. After payment of taxes the operating income of these companies amounted to only \$38,728, a decrease of 93.14 per cent from the operating income of \$564,336 in 1931.

In this connection it is worth pointing out that the results of operation of these 96 companies reporting taxes were somewhat better than those of the larger group of 189 companies. Their net operating revenue showed a decrease of only 12.90 per cent compared with a decrease of 25.33 per cent for the larger group. Assuming that the taxes paid by the 96 companies are representative of the taxes paid by all bus companies, it is probable that the bus operations of electric railways as a whole resulted in a deficit after taxes in 1932. In other words, in that year they did not earn their operating expenses and taxes.

CITY AND INTERCITY OPERATIONS COMPARED

In Tables III and IV the results of operation of companies operating exclusively city and exclusively interurban service are shown separately. It will be seen at once that the city lines made much the better showing. Their revenue passengers decreased only 3.23 per cent as compared with a decrease of 5.02 per cent on the intercity lines.

Revenues on the city lines were down only 7.63 per cent while on the intercity lines they were down 14.77 per cent. The average revenue per revenue passenger, practically the average fare, on the city lines was 4.58 per cent less than in 1931. On the intercity lines it was 10.25 per cent lower. Reductions in fares were undoubtedly responsible in both cases, but on the intercity lines it is also possible that the average distance traveled by passengers was shorter than in 1931.

The intercity companies were not able to reduce their operating expenses in the same proportion as the city companies. Although they reduced the number of bus miles run by 1.77 per cent their operating expenses were down only 6.72 per cent, while the city companies, in spite of the fact that they increased their bus mileage 4.49 per cent, were able to reduce their operating expenses

to conclude that a larger proportion of the total administrative expenses of the combined railway and bus systems was allocated to the intercity bus lines in 1932. In other words, in the intercity field the buses were made to carry a larger part of their own overhead expenses. The reason for this is to be found in the operating results of the interurban railways themselves in 1932. Most of them incurred heavy deficits from their own operations and, therefore, were not disposed to absorb any more of the bus expenses than they had to.

Aside from this item of administrative expenses the trends of expenses of the two types of operation did not differ materially. The cost per mile for maintenance, including retirement expense, was reduced 10.39 per cent by the city lines and 11.28 per cent by the intercity lines. However, the intercity lines made a reduction of 6.02 per cent in their charge for depreciation of buses while for the city lines the reduction was only 2.97 per cent. This was offset by a reduction of only 14.59 per cent in "all other maintenance expenses" on the part of the intercity lines as against a reduction of 19.46 per cent in the same account for the city lines. "All other maintenance expenses," of course, includes the supervisory and administrative expenses of the maintenance department.

Operating garage expense was reduced 6.92 per cent per bus mile by the city buses and 7.17 per cent by the intercity buses. The agreement in these figures is accidental, however, The largest item in this account is the cost of fuel. For the city lines the cost of fuel decreased 1.52 per cent per bus mile while on the intercity lines it dropped 3.87 per cent; on the other hand the cost per bus mile for lubricants remained unchanged on the intercity lines, whereas on the city lines it decreased 18.18 per cent.

Transportation expenses were reduced 11.43 per cent by the city lines and 1.61 per cent by the intercity lines. This striking difference in the reductions in the heaviest item of operating expense is due to an increase of 38.46 per cent in "all other transportation expenses", which includes supervisory and administrative expenses, on the part of the intercity lines, while the city lines reduced this account by 11.64 per cent. Insofar as wages of drivers, conductors, helpers, etc. are concerned, the intercity buses reduced these items, the heaviest in the account, by 16.17 per cent per bus mile as against a reduction of only 10.46 per cent by the city lines.

Administrative and general expenses of the city lines were reduced 17.53 per cent, but on the intercity lines they increased 13.99 per cent. Administrative expenses alone increased 20.00 per cent on the intercity lines, while they decreased 9.38 per cent on the city lines. Although the cost of injuries and damages and insurance on the intercity lines were reduced 15.85 and 21.05 per cent respectively, the total of "other general expenses" in which they are included increased by 10.14 per cent. This was due to an increase of 61.70 per cent in the general expenses other than injuries and damages and insurance. On the city lines injuries and damages decreased 24.33 per cent; insurance, 15.79 per cent; and "all other general expenses" decreased 18.46 per cent.

INVESTMENT DATA

Of the 189 companies that reported, 119 gave information on their investment in bus plant and equipment. These investment figures together with some interesting derived data are summarized in Table I.

The whole group of 119 companies owned or leased 5,232 buses on December 31, 1932 and their total investment in bus plant and equipment on the same date was \$57,591,596. On December 31, 1931 the same companies had 5,474 buses and their total investment was then \$61,788,892. This represents a decrease of 4.42 per cent in the number of buses and 6.79 per cent in the total investment. The revenues of these companies dropped from \$41,397,523 in 1931 to \$35,196,287 in 1932, or a decrease of 14.98 per cent.

The average investment per bus at the end of 1932 was \$11,008, and the average revenue per bus for the year 1932 was \$6,727. The ratio of the investment at the end of the year to the revenue for the year was 163.63 per cent. This would indicate a capital turnover of once in 1.64 years. As the number of buses as well as the investment was decreasing during the year, the actual rate of turnover was probably a little slower than this, that is, slower than once in 1.64 years. The rate of turnover has been decreasing steadily since the depression set in, due principally, of course, to the shrinking revenues. Thus the 1931 rate indicated in Table I is once in 1.49 years. In 1929 it was 1.17 years.

The 119 companies reporting investment have been classified in Table I into 72 exclusively city companies, 14 exclusively intercity companies and 33 companies giving both city and intercity service. Separate investment figures are given for each. An interesting fact brought out in this break-down is that the investment per bus is somewhat larger for the city lines than for the intercity lines, and the rate of capital turnover somewhat slower. This is probably due to the fact that the city lines have a larger investment in property other than the buses themselves. City properties frequently have large fleets requiring separate garages and shops, while interurban fleets are usually comparatively small and often do not require any extra housing or shop facilities.

PART I

ANALYSIS OF ELECTRIC RAILWAY BUS OFERATIONS

CALENDAR YEARS 1932 AND 1931

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NOTE: This part of the bulletin comprises an analysis of the combined reports of those companies for which comparative statistics were available. The tables are subdivided as follows:

- (a) Investment Buses Capital Turnover
- (b) Financial and Operating Statistics 1932 and 1931
 - (i) Summary 189 Companies
 - (ii) 123 City Companies
 - (iii) 19 Interurbans
 - (iv) 47 Combination City and Interurban Companies

TABLE I

- INVESTMENT - BUSES - CAPITAL TURNOVER RELATION OF THE NUMBER OF BUSES OWNED AND THE ANNUAL BUS OPERATING REVENUE TO THE TOTAL INVESTMENT IN BUS PLANT AND EQUIPMENT CALENDAR YEARS 1932 AND 1931

		ITY LINES	INTERURBAN LINES 14 COMPANIES			
	1932	1931	% Inc. or (D) Dec.			% Inc. or (D) Dec.
Investment in Plant & Equipment Total Bus Operating Revenue No.of Buses Owned or Leased	334,638,569 320,964,580 3,208	\$22,986,215	1.27 (D) 8.80 3.48	ょ 1,279,809 う 993,563 141	\$ 968,123	2,63
Investment per Bus	\$ 10,798 165.22%		(D) 2.14 11.03	3 9,077 128.81%	\$ 9,106 % 126.03%	
Revenue per Bus	\$ 6,535	5 7,415	(D) 11.87	7,047	7,225	(D) 2.46
	COMBINATION (119	OTAL - ALL O COMPANIES	LINES
	1932		% Inc. or (D) Dec.			% Inc. or (D) Dec.
Investment in Plant & Equipment Total Bus Operating Revenue No.of Buses Owned or Leased	\$13,238,144	\$26,360,939 \$17,443,185 2,240	(D) 24.11	357,591,596 335,196,287 5,232	\$41,397,523	(D) 14.98
Investment per Bus	\$ 11,510 163.72%		(D) 2.21 8.32	11,008 163.63%	3 11,288 149.26%	
Revenue per Bus	\$ 7,030	\$ 7,787	(D) 9.72	6,727	\$ 7,563	(D) 11.05

TABLE II

- GRAND TOTAL SUMMARY OF TABLES III, IV AND V - FINANCIAL AND OPERATING STATISTICS OF ELECTRIC RAILWAY BUS OPERATIONS - CALENDAR YEARS 1932 AND 1931 (189 COMPANIES)

	1932	1931	% Inc. or (D) Dec.
RESULTS OF OPERATIONS			
Bus Operating Revenue	\$ 70, 525 , 953	<pre>\$ 78,478,252</pre>	(D) 10.13
Bus Operating Expense (Incl. Retirement Exp.)	65,067,079	71,167,865	(D) 8.57
Net Revenue (*)	\$ 5,458,874	\$\frac{7,310,387}{}	(D) 25.33
MISCELLANEOUS STATISTICS	• •		•
Revenue Bus Hours	(a) 27,928,973	(b) 28,215,382	(D) 1.02
Total Bus Hours	(a) 28,168,877	(b) 28,443,294	(D) 0.96
Revenue Bus Miles	329,279,748	327,292,168	0.61
Total Bus Miles	331,785,719	330,078,486	0.52
Passengers Carried (Total)	1,011,570,699	1,055,419,176	(D) 4.15
Revenue	870,379,547	911,389,844	(D) 4.50
Revenue Transfer		12,242,028	(D) 1.10
Free Transfer	122,515,269	124,256,957	(D) 1.40
Free		7,530,347	(D) 12.77
Miles of Street or Highway Traversed	123817:80	12,835144	(D) 0.14
Buses Owned or Leased	9,980	9,995	(D) 0.15
Buses in Daily Operation	7,917	7,709	2.69
(*)Note: Only 96 of these 189 companies reported taxes 96 companies including taxes is as follows:	. The comparation	ve statement of th	ese % Inc. or
	1932	1931	(D) Dec.
Bus Operating Revenue	\$ 30, 769, 308	\$ 33, 655,527	(D) 8.58
Bus Operating Expense(Incl.Retirement Exp.)	27,959,252	30,429,320	(D) 8.12
Net Revenue	\$ 2,810,056	\$ 3,226,207	(D) 12.90
Taxes	2,771,328	2,661,871	4.11
Operating Income	₿ <u>38,728</u>	\$ 564,336	(D) 93.14
000		707 1-1 7 7 7 7 7	
(a)176 companies operating 313,045,600 revenue bus mil (b)176 " 305,781,135 " " "	es and 319,148,3 312,179,6		S

TABLE III

- CITY LINES COMBINED OPERATING REPORTS OF BUS COMPANIES OPERATING CITY LINES EXCLUSIVELY CALENDAR YEARS 1932 AND 1931 (123 COMPANIES)

	1932	1931	% Inc. or (D) Dec.
RESULTS OF OPERATIONS			
Bus Operating Revenue		\$ 38,500,527	(D) 7.63
Bus Operating Expense (Incl. Retirement Exp.)		35,698,596	(D) 6.83
Net Revenue (*)	\$\frac{2,302,820}{}	\$\frac{2,801,931}{}	(D) 17.81
WIGGOIT & MEDIC GOADICOIGS			
MISCELLANEOUS STATISTICS	(-) 35 705 704	(1) 34 007 500	0.00
Revenue Bus Hours		(b) 14,983,290	2.29 2.32
Revenue Bus Miles	• , , , , , , , , , , , , , , , , , , ,	(b) 15,193,646	2.52 4.58
	171,558,858	164,039,409	4. 3 6 4. 4 9
Total Bus Miles	173,389,356 547,100,416		(D) 2.86
Revenue	426,695,612		(D) 3.23
Revenue Transfer	8,964,738	8,840,769	1.40
Free Transfer	108,524,448	110,657,084	(D) 1.93
Free	2,915,618	2,770,796	5.23
Miles of Street or Highway Traversed		4,213.60	4.80
Buses Owned or Leased	5,171	5,122	0.96
Buses in Daily Operation	4,125		1.08
buses in party operation	4,120.	4,001	.L • 00
(*)Note: Only 63 companies of these 123 companies report these 63 companies including taxes is as follows:		comparative state	
			% Inc. or
	1932	<u> 1931</u>	(D) Dec.
Bus Operating Revenue	\$19,811,397	\$ 21,966,086	(D) 9.80
Bus Operating Expense(Incl.Retirement Exp.)	17,947,059	19,956,579	(D) 10.07
Net Revenue	\$ 1,846,338	\$ 2,009,507	(D) 8.12 '
Taxes	1,688,868	1,621,126	4.18
Operating Income	\$ 175,470	· \$ 388,381	(D) 54.82
000			
(a)120 companies operating 166,351,229 revenue bus mile (b)120 " 158,179,745 " " "	es and 168,180,5 " 160,080,8		es

TABLE III (Cont'd)

- CITY LINES -DERIVED RATIOS AND COMPARATIVE UNIT FIGURES CALENDAR YEARS 1932 AND 1931 (123 COMPANIES)

	1932	1931	% Inc. or (D) Dec.
Operating Ratio (Per cent)	93.53%	92.72%	0.87
	(a) 8.52%	(a) 7.38%	15.45
Operating Revenue: Per bus mile Per revenue passenger Per total passenger Per mile of street or highway traversed	20.51¢	23.20¢	(D) 11.60
	8.33¢	8.73¢	(D) 4.58
	6.50¢	6.84¢	(D) 4.97
	\$ 8,054	\$ 9,137	(D) 11.85
Operating Expense. Per bus mile Fer revenue passenger Per total passenger Per mile of street or highway traversed	19.18¢	21.51¢	(D) 10.83
	7.80¢	8.10¢	(D) 3.70
	6.08¢	6.34¢	(D) 4.10
	\$ 7,532	\$8,472	(D) 11.10
Total Bus Miles Operated: Per bus owned or leased Per bus hour Fer mile of street or highway traversed	33,531	32,398	3.49
	(b) 10.82	(b) 10.54	2.66
	39,265	39,383	(D) 0.30
Revenue Passengers: Per bus mile Per bus owned or leased Per mile of street or highway traversed	2.46	2.66	(D) 7.52
	82,517	86,086	(D) 4.15
	96,627	104,644	(D) 7.66
Ratio: Transfer Passengers to Revenue Passengers (Fer Cent)	27.53%	27.10%	1.59

⁽a)Reported by 63 companies (b)Reported by 120 companies

TABLE IV

- INTERURBAN LINES COMBINED OFERATING REPORTS OF BUS COMPANIES OPERATING INTERURBAN LINES EXCLUSIVELY CALENDAR YEARS 1932 AND 1931 (19 COMPANIES)

	1932	1931	% Inc. or (D) Dec.
RESULTS OF OPERATIONS Bus Operating Revenue Bus Operating Expense(Incl.Retirement Exp.) Net Revenue(*)(I	1,951,089	\$ 2,232,321 2,091,675 3 140,646	(D) 14.77 (D) 6.72
MISCELLANEOUS STATISTICS Revenue Bus Hours	583,215 583,378 10,975,974 11,070,052 9,681,518 9,531,410 13,840 105,320 30,948 1,816.04 281	(b) 631,645 (b) 632,052 11,166,217 11,269,630 10,194,959 10,035,294 5,589 120,223 33,853 1,837.19 296 219	(D) 7.67 (D) 7.70 (D) 1.70 (D) 1.77 (D) 5.04 (D) 5.02 147.63 (D) 12.40 (D) 8.58 (D) 1.15 (D) 5.07 (D) 6.85
(*)Note: Only 12 companies of these 19 companies reported these 12 companies including taxes is as follows:		comparative states	
Bus Operating Revenue	200,173	1931 1,592,271 1,474,980 3 117,291 205,092 (Def.)\$ 87,801	% Inc. or (D) Dec. (D) 24.20 (D) 17.59 (D) 2.40 137.79
(a)15 companies operating 9,193,141 revenue bus miles an (b)15 " 9,638,573 " " " " " (Def.) - Deficit		otal bus miles	

TABLE V

- COMBINATION CITY AND INTERURBAN LINES COMBINED OPERATING REPORTS OF BUS COMPANIES OPERATING BOTH CITY AND INTERURBAN LINES CALENDAR YEARS 1932 AND 1931 (47 COMPANIES)

	1932	1931	% Inc. or (D) Dec.
RESULTS OF OPERATIONS			<u> </u>
Bus Operating Revenue	33,058,472	5 37,745,404	(D) 12.42
Bus Operating Expense (Incl. Retirement Exp.)	29,853,986	33,377,594	(D) 10.56
Met Revenue (*)	3,204,486	3 4,367,810	(D) 26.63
MISCELLANEOUS STATISTICS	,		
Revenue Bus Hours	(a) 12,019,964	(b) 12,600,447	(D) 4.61
Total Bus Hours			(D) 4.59
Revenue Bus Miles		(b) 12,617,596	3 (
Total Bus Miles	146,744,916	152,086,542	(D) 3.51
Passengers Carried (Total)	147,326,311	152,864,621	(D) 3.62
		482,025,607	(D) 5.65
Revenue		460,424,589	(D) 5.71
Revenue Transfer	.3,128,315	3,395,670	(D) 7.87
Free Transfer		13,479,650	3.01
Free	3,622,424	4,725,698	(D) 23.35
Wiles of Street or Highway Traversed	5,585.85	. 6,784.65	(D) 2.93
Buses Owned or Leased	4,528	4,577	(D) 1.07
Buses in Daily Operation	3,588	3,409	5.25
(*)Note: Only 21 companies of these 47 companies reporthese 21 companies including taxes is as follows:	ted taxes. The	comparative statem	
			% Inc. or
	<u>1932</u>	<u>1931</u>	(D) Dec.
Bus Operating Revenue	9,751,048	\$ 10,097,170	(D) 3.43
Bus Operating Expense(Incl.Retirement Exp.)	8,796,718	8,997,761	(D) 2.23
Net Revenue	\$ 954,330	1,099,409	(D) 13.20
Taxes	882,287	835,653	5.58
Operating Income	72,043	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	(D) 72.69
000			
(a)41 companies operating 137,501,230 revenue bus miles			3
(b)41 " 137,962,817 " " "	142,356,8	OD d d d	

PART II

DETAILED STUDY OF OPERATING EXPENSES

CALENDAR YEARS 1932 AND 1931

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Note: This data given in this part of the bulletin has been confined to those companies operating either city lines exclusively or interurban lines exclusively and whose detail of operating expenses has been reported complete for two full years. Of the 123 city companies and the 19 interurban companies included in Part I some have had to be excluded because their classification of expenses did not conform in all respects to that used in this table; others have been excluded because they omitted charges to certain accounts, in some cases because under joint operation they could not segregate the bus portion of these charges from the railway portion.

TABLE VI

DETAILED STUDY OF OPERATING EXPENSES OF CITY LINES CALENDAR YEARS 1932 AND 1931 (48 COMPANIES)

(Note: Includes only companie	s reporting c	omplete deta	<u>il_of_exper</u>	<u>ses for two</u>	<u>full years</u>	<u></u>
		TOTAL	·	PER BUS MILE		
	1932	1931	% Inc. or (D) Dec.		1931	(D) Dec.
RESULIS OF OPERATION Bus Operating Revenue Bus Operating Expense (Incl.Retirement Exp.) Net Revenue			(D) 12.24 (D) 9.17 (D) 65.93	19.44	23.12¢ 21.87 1.25¢	(D) 14.10 (D) 11.11 (D) 66.40
MISCELLANEOUS STATISTICS Revenue Bus Miles. Total Bus Miles. Passengers Carried (Total). Revenue. Revenue Transfer. Free Transfer. Free. Miles of Street or H'way Traversed Buses Owned or Leased. Buses in Daily Operation.	187,412,606 4,912,261 35,803,035 1,456,087 2,083.33 2,495	5,995,191 38,702,845 1,503,723 2,042.78 2,480	2.22 2.20 (D) 8.75 (D) 8.76 (D) 18.06 (D) 7.49 (D) 3.17 1.98 0.60 (D) 0.16	2.67 2.18 0.06 0.42 0.01	2.99 2.44 0.07 0.46 0.02	(D) 10.70 (D) 10.66 (D) 14.29 (D) 8.70 (D) 0.50
DERIVED RATIOS Operating Ratio (Percent) Percent of Revenue Expended for: Retirement Expense Maintenance Expense (Total) Transportation Expense (Total) Injuries & Damages Average Cost per Bus Owned for: Maint.of Plant & Equipment (Tot. Tires and Tubes Maint.of Bus Bodies & Chassis Ratio: Transfer Passengers to Revenue Passengers(Percent)	14.51% 33.45% 34.33% 4.23% 2,290	13.10% 32.06% 33.28% 4.78% 2,517 291 953	10.76 4.34 3.16 (D) 11.51 (D) 9.02 (D) 11.00 (D) 12.28			

TABLE VI (Cont'd)

DETAILED STUDY OF OPERATING EXPENSES OF CITY LINES CALENDAR YEARS 1932 AND 1931 (48 COMPANIES)

		TOTAL			PER BUS A	<u>/III </u>
	1932	1931	% Inc. or (D) Dec.	19 3 2	1931	% Inc. or (D) Dec.
BUS OPERATING EXPENSES						
MAINT.OF PLANT & EQUIPTOTAL Maint.of Bus Bodies & Chassis Fires and Tubes Retirement Expense:	\$ 5,714,299 2,086,854 645,729	2,364,111	(D) 8.44 (D) 11.73 (D) 10.48	2.43	7.41¢ 2.81 0.85	(D) 10.39 (D) 13.52 (D) 11.77
(a) Euses	2,246,948 231,332 503,436	284,430	(D) 0.88 (D) 18.67 (D) 16.70	0.27	2.69 0.34 0.72	(D) 2.97 (D) 20.59 (D) 19.46
OPERATING GARAGE EXPENSE-TOTAL Fuel for Revenue Vehicles Lubricants for Revenue Vehicles Other Garage Expenses	1,666,145	1,657,398 274,846	(D) 4.84 0.50 (D) 14.69 (D) 9.83	1.94 0.27	3.76¢ 1.97 0.33 1.46	(D) 6.92 (D) 1.52 (D) 18.18 (D) 11.64
TRANSPORTATION - TOTAL Drivers, Cond., Helpers, etc All Other Transp. Expenses			(D) 9.46 (D) 8.44 (D) 14.98	5.82	7.70¢ 6.50 1.20	(D) 11.43 (D) 10.46 (D) 16:67
TRAFFIC PROMOTION - TOTAL	\$\\ 73,529	\$ 81,735	(D) 10.04	0.08¢	0.09¢	(D) 11.11
ADMINISTRATIVE & GEN'L EXPTOTAL. A.Administrative Expenses-Total B.Other General Expenses-Total Injuries and Damages Insurance	746,245 1,316,647 723,300 139,660 453,887	1,644,706 931,489 165,051	(D) 15.85 (D) 7.50 (D) 19.95 (D) 22.35 (D) 15.38 (D) 17.20 (D) 9.18	0.87 1.53 9.84 0.16 0.53	2.91¢ 0.96 1.95 1.11 0.19 0.65	(D) 17.53 (D) 9.38 (D) 21.54 (D) 24.33 (D) 15.79 (D) 18.46 (D) 11.11
(Incl.Retirement Exp.)					22012	· · · · · · · · · · · · · · · · · · ·

TABLE VII

DETAILED STUDY OF OPERATING EXPENSES OF INTERURBAN LINES CALENDAR YEARS 1932 AND 1931 (12 COMPANIES)

(Note: Includes only companie	<u>s_reporting_c</u>	omplete_deta	<u>il_of</u>	<u>-axpe</u>	<u>qses_for_two</u>	_full_years	44=======
		TOTAL				ATLE	
				c. or			% Inc. or
	1932	<u> 1931 </u>	L(D)	Dec.	1932	1931	(D) Dec
RESULTS OF OPERATION			!				
Bus Operating Revenue	⇒ 1,518,480	1,658,211	(D)	8,43	18.39⊄	20.55¢	(D) 10.51
Bus Operating Expense	1,554,152	1,586,205	(D)	2.02	18.82	19.66	(D) 4.27
(Incl.Retirement Exp.)							
Net Revenue	(Def.)\$35,672	72,006			(Def.)0.43g	0.89¢	-
	 		[!				·
MISCELLANEOUS STATISTICS			Í	į			
Revenue Bus Miles	8,241,927	8,047,580		2.41			
Total Bus Miles	8,258,386	8,066,824		2.37			
Passengers Carried (Total)	8,172,812	8,250,988		0.95	0.99	1.02	(D) 2.94
Revenue	8,044,097	8,120,353	(D)	0.94	0.97	1.01	(D) 3.96
Revenue Transfer	13,840	5 , 589	1	47.63	_	-	_
Free Transfer		93,544	(D)	8.00		0.01	
Free	28,817	31,502	(D)	8.52	<u> </u>	-	_
		1,487.65		2.08			l I
Buses Owned or Leased		213	(D)	7.04	i		
Buses in Daily Operation	154	164	(D)	6.10			
DERIVED RATIOS	'	, .] [] [
Operating Ratio (Percent)	102.35%	95.66%		6.99		į	
Percent of Revenue Expended for:	15/5.00/6	20000000					
Retirement Expense	15.28%	14.55%		5.02		j i	
Maintenance Expense (Total)				0.90			
Transportation Expense (Total)	36.54%			9.99		İ	
Injuries & Damages		3.98%		5.53			·
Average Cost per Bus Owned for:	, , , ,	/ - / - / - / - / - / - / - / - /	(- /			1	i
Maint.of Plant & Equipment (Fot.)	3 2,623	2,687	(D)	2.38			
Tires and Tubes	3 310 5	352 i	(D) 1	11.93		1	
Maint of Bus Bodies & Chassis	3 969	1,019	(D)	4,91		<u> </u>	
Maint. of Bus Bodies & Chassis Ratio: Transfer Passengers to Revenue Passengers (Percent).	1.24%	1.22%		1.63		<u> </u> 	

TABLE VII (Cont'd)

DETAILED STUDY OF OPERATING EXPENSES OF INTERURBAN LINES CALENDAR YEARS 1932 AND 1931 (12 COMPANIES)

					رد خواند دادان میکند دادان br>دادان خوان دادان دادا	مين المراجعة br>المراجعة المراجعة ال
		TOTAL		PER BUS MILE		
	1932	1931	% Inc. or (D) Dec.	1932	1931	$%$ Inc. or (\mathbb{D}) Dec.
BUS OPERATING EXPENSES						
MAINT.OF PLANT & EQUIP, TOTAL Maint.of Bus Bodies & Chassis Tires and Tubes Retirement Expense:	\$ 519,338 191,940 61,406	217,063	(D) 9.24 (D) 11.57 (D) 18.04	2.32	7.09⊄ 2.69 0.93	(D) 11.28 (D) 13.75 (D) 20.43
(a) Buses	231,694 403 33,895	396	(D) 3.78 1.77 (D) 13.21	-	2.99 - 0.48	(D) 6.02 (D) 14.59
OPERATING GARAGE EXPENSE-TOTAL Fuel for Revenue Vehicles Lubricants for Revenue Vehicles Other Garage Expenses	\$ 224,702 143,754 21,686 59,262	145,892 20,713	(D) 4.83 (D) 1.47 4.70 (D) 14.72	1.74´ 0.26	2.93¢ 1.81 0.26 0.86	(D) 7.17 D) 3.87 (D) 16.28
TRANSPORTATION - TOTAL Drivers, Cond., Helpers, etc All Other Transp. Expenses	\$ 554,914 346,719 208,195	403,928	0.75 (D) 14.16 41.76	4.20	6.83¢ 5.01 1.82	(D) 1.61 (D) 16.17 38.46
TRAFFIC PROMOTION - TOTAL	\$ 26,084	\$ 30,633	(D) 14.85	0.32¢	0.38¢	(D) 15.79
ADMINISTRATIVE & GEN'L EXPTOTAL. A.Administrative Expenses-Total B.Other General Expenses-Total. Injuries and Damages Insurance	\$ 229,114 93,986 135,128 57,121 12,911 65,096	76,729 119,717 66,058 15,542	16.63 22.49 12.87 (D) 13.53 (D) 16.93 70.78	1.14 1.63 0.69 0.15	2.43¢ 0.95 1.48 0.82 0.19 0.47	13.99 20.00 10.14 (D) 15.85 (D) 21.05 61.70
TOTAL BUS OFERATING EXPENSES (Incl.Retirement Exp.)	ÿ 1,554,152	» 1,586,205	(D) 2.02	18.82¢	19.66¢	(D) 4.27

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PART III

RETIREMENT RATES AND SEATING CAPACITY OF BUSES

CALENDAR YEARS 1932 AND 1931

24	LENDAR YEA	R 1932				
	No.of U	ompanies F	Reporting 1	ach Rate D	ivided To	cording to
Method Used		of Years	They Have	Been Opera	ting Motor	
	Under	2 to 4	4 to 6	6 to 8	Over	Total
	2 yrs.	yrs.	yrs.	yrs.	8 yrs.	
Mileage Basis						
1.00% per bus mile			1		2 '	2
1.50% " " "		1			1	1
1.512 " " "					1	1
1.70%					1	1
1.96¢ " " "				1	1	1
2.00% 1 1 1	1	5	1	3	3	9
2.10¢ it it it	j				1	1
2.25%	i		1		1	1
2.50¢ " " "		1	1		1	2
3.00%		3	2	3	9	17
3.172 " "					1	1
3.33% " "	1			1	_	1
3.50¢ 11 11 11 11 11 11 11 11 11 11 11 11 11	İ	į		2	2	4
$-3 \cdot 04\%$					1	1
4.00%	[]			4	3	6
$\pm \cdot 20\%$	į		!	,	1 7	
3.002				1	3	4
0.00%			1	,	2	2
1 6 0 0 x		į		1		1
10.00%			<u> </u>			
TOTAL-MILEAGE BASIS	_ <u> </u>	 5	4	16	33	58
Percentage of Revenue Basis	}	1			_	_
6% of operating revenue		į			1	1
10% " "		ļ	1		<i>:</i>	1
132% " "				1		1
$14\frac{1}{2}\%$ " "	1			1		1
20% " "		1				1
25% lst yr20% 2nd yr. of operating						_
revenue		<u> </u>			<u> </u>	1
TOTAL-PERCENTAGE OF REVENUE BASIS		<u> </u>	11	2	2	66

(Continued on next page)

TABLE VIII - SUMMARY OF RETIREMENT RATES ADOPTED BY 189 BUS UNDERTAKINGS (Cont'd)

PART III CALENDAR YEAR 1932 No. of Companies Reporting Each Rate Divided According to the No. of Years They Have Been Operating Motor Buses
Under | 2 to 4 | 4 to 6 | 6 to 8 | Over | Potal Method Used Total 2 yrs. 8 yrs. yrs. yrs. yrs. Percentage of Cost Basis 2% per month 1/12 of 25% per month 1 1 12½% annually 14% 2 14 2/7% " 6 1 15% 1 1 15 3% 1 1 16 2/3% " 3 1 1 1 17% 1 1 20% 8 15 1 6 2 7 5 25% 11 33 1/3% " 40% 1st vr.-30% 2nd vr.-20% 3rd vr. 8 TOTAL-PERCENTAGE OF COST BASIS 16 26 54 Miscellaneous 1 4 year life 5 1 4 1 3 11 6 1 2 11 8 2 10 \$20 per month 340 " 1 \$1,142 per month 31,200 per year 1 \$18,000 * 1 250,000 miles $\overline{13}$ TOTAL-MISCELLANEOUS 20 SUMMARY 14 10 38 No. of cos. reporting method used 74 138 No. of cos. reporting retirement expense in opr.exp. hut not method used 2 9 10 21 No. of cos. not providing for retirement ... 10 16 22 53 TĒ GRAND TOTAL 22 63 1.06 212(*)

A number of companies reported more than one rate. A summary of the rates reported by panies is given on the next page.

PART III

TABLE VIII - SUMMARY OF RETIREMENT RATES ADOPTED BY 189 BUS UNDERTAKINGS (Cont'd)

CALENDAR YEAR - 1932

RETIREMENT RATES OF COMPANIES USING MORE THAN ONE RATE

Companies Operating From 4 to 6 Years

1 Jo. - 2.00¢ (City) and 2.50¢ (Interurban) per bus mile.

Companies Operating From 6 to 3 Years

- 1 Co. 2.00¢ (3 Months) and 1.00¢ (9 Months) per bus mile.
- 1 Co. 2.00% (Fords) and 4.00% (Others) per bus mile.
- 1 Co. 5.00% (40 pass. Twins) and 4.00% (Others) per bus mile.
- 1 Co. 3.50g, 7.00g and 10.00g per bus mile.
- 1 Co. 25% and 33 1/3% of cost annually.

Companies Operating Over 8 Years

- 1 Jo. 1.00% (Reo GB) 2.00% (Yellow Coach XV), 2.25% (Chevrolet) 3.00% (White) and 5.00% (Fageol-Reo W) per bus mile. \$20 per month (Dodge Jedan) and \$40 per month (Packard).
- 1 Co. 1.51g (Single deck) and 2.10g (Double deck) per bus mile.
- 1 Co. 1.70% (Freight) and 1.96% (Fassenger) per bus mile.
- 1 Co. 2.00% (2 Months) and 4.00% (10 Months) per bus mile.
- 1 Co. 3.00% (27 Buses) and 5.00% (3 Buses) per bus mile.
- 1 Co. 3.17¢ (Single deck) and 4.56¢ (Double deck) per bus mile.
- 1 Co. 14 2/7% (Twins) and 16 2/3% (Others) of cost annually.
- 1 Co. 20% and 25% of cost annually.
- 1 Co. 5 year and 7 year life.
- 1 Co. 8 year and 10 year life.

PART III

TABLE IX - NUMBER AND SEATING CAPACITY OF BUSES OWNED OR LEASED BY ELECTRIC RAILWAYS 183 BUS UNDERTAKINGS OWNING OR LEASING 9,635 BUSES - CALENDAR YEAR 1932

Arranged According to Seating Capacities with Capacity Having Greatest Number of Buses First

Seating Capacit	y:Number of Buses:N	umber of Companies	Seating Capacity	Number of Buses N	umber of Companies
29	2,596	110	60	57	1
21	1,196	121	61	5 5	1
31	915	13	19	40	9
25	751	72	56	27	1
32	473	8	22	21	4
4 O	452	28	69	18	2
33	428	20	6 6	15	1
27	318	21	18	14	7
38	313	13	41	14	3
37	241	14	63	13	1
71	214	2	34	11	2
39	192	10	44	11	1
23	156	25	55	11	1
28	139	12	7	10	7
15	132	5	70	10	1
20	121	23	14	6	3
36	96	5	42	5	l
16	89	13	12	4	3
30	80	8	13	3	1
17	70	22	10	2	1
24	68	13	46	2	1
35	63	6	59	2	1
67	62	2	4	1	1
58	59	1	6	1	1
26	58	12			

These 183 Bus Undertakings own or lease 9,635 Buses with a total capacity of 296,470 seats or an average of 30.77 seats per bus.

¹¹⁹ City Companies own or lease 4,972 Buses with a total capacity of 158,270 seats or an average of 31.83 seats per bus.

¹⁹ Interurban Companies own or lease 279 Buses with a total capacity of 7,987 seats or an average of 28.63 seats per bus.

⁴⁵ Combination City & Interurban Companies own or lease 4,384 Buses with a total capacity of 130,213 seats or an average of 29.72 seats per bus.