CHAPTER VII.

FINANCIAL OPERATIONS.

INTRODUCTION.

Form of accounting.—Statistics of the financial transactions of street and electric railways have been collected in conformity with the standard classification of accounts and form of report adopted by the American Street and Interurban Railway Accountants' Association. This classification and this form are practically the same as those used at the census of 1902, which were devised by the Street Railway Accountants' Association of America. The system of uniform accounts used at this census has the approval of practically all of the electric railways of the country and is in use either in its entirety or in a modified form by the majority of them. The method of accounting in use by some companies, however, differed in many important respects from the standard form, while in the case of other companies there were slight differences that could be readily adjusted. For all companies that furnished financial statistics, however, it was found possible to rearrange the details so as to supply totals for the main items enumerated in the standard form of report. As a rule, the statistics were obtained from bookkeeping entries, but in a few cases it was necessary to resort to estimates for the segregation of totals.

Allied industries.—Complications and difficulties were encountered most frequently in obtaining financial statistics for railways that were operated in connection with other industries, since often in such cases separate accounts were not kept for the various branches of the business. These companies may be arranged in four classes, as follows:

1. *Electric-railway companies operating pleasure resorts.*—Parks, summer hotels, theaters, and pleasure resorts, when operated by electric railways for the purpose of attracting travel, were treated as a part of the railway system, and their income and expenses were included in the railway income account, the cost or value of such properties being regarded as a part of the assets of the railway.

2. *Electric-railway companies selling electric current.*—For census purposes these companies were in turn divided into three groups, as follows:

(*a*) Companies that controlled or operated light and power plants but that could furnish separate data as to capitalization, equipment, income, and expenses for the two branches of industry. In such cases separate reports were made and the data for the light and power plants were excluded from the report on electric railways.

(*b*) Companies that controlled or operated light and power plants and could supply separate data for the two branches of industry in the case of equipment, income, and expenses but not in the case of capitalization. In such cases the entire capitalization was included in the railway report, which also included the net income from the lighting plant, the total taxes, and all other fixed charges. The cost or value of the lighting plant was necessarily included in the cost or value of the entire plant, but was shown in the balance sheet as "other permanent investments." With these exceptions the statistics for such lighting plants were included in the report for central electric light and power stations.

(*c*) Companies which could not segregate any of the statistics so as to make separate reports for the two branches of the industry. In such cases the gross income and expenses of the light and power plant were included in the income and expense account of the railway, and the cost of construction and equipment of the light plant formed a part of the total reported for the railway company. Where possible, however, separate amounts for the two branches of service are shown in the detailed expense account, except under the heading of "power-plant expense," which in nearly all cases represents the total expense for both railway and lighting operations.

3. *Companies operating both steam and electric railways.*—These companies may be subdivided into the three following groups:

(*a*) Companies for which a segregation could be made of the statistics so as to include complete data for the electric railways in this report.

(*b*) Companies for which it was necessary to make a partial combination of the statistics, and to include in the report for electric railways the net income from the steam road and the total taxes and other fixed charges in the income account and the cost or value of the steam road as "other permanent investments" in the balance sheet of the electric road.

(c) Companies for which no separate financial statistics concerning their electric-railway properties could be obtained.

4. *Companies carrying on other industries, such as gas or ice plants, waterworks, ferries, etc., in connection with the operation of the electric railway.*—In such cases the net income from the secondary industry, and the total taxes and other fixed charges were included in the income account, and the cost or value of the plant, in the balance sheet of the railway, as "other permanent investments." An exception to this rule was made in the case of 2 companies operating ferries, which contended that the ferry service was an integral part of the railway operations, and that no separation could be made of their financial statistics. The income, expenses, etc., of the ferries were therefore treated as a part of the corresponding accounts of the railway.

The following statement, classifying electric-railway companies according to the extent to which they carried on secondary enterprises, throws light on the difficulties of untangling intermingled accounts, in order to present separately, as far as possible, the financial statistics of railway operations.

In some instances the income from these secondary enterprises forms a large proportion of the total income of the company, and when the primary and secondary enterprises are carried on by the employment of the same capital, it is in most cases impossible to separate the statistics so as to show reliable figures pertaining exclusively to the operation of the railways. The income, whether gross or net, from the secondary enterprises is shown separately in the detailed income account, and the expenses of operation, when included, are also segregated as far as possible in the detailed statement of expenses.

Operating companies, classified according to number and character of secondary enterprises: 1907.

NUMBER AND CHARACTER OF SECONDARY ENTERPRISES.	Number of operating companies furnishing financial data.
Total	939
Electric railways only—no secondary enterprise	693
Electric railways in connection with steam railroads	14
Electric railways and one or more nonrailway enterprises	232
One other enterprise	129
Sale of electric current	109
Purchase and sale of real estate	7
Operation of ferries	4
Manufacture of gas—commercial	1
Some one enterpr se of a miscellaneous group, including steam heating, manufacturing, operation of bridges or turnpikes, etc	8
Two other enterprises	84
Sale of electric current and commercial manufacture of gas	39
Sale of electric current and operation of waterworks	5
Sale of electric current and purchase and sale of real estate	4
Sale of electric current and manufacture of ice	4
Sale of electric current and operation of a ferry	1
Sale of electric current and some one enterprise of a miscellaneous group	28
Manufacture of gas or ice, or purchase and sale of real estate, and some one enterprise of a miscellaneous group	3
Three other enterprises	14
Sale of electric current, purchase and sale of real estate, and some one enterprise of a miscellaneous group	4
Sale of electric current, manufacture of gas, and some one enterprise of a miscellaneous group	3
Sale of electric current, manufacture of ice, and some one enterprise of a miscellaneous group	3
Sale of electric current, manufacture of gas, and operation of waterworks	2
Sale of electric current, manufacture of gas, and operation of a ferry	1
Sale of electric current, manufacture of ice, and operation of waterworks	1
Four other enterprises	5
Sale of electric current, manufacture of gas, operation of waterworks, and some one enterprise of a miscellaneous group	2
Sale of electric current, purchase and sale of real estate, operation of a ferry, and some one enterprise of a miscellaneous group	1
Sale of electric current, operation of waterworks, manufacture of ice, and some one enterprise of a miscellaneous group	1
Manufacture of gas and ice, purchase and sale of real estate, and operation of a ferry	1

Companies that failed to furnish financial statistics.—There were 6 operating railways in 1907 and 18 in 1902 that failed to furnish any information concerning their financial transactions.

TABLE 86.—OPERATING COMPANIES THAT FAILED TO REPORT FINANCIAL DATA: 1907 AND 1902.

STATE.	Name of company.	Miles of track.	Number of fare passengers.	Passenger-car mileage.
	1907			
	Total	292.95	18,848,177	7,047,925
Connecticut	New York, New Haven and Hartford R. R. Co. (New Canaan branch)	8.87	260,523	124,728
Massachusetts	New York, New Haven and Hartford R. R. Co. (Nantasket division)	17.13	572,222	80,238
New Jersey	West Jersey and Seashore R. R. Co. (Atlantic City and Longport branch)	18.55	5,735,823	1,173,056
New Jersey	West Jersey and Seashore R. R. Co. (Camden and Atlantic City branch)	152.70	3,870,913	3,546,538
Rhode Island	New York, New Haven and Hartford R. R. Co. (Providence, Warren and Bristol branch)	84.85	7,193,944	1,366,647
Virginia	Norfolk and Southern Ry. Co. (electric division)	60.70	1,214,752	747,723
	1902			
	Total	378.90	44,280,436	12,550,840
Arizona	Phoenix Ry. Co.	12.00	750,000	255,500
Colorado	Boulder Railway and Utility Co.	4.08	(1)	(1)
Connecticut	New York, New Haven and Hartford R. R. Co. (New Canaan branch)	8.63	204,900	139,602
Connecticut	New York, New Haven and Hartford R. R. Co. (Berlin system)	25.89	1,045,008	494,464
Illinois	South Chicago City Ry. Co.	38.42	4,532,047	1,399,085
Illinois	Galesburg Electric Motor and Power Co.	17.00	1,750,000	565,750
Indiana	Hammond, Whiting and East Chicago Electric Ry. Co.	24.90	1,956,616	590,234
Kansas	Kansas City-Leavenworth R. R. Co.	39.00	(1)	(1)
Massachusetts	New York, New Haven and Hartford R. R. Co. (Nantasket division)	39.33	1,039,810	323,032
New Jersey	West Jersey and Seashore R. R. Co. (Atlantic City and Longport branch)	19.03	5,206,304	1,438,770
Ohio	Wellston and Jackson Belt Ry. Co.	10.50	928,925	207,112
Rhode Island	New York, New Haven and Hartford R. R. Co. (Providence, Warren and Bristol branch)	31.50	4,520,894	1,123,270
South Dakota	Rapid City Street Ry. Co.	2.00	(1)	(1)
Virginia	Southside Railway and Development Co.	12.85	1,248,059	541,503
Virginia	Old Dominion Ry. Co.	12.21	(1)	(1)
Virginia	Richmond Traction Co.	18.75	6,795,946	2,248,624
Virginia	Richmond Passenger and Power Co.	25.21	9,517,614	1,873,533
Virginia	Virginia Passenger and Power Co. (including West Hampton Park Ry. Co.)	37.00	4,184,313	1,349,461

[1] Not reported.

The companies from which no financial statistics were secured owned only nine-tenths of 1 per cent of the total trackage and carried one-fourth of 1 per cent of the fare passengers reported for 1907; the corresponding percentages for 1902 were 1.7 for the trackage and nine-tenths of 1 per cent for the passengers reported. The fact that the number of companies and the proportion of traffic for which no financial data were secured were much smaller in 1907 than in 1902 should be kept in mind when the increases shown in the financial statistics are considered. The difference in completeness of the two census reports gives statistical increases for 1907 that are unreal, especially for Illinois, Indiana, Kansas, and Virginia, where companies that failed to report financial statistics in 1902 furnished complete reports in 1907.

No company refused to furnish statistics for the census of 1907. The 6 railways for which financial data were not obtained were operated in connection with steam railroads, and the companies claimed that the accounts of the two were so intermingled that it was impossible to make a satisfactory segregation of capitalization and financial data.

Companies operating part of year.—At the census of 1902, statistics were presented separately for 57 operating companies that made reports covering less than twelve months. These were not all the companies for which the reports indicated less than a year's operation, but only those whose part-time operations were considerable. At the census of 1907 there were 55 operating companies that made reports for less than twelve months.

Track and traffic of companies operating only a part of the year: 1907 and 1902.

	1907	1902
Number of companies	55	57
Miles of track	800.16	831.17
Number of fare passengers	12,269,577	37,738,491
Car mileage	5,279,809	13,020,048

In addition to these 55 companies operating only a part of the year 1907 there were 16 companies whose operations were largely confined to the summer or tourist season. These are noted in Table 183, but inasmuch as their organization expense, taxes, and other fixed charges were accruing and payable for the entire year, they were treated as operating the whole year and were not included with the part-time companies. Of the 55 companies treated as operating only a part of the year in 1907, 50 were new concerns starting to operate during the year, 3 were in litigation or in the hands of receivers, and the other 2 had changed ownership during the year.

The average time of operation of the companies that operated only a part of the year was slightly over five months in 1907 as compared with six and two-thirds months in 1902. While such companies were only two fewer in 1907 than in 1902, they were of far less

relative importance, reporting but 2.3 per cent of the trackage for all companies and only two-tenths of 1 per cent of the number of fare passengers, as compared with 3.7 per cent of total track and eight-tenths of 1 per cent of the number of fare passengers for the 57 companies of 1902. The inclusion of these companies does not materially affect the financial results of operation, as shown by subsequent tables.

Census meaning of state totals.—In considering the state totals for the financial data, it should be remembered, as pointed out in the earlier chapter of traffic, that the totals do not necessarily represent the exact statistics of income, expenses, etc., of the traffic within the several state lines—since a number of companies operated track in more than one state—but rather of the traffic of companies that were credited to the respective states.

Companies in Hawaii and Porto Rico.—The financial statistics of railways in Hawaii and Porto Rico[1] are appended to the main tables; but they are not included in the totals—which relate only to railways in continental United States—and they are not considered in the text.

I.

INCOME ACCOUNT.

An analysis of the financial transactions of street and electric railways requires a segregation of the statistics for operating and lessor companies, and for income and expenses, and a grouping of the various items for roads operated under peculiar conditions. These segregations are made in subsequent sections of this chapter. The present section, on the "income account," is a general survey of the income and expense accounts of all companies.

All income from railway operations originates with the operating companies, but a portion of it is paid as rentals to nonoperating lessor companies, and is reported by them as income. Therefore, to avoid duplication, it is necessary to preserve the distinction between the two classes of companies. The number and importance of the lessor companies was not appreciated at the time the census of 1902 was started, and no provision was made for the collection of reports from them; but the statistics for many of them were compiled from the rentals reported as paid by the operating companies and from information obtained from street-railway journals and similar sources. For the 1907 census all of the reports for lessor companies have been prepared from information furnished by the companies.

Gross income.—The gross income of the 1,230 operating and lessor companies which reported financial data amounted to $477,657,503 in 1907. Of this amount, $47,500,933 was reported by the lessor companies as income from rentals paid by the operating companies, and should be deducted to ascertain the true total for all companies, which was $430,156,570 as compared with $250,526,642 in 1902, an increase of $179,629,928, or 71.7 per cent. These totals include a considerable amount of income derived from miscellaneous sources by both operating and lessor companies, which can properly be considered as a part of the income of railway companies, though not derived from the operation of the roads. Moreover, the income derived from miscellaneous sources includes, for 1907, an item of $3,255,618 as income from interest on bonds and dividends on stocks of other electric railways. This involves a duplication in the statistics of gross income reported by all companies for the United States as a whole, since it represents the income from electric-railway securities which are held by other operating railway companies. The amount of the duplication for 1902 can not be determined.

Such items as operating earnings, operating expenses, and net earnings from operation pertain exclusively to operating companies, and the gross income for these companies is shown in Table 87, while the income for the lessor companies is given in Table 94, and for operating and lessor companies combined in Table 96.

TABLE 87.—*Gross income of operating companies, by source: 1907 and 1902.*

SOURCE.	GROSS INCOME.				
	1907	1902	Per cent of increase.	Per cent of total.	
				1907	1902
Gross income	[1] $429,744,254	[2] $250,504,027	71.6	100.0	100.0
Operating earnings, total	418,187,858	247,553,999	68.9	97.3	98.8
Passengers	382,132,404	233,821,548	63.4	88.9	93.3
Chartered cars	705,261	303,608	132.3	0.2	0.1
Freight	5,231,215	1,038,097	403.9	1.2	0.4
Mail	646,575	432,080	49.6	0.2	0.2
Express	1,560,802	401,672	288.6	0.4	0.2
Sale of electric current	20,093,302	7,708,574	160.8	4.7	3.1
Miscellaneous sources	7,818,209	3,853,420	102.9	1.8	1.5
Miscellaneous income	11,556,396	2,950,628	291.7	2.7	1.2

[1] Exclusive of reports for 6 companies which failed to furnish this information.
[2] Exclusive of reports for 18 companies which failed to furnish this information.

Aside from the enormous increase shown in the annual gross income of operating companies, the most interesting fact developed by this table is the absolute and relative increase in the income from sources other than the operation of passenger cars. The income from freight and express business in 1907 was almost five times as great as in 1902, an increase which is traceable to the growth of business on the interurban lines. The amount derived from the sale of electricity to other companies, or to other individuals or corporations, has increased almost threefold, while the amount of miscellaneous income not from operation is almost four times as great. The increase in these items has reduced the proportion derived from passengers by 4.4 per cent.

[1] See also p. 37.

Next to ascertaining the increase in the amount of income derived from the different sources, it is of interest to ascertain the states in which the greatest increases have occurred, and this is shown by Table 88.

TABLE 88.—*Gross income of operating companies, by states and geographic divisions: 1907 and 1902.*

STATE OR TERRITORY.	1907		1902		Per cent of increase in gross income.
	Number of companies.	Gross income.	Number of companies.	Gross income.	
United States	[1] 939	$429,744,254	[2] 799	$250,504,027	71.6
North Atlantic division	365	197,226,943	356	132,794,796	48.5
Maine	17	2,293,197	19	1,571,562	45.9
New Hampshire	16	1,002,182	7	604,131	80.8
Vermont	10	454,252	9	249,228	82.3
Massachusetts	62	31,073,902	74	23,633,410	31.5
Rhode Island	5	4,459,037	7	2,964,260	50.4
Connecticut	8	7,378,996	21	4,355,775	69.4
New York	101	91,585,673	96	60,881,780	50.6
New Jersey	24	13,082,658	25	8,176,023	60.0
Pennsylvania	122	45,706,986	98	30,357,727	50.6
South Atlantic division	100	29,604,986	75	15,164,235	95.2
Delaware	4	758,183	3	500,550	51.5
Maryland and District of Columbia	19	12,132,593	18	7,803,313	53.7
Virginia	22	5,401,415	16	1,667,022	224.0
West Virginia	15	2,588,725	8	1,102,171	134.9
North Carolina	11	1,295,477	7	442,467	192.8
South Carolina	7	1,336,457	7	653,736	104.4
Georgia	12	4,720,595	10	2,375,224	98.7
Florida	10	1,371,541	6	529,743	158.9
North Central division	293	135,283,571	235	74,272,890	82.1
Ohio	73	31,274,901	62	16,609,851	88.4
Indiana	33	11,490,768	20	3,813,076	201.5
Illinois	70	40,951,652	48	25,029,257	63.6
Michigan	24	11,031,974	24	6,521,173	69.2
Wisconsin	20	6,662,817	17	3,923,884	69.8
Minnesota	5	7,056,508	5	3,727,048	89.3
Iowa	24	4,301,140	22	2,403,834	82.7
Missouri	14	18,082,732	16	10,734,692	68.5
North and South Dakota	5	112,129	.....	.....	.....
Nebraska	8	2,744,104	4	1,148,994	138.8
Kansas	17	1,478,846	11	370,481	299.2
South Central division	90	26,353,014	60	11,386,290	131.4
Kentucky	13	4,791,993	12	2,933,800	63.3
Tennessee	9	4,480,991	8	1,866,835	140.0
Alabama	10	3,467,476	9	1,497,351	131.6
Mississippi	8	906,289	5	258,054	250.4
Louisiana	11	5,994,975	8	2,910,244	106.0
Arkansas	8	1,275,396	7	371,560	243.3
Oklahoma	8	577,957	.....	.....	.....
Texas	23	4,857,997	17	1,547,846	213.9
Western division	91	41,275,740	67	16,886,416	144.4
Montana	5	902,621	5	492,023	83.5
Colorado	11	4,483,254	7	2,227,766	101.2
Washington	14	8,402,560	8	2,542,906	230.4
Oregon	8	3,627,990	6	1,042,895	247.9
California	41	21,545,707	35	9,967,838	116.2
All other Western states and territories [3]	12	2,313,518	6	612,988	277.4

[1] Exclusive of 6 companies which failed to furnish this information.
[2] Exclusive of 18 companies which failed to furnish this information.
[3] Includes states and territories as follows: 1907—Arizona, 4; Idaho, 2; Nevada, 1; New Mexico, 2; Utah, 3. 1902—Arizona, 1; Idaho, 1; New Mexico, 1; Utah, 3.

Kansas shows the largest percentage of increase, followed by Mississippi, Oregon, Arkansas, Washington, and Virginia, in the order named. The development of the industry in all of these states, however, is of comparatively recent origin, and the amounts involved are small as compared with those reported for the more important states, such as New York and Pennsylvania, where the amount of the increase alone is greater than the total income reported for any of the states above referred to.

Of the geographic divisions, the Western shows the greatest percentage of gain, followed by the South Central, South Atlantic, and North Central, in the order named. The relative increase for each of the divisions referred to is greater than the average for the country at large, while that for the North Atlantic division is below the average for the United States. This further appears in the following statement, which gives the per cent distribution of the number of companies and of the gross income, by geographic divisions, at the two census periods:

Per cent distribution of number of operating companies and gross income of operating companies, by geographic divisions: 1907 and 1902.

DIVISION.	PER CENT OF TOTAL FOR UNITED STATES.			
	Number of companies.		Gross income.	
	1907	1902	1907	1902
United States	100.0	100.0	100.0	100.0
North Atlantic	38.9	44.6	45.9	53.0
South Atlantic	10.6	9.4	6.9	6.1
North Central	31.2	29.4	31.5	29.6
South Central	9.6	8.3	6.1	4.5
Western	9.7	8.4	9.6	6.7

It is evident that the North Atlantic division, with its relatively dense population, earlier reached a point of fairly complete development of electric railways, and that the other divisions have now begun to make a similar development that gives them a relative gain in the census figures. The 6 states showing the largest gross income are New York, Pennsylvania, Illinois, Ohio, Massachusetts, and California, representing 3 geographic divisions. The combined gross income reported for these states formed 61 per cent of the total income for 1907 as compared with a corresponding percentage of 66.5 in 1902.

Condensed income account of operating companies.—Table 89 is a consolidation of the income accounts for the two censuses of all operating companies that furnished financial statistics. For some companies the income account contains what is known as bookkeeping entries, such as amounts of taxes or other fixed charges which accrued during the year covered, but were not paid in that year, and therefore it does not agree with an actual cash statement of receipts and expenditures. Such statements, however, reflect the true financial standing of the companies at the end of the year covered by the reports.

TABLE 89.—*Condensed income account of operating companies: 1907 and 1902.*

ACCOUNT.	1907	1902	Per cent of increase.
Number of companies	[1] 939	[2] 799	17.5
Gross income	$429,744,254	$250,504,627	71.6
Operating earnings	418,187,858	247,553,999	68.9
Operating expenses	251,309,252	142,312,597	76.6
Net earnings from operation	166,878,606	105,241,402	58.6
Miscellaneous income	11,556,396	2,950,628	291.7
Gross income, less operating expenses	178,435,002	108,192,030	64.9
Deductions from income, total	138,094,716	77,595,053	78.0
Taxes	19,755,602	13,078,899	51.0
Interest	63,740,744	38,085,911	67.4
On funded debt	53,766,525	35,223,284	52.6
On other debt	9,974,219	2,862,627	248.4
Rent of leased lines and terminals	48,022,596	25,518,225	88.2
Miscellaneous deductions	6,575,774	912,018	621.0
Net income	40,340,286	30,596,977	31.8
Dividends	26,454,732	15,882,110	66.6
Surplus	13,885,554	14,714,867	[3] 5.6

[1] Exclusive of 6 companies which failed to furnish this information.
[2] Exclusive of 18 companies which failed to furnish this information.
[3] Decrease.

This condensed form of income account conveys an idea only of the magnitude and relative importance of the totals for the principal accounts. It should be considered in connection with the detailed statistics of operating earnings and expenses, deductions from income, and general results of operation, which are shown in subsequent tables. The table may be regarded as representing all operating companies looked at as constituting a single consolidated system. It indicates that in the year 1907 as compared with 1902 there had been a larger percentage of increase in operating expenses than in operating earnings, thus relatively reducing the net earnings from operation, but that the earnings from miscellaneous sources had increased by a very large ratio, so that the percentage of increase in the gross income less operating expenses was not much less than the percentage of increase in operating earnings. The fixed charges and miscellaneous deductions from income show a large percentage of gain, and the amounts paid in dividends also increased largely. The result of all these transactions was an actual decrease in the surplus funds of the railways at the end of 1907 as compared with the amount indicated at the end of 1902. A decrease in the surplus account does not necessarily reflect an unfavorable financial condition, since it may be the result of changes in financial policy or bookkeeping practice rather than a change in traffic conditions. For example, large amounts are reported for some items under miscellaneous deductions from income in 1907 that did not appear in 1902, particularly under charges for depreciation and sinking-fund accounts.

The changes in the relative importance of the several objects for which the gross income was employed is shown by the percentages in Table 90.

In consolidating the totals for all roads the high and low percentages counterbalance each other to some extent, and the result is a composite showing which can not be accepted as indicating the actual conditions for any particular company or even the typical conditions in the industry. There were increases of 1.7 in the percentage of gross income which was paid for operating expenses and of 1.1 in the percentage represented by deductions from income. The relative amount paid in dividends was about the same for the two years, while the percentage reported as surplus decreased by 2.7. Of the items entering into fixed charges or deductions from income, taxes [1] and interest have decreased in the percentage which they represent of the total, while rentals of leased lines and miscellaneous deductions have increased. The ratio of operating expenses to operating earnings is considered elsewhere.[2]

TABLE 90.—*Per cent distribution, by accounts, of gross income of operating companies: 1907 and 1902.*

ACCOUNT.	PER CENT OF GROSS INCOME.	
	1907	1902
Gross income	100.0	100.0
Operating expenses	58.5	56.8
Deductions from income, total	32.1	31.0
Taxes	4.6	5.2
Interest	14.8	15.2
On funded debt	12.5	14.1
On other debt	2.3	1.1
Rental of leased lines and terminals	11.2	10.2
Miscellaneous deductions	1.5	0.4
Dividends	6.2	6.3
Surplus	3.2	5.9

Net income, dividends, and surplus.—The net income is obtained by deducting the operating expenses and various fixed charges from the gross income. The net income of all operating companies combined in 1907 was $40,340,286 as compared with $30,596,977 in 1902, an increase of $9,743,309, or 31.8 per cent. There were 668 companies in 1907 that reported a net profit on the year's operations, amounting in the aggregate to $51,201,981; 4 companies reporting an even balance, neither profit nor loss; and 267 companies that reported a net loss on the year's operations, amounting in the aggregate to $10,861,695. The difference between these two sums, $40,340,286, represents the net income for all companies regarded as one entire system. During 1902 there were 565 companies that reported a net profit, amounting in the aggregate to $34,352,684; one company that reported an even balance; and 233 companies that reported a net loss on the year's operations, amounting in the aggregate to $3,755,707 (see Table 91). In other words, 71.1 per cent of the companies reporting financial data in 1907 and 70.7 per cent in 1902 made a net profit, while 28.4 per cent in 1907 and 29.2 per cent in 1902 reported a net loss on the year's business. The net income for the companies reporting a profit for 1907 exceeded the net income for the same class of companies in 1902 by $16,849,297, or 49 per cent.

It is interesting to note that profits of profit-making companies and losses of loss-taking companies were

[1] For explanation of the proportionate decrease in taxes, see p. 160.
[2] See p. 175.

both much greater per company in 1907 than in 1902. Thus the net profit per company reporting a profit was $76,650 in 1907 as compared with only $60,801 in 1902, while the net loss per company reporting loss was $40,681 in 1907 as compared with only $16,119 in 1902. The gains per company in 1907 were 26.1 per cent greater than in 1902, while the losses per loss-taking company were 152.4 per cent greater. The 7 large companies which reported a deficit for 1907 (see p. 123) were responsible for much of the increase in the average loss per company from 1902 to 1907.

It is the practice of railway companies to regard taxes, interest, and rentals paid lessor companies as fixed charges, and they have therefore been deducted from the gross income in order to secure the net income from which the dividends and surplus are obtained. The interest on bonds, however, is as truly a part of the return to railway investors as dividends. Rentals paid lessor companies are also a return to the capital invested in the industry, because they become interest and dividends on the securities of the lessor companies. There are numerous cases in which the operating and lessor companies are virtually owned by the same persons. Therefore a combination of the accounts for operating and lessor companies, as given in Tables 96 and 106, is necessary in order to arrive at the total disbursements in the form of interest and dividends.

While there were proportionately greater charges against the gross income of operating companies in 1907 than in 1902, with the result that net income represented a smaller percentage of gross income, the holders of capital stock fared better in the division of the net income, as in 1902 slightly less than 52 per cent of the net income was appropriated for dividends, while nearly 66 per cent of the net income in 1907 was used for this purpose.

The increased payments of dividends[1] at this census caused a decrease of 5.6 per cent in the amount of surplus reported, as compared with 1902. Certain charges or adjustments are generally made from the surplus for the year, but as there is a lack of uniformity among the individual companies both as regards the practice itself and as regards the charges or adjustments to be made, the census statistics relating to general income account do not carry the analysis further than the surplus.

Condensed income account of operating companies, by states and geographic divisions.—A clear understanding of the financial operations for the census years requires a study of the statistics for the separate companies, but it is impracticable and contrary to the practice of the Bureau of the Census to publish separately the financial data furnished by any company. The grouping by states and geographic divisions, which is given in Table 104, localizes the statistics to some extent.

[1] For detailed analysis of dividends, see p. 100.

This table shows the operating earnings, and, in addition to the other items of the condensed income account, it gives the net income of all companies reporting net income and the total deficit of all companies reporting a deficit. The net result of the year's operations, whether a profit or a loss, is one of the most important facts to be obtained from the financial statistics. While in all but a few of the states some companies reported a deficit at both censuses, in only 1 state—New Jersey—does the total deficit for 1907 exceed the net income of the companies reporting a profit. For each of the other states a net profit was reported for all companies considered as a whole. Of the companies in New Jersey reporting financial data, 16 reported deficits and 8 net income balances. Several of the largest railway companies in the country returned a large net deficit for the year's operation, but, with the exception mentioned, the net income balances of other companies were sufficient in every state to overcome the deficit.

The states showing the largest deficits are New York, California, Pennsylvania, and Illinois, in the order named, and 6 companies in these states—2 each in Pennsylvania and Illinois and 1 each in New York and California—show nearly six-tenths of the total deficit for the United States. The causes operating to produce these deficits can be traced in some cases to large payments in rentals to lessor companies. The earthquake and fire of 1906 in San Francisco entailed a heavy expense and curtailed revenues for the lines of that city in 1907. Some of the roads reporting deficits are in the hands of receivers, and others are new roads which have not reached their normal operating footing. Minnesota is the only state where no company reported a deficit in either 1907 or 1902. Connecticut, Kansas, Minnesota, and South Carolina had no company reporting a deficit in 1907, and Georgia, Minnesota, West Virginia, and Wisconsin, none in 1902.

The following statement shows the per cent distribution, by geographic divisions, of the net income of companies reporting net income and of the deficit of companies reporting deficits for 1907 and 1902:

Per cent distribution of net income and net deficit balances of operating companies, by geographic divisions: 1907 and 1902.

DIVISION.	NET INCOME OF COMPANIES REPORTING NET INCOME.		NET DEFICIT OF COMPANIES REPORTING DEFICIT.	
	1907	1902	1907	1902
United States	100.0	100.0	100.0	100.0
North Atlantic	30.0	44.1	58.3	52.6
South Atlantic	10.8	5.7	2.0	6.2
North Central	37.8	33.4	20.7	37.9
South Central	0.3	5.8	2.3	1.5
Western	12.1	11.0	16.6	1.8

The states of the North Atlantic division show a decrease in their proportion of the total net income of

companies reporting net income from 44.1 per cent in 1902 to 30 per cent in 1907, while the other divisions all show gains. On the other hand, the states of the North Atlantic, South Central, and Western divisions show gains in their proportions of the total deficit of companies reporting deficits.

The surplus account (net income less dividends) shows a deficit for 7 states in 1907; but these deficits are inconsiderable, except for California, New Jersey, Pennsylvania, and New York. The last 3 of these states are responsible for a net deficit of nearly one-half million dollars for the North Atlantic division.

Condensed income account of operating companies reporting net income and net deficit, respectively.—The total deficit of companies reporting a deficit has been previously considered in connection with the net income for all companies. A presentation of the full income account for the companies that operated at a loss, however, permits a closer analysis of the statistics, and shows some interesting variations when compared with the totals for companies operating at a profit, especially in the percentages that show the distribution of gross income.

TABLE 91.—CONDENSED INCOME ACCOUNT OF OPERATING COMPANIES REPORTING NET INCOME AND NET DEFICIT, RESPECTIVELY: 1907 AND 1902.

ACCOUNT.	TOTAL, ALL COMPANIES.		COMPANIES REPORTING NET INCOME.[1]		COMPANIES REPORTING NET DEFICIT.	
	1907	1902	1907	1902	1907	1902
Number of companies	[2] 939	[3] 700	672	566	267	233
Gross income	$429,744,254	$250,504,627	$334,366,519	$217,753,909	$95,377,735	$32,750,718
Operating earnings	418,187,858	247,553,909	324,030,690	216,370,744	93,557,168	31,183,255
Operating expenses	251,309,252	142,312,597	190,734,840	121,264,907	60,574,412	21,047,690
Net earnings from operation	166,878,606	105,241,402	133,895,850	95,105,837	32,982,756	10,135,565
Miscellaneous income	11,556,396	2,950,628	9,735,829	1,383,105	1,820,567	1,567,463
Gross income, less operating expenses	178,435,002	108,192,030	143,631,679	96,489,002	34,803,323	11,703,028
Deductions from income, total	138,094,716	77,595,053	92,420,698	62,136,318	45,665,018	15,458,735
Taxes	19,755,602	13,078,899	15,974,845	11,354,983	3,780,757	1,723,916
Interest	63,740,744	38,085,911	49,161,890	30,917,983	14,578,854	7,167,928
On funded debt	53,766,525	35,223,284	41,865,583	29,081,596	11,900,942	6,141,688
On other debt	9,974,219	2,862,627	7,296,307	1,836,387	2,677,912	1,026,240
Rent of leased lines and terminals	48,022,596	25,518,225	21,315,583	19,157,541	26,707,013	6,360,084
Miscellaneous deductions	6,575,774	912,018	5,977,380	705,811	598,394	206,207
Net income	40,340,286	30,596,977	51,201,981	34,352,684	[4] 10,861,695	[4] 3,755,707
Dividends	26,454,732	15,882,110	26,444,087	15,775,079	9,745	107,031
Surplus	13,885,554	14,714,867	24,756,994	18,577,605	[5] 10,871,440	[5] 3,862,738

[1] Includes 4 companies in 1907 and 1 in 1902 which reported neither profit nor loss.
[2] Exclusive of 6 companies which failed to furnish this information.
[3] Exclusive of 18 companies which failed to furnish this information.
[4] Net deficit.
[5] Total deficit.

TABLE 92.—*Per cent distribution, by accounts, of gross income of operating companies reporting net income and net deficit, respectively: 1907 and 1902.*

ACCOUNT.	PER CENT OF GROSS INCOME.					
	Total, all companies.		Companies reporting net income.		Companies reporting net deficit.	
	1907	1902	1907	1902	1907	1902
Gross income	100.0	100.0	100.0	100.0	100.0	100.0
Operating expenses	58.5	56.8	57.0	55.7	63.5	64.3
Deductions from income, total	32.1	31.0	27.6	28.5	47.9	47.2
Taxes	4.6	5.2	4.8	5.2	4.0	5.3
Interest	14.8	15.2	14.7	14.2	15.3	21.9
On funded debt	12.5	14.1	12.5	13.4	12.5	18.8
On other debt	2.3	1.1	2.2	0.8	2.8	3.1
Rent of leased lines and terminals	11.2	10.2	6.4	8.8	28.0	19.4
Miscellaneous deductions	1.5	0.4	1.8	0.3	0.6	0.6
Dividends	6.2	6.3	7.9	7.2	(1)	0.3
Surplus	3.2	5.9	7.4	8.5	[2] 11.4	[2] 11.8

[1] Less than one-tenth of 1 per cent.
[2] Deficit (see Table 91).

There were 34 more companies in 1907 than in 1902 that reported annual expenses in excess of income. The relative importance of this group of companies had also increased, as it contributed over one-fifth of the gross income for all companies as compared with only a little over one-eighth in 1902. These companies show a higher proportion of gross income in the interest account, and a much higher proportion for operating expenses and rent of leased lines and terminals, than do the companies reporting a net income. The increases for interest and rentals cause a very high ratio for fixed charges or deductions from income—almost one-half of the gross income as compared with a little over one-fourth for the companies operated at a profit. The statistics of a few large companies go far to make up these large totals for operating expenses and rentals, in which companies reporting net losses differ chiefly from companies reporting net income. Indeed, one may well go further and point to the preponderant influence of 1 railway company in New York. This company reported nearly 40 per cent of the total rentals, more than 30 per cent of the total deficit, and about 18 per cent of the operating expenses reported by the companies of this group. These figures go far to explain not only the large totals for the group as a whole, but also the peculiar financial operations of which the New York company is the highly complicated result. The statistics of this and the other 5 companies mentioned on page 122, combined with the statistics of 1 large company in New Jersey, account for almost 95 per cent of the total rentals paid by the 267 companies operating at a loss, and the aggregate amount of their deficits accounts for nearly 61 per cent of the deficits of the group. Yet they reported

both much greater per company in 1907 than in 1902. Thus the net profit per company reporting a profit was $76,650 in 1907 as compared with only $60,801 in 1902, while the net loss per company reporting loss was $40,681 in 1907 as compared with only $16,119 in 1902. The gains per company in 1907 were 26.1 per cent greater than in 1902, while the losses per loss-taking company were 152.4 per cent greater. The 7 large companies which reported a deficit for 1907 (see p. 123) were responsible for much of the increase in the average loss per company from 1902 to 1907.

It is the practice of railway companies to regard taxes, interest, and rentals paid lessor companies as fixed charges, and they have therefore been deducted from the gross income in order to secure the net income from which the dividends and surplus are obtained. The interest on bonds, however, is as truly a part of the return to railway investors as dividends. Rentals paid lessor companies are also a return to the capital invested in the industry, because they become interest and dividends on the securities of the lessor companies. There are numerous cases in which the operating and lessor companies are virtually owned by the same persons. Therefore a combination of the accounts for operating and lessor companies, as given in Tables 96 and 106, is necessary in order to arrive at the total disbursements in the form of interest and dividends.

While there were proportionately greater charges against the gross income of operating companies in 1907 than in 1902, with the result that net income represented a smaller percentage of gross income, the holders of capital stock fared better in the division of the net income, as in 1902 slightly less than 52 per cent of the net income was appropriated for dividends, while nearly 66 per cent of the net income in 1907 was used for this purpose.

The increased payments of dividends[1] at this census caused a decrease of 5.6 per cent in the amount of surplus reported, as compared with 1902. Certain charges or adjustments are generally made from the surplus for the year, but as there is a lack of uniformity among the individual companies both as regards the practice itself and as regards the charges or adjustments to be made, the census statistics relating to general income account do not carry the analysis further than the surplus.

Condensed income account of operating companies, by states and geographic divisions.—A clear understanding of the financial operations for the census years requires a study of the statistics for the separate companies, but it is impracticable and contrary to the practice of the Bureau of the Census to publish separately the financial data furnished by any company. The grouping by states and geographic divisions, which is given in Table 104, localizes the statistics to some extent.

[1] For detailed analysis of dividends, see p. 100.

This table shows the operating earnings, and, in addition to the other items of the condensed income account, it gives the net income of all companies reporting net income and the total deficit of all companies reporting a deficit. The net result of the year's operations, whether a profit or a loss, is one of the most important facts to be obtained from the financial statistics. While in all but a few of the states some companies reported a deficit at both censuses, in only 1 state—New Jersey—does the total deficit for 1907 exceed the net income of the companies reporting a profit. For each of the other states a net profit was reported for all companies considered as a whole. Of the companies in New Jersey reporting financial data, 16 reported deficits and 8 net income balances. Several of the largest railway companies in the country returned a large net deficit for the year's operation, but, with the exception mentioned, the net income balances of other companies were sufficient in every state to overcome the deficit.

The states showing the largest deficits are New York, California, Pennsylvania, and Illinois, in the order named, and 6 companies in these states—2 each in Pennsylvania and Illinois and 1 each in New York and California—show nearly six-tenths of the total deficit for the United States. The causes operating to produce these deficits can be traced in some cases to large payments in rentals to lessor companies. The earthquake and fire of 1906 in San Francisco entailed a heavy expense and curtailed revenues for the lines of that city in 1907. Some of the roads reporting deficits are in the hands of receivers, and others are new roads which have not reached their normal operating footing. Minnesota is the only state where no company reported a deficit in either 1907 or 1902. Connecticut, Kansas, Minnesota, and South Carolina had no company reporting a deficit in 1907, and Georgia, Minnesota, West Virginia, and Wisconsin, none in 1902.

The following statement shows the per cent distribution, by geographic divisions, of the net income of companies reporting net income and of the deficit of companies reporting deficits for 1907 and 1902:

Per cent distribution of net income and net deficit balances of operating companies, by geographic divisions: 1907 and 1902.

DIVISION.	NET INCOME OF COMPANIES REPORTING NET INCOME.		NET DEFICIT OF COMPANIES REPORTING DEFICIT.	
	1907	1902	1907	1902
United States	100.0	100.0	100.0	100.0
North Atlantic	30.0	44.1	58.3	52.6
South Atlantic	10.8	5.7	2.0	6.2
North Central	37.8	33.4	20.7	37.9
South Central	9.3	5.8	2.3	1.5
Western	12.1	11.0	16.6	1.8

The states of the North Atlantic division show a decrease in their proportion of the total net income of

companies reporting net income from 44.1 per cent in 1902 to 30 per cent in 1907, while the other divisions all show gains. On the other hand, the states of the North Atlantic, South Central, and Western divisions show gains in their proportions of the total deficit of companies reporting deficits.

The surplus account (net income less dividends) shows a deficit for 7 states in 1907; but these deficits are inconsiderable, except for California, New Jersey, Pennsylvania, and New York. The last 3 of these states are responsible for a net deficit of nearly one-half million dollars for the North Atlantic division.

Condensed income account of operating companies reporting net income and net deficit, respectively.—The total deficit of companies reporting a deficit has been previously considered in connection with the net income for all companies. A presentation of the full income account for the companies that operated at a loss, however, permits a closer analysis of the statistics, and shows some interesting variations when compared with the totals for companies operating at a profit, especially in the percentages that show the distribution of gross income.

TABLE 91.—CONDENSED INCOME ACCOUNT OF OPERATING COMPANIES REPORTING NET INCOME AND NET DEFICIT, RESPECTIVELY: 1907 AND 1902.

ACCOUNT.	TOTAL, ALL COMPANIES.		COMPANIES REPORTING NET INCOME.[1]		COMPANIES REPORTING NET DEFICIT.	
	1907	1902	1907	1902	1907	1902
Number of companies	[2] 939	[3] 799	672	566	267	233
Gross income	$429,744,254	$250,504,627	$334,366,519	$217,753,909	$95,377,735	$32,750,718
Operating earnings	418,187,858	247,553,999	324,630,600	216,370,744	93,557,168	31,183,255
Operating expenses	251,309,252	142,312,597	190,734,840	121,264,907	60,574,412	21,047,690
Net earnings from operation	166,878,606	105,241,402	133,895,850	95,105,837	32,982,756	10,135,565
Miscellaneous income	11,556,396	2,950,628	9,735,829	1,383,165	1,820,567	1,567,403
Gross income, less operating expenses	178,435,002	108,192,030	143,631,679	96,489,002	34,803,323	11,703,028
Deductions from income, total	138,094,716	77,595,053	92,429,698	62,136,318	45,665,018	15,458,735
Taxes	19,755,602	13,078,899	15,974,845	11,354,983	3,780,757	1,723,916
Interest	63,740,744	38,085,911	49,161,890	30,917,983	14,578,854	7,167,928
On funded debt	53,766,525	35,223,284	41,865,583	29,081,596	11,900,942	6,141,688
On other debt	9,974,219	2,862,627	7,296,307	1,836,387	2,677,912	1,026,240
Rent of leased lines and terminals	48,022,596	25,518,225	21,315,583	19,157,541	26,707,013	6,360,684
Miscellaneous deductions	6,575,774	912,018	5,977,380	705,811	598,394	206,207
Net income	40,340,286	30,596,977	51,201,981	34,352,684	[4] 10,861,695	[4] 3,755,707
Dividends	26,454,732	15,882,110	26,444,987	15,775,079	9,745	107,031
Surplus	13,885,554	14,714,867	24,756,994	18,577,605	[5] 10,871,440	[5] 3,862,738

[1] Includes 4 companies in 1907 and 1 in 1902 which reported neither profit nor loss.
[2] Exclusive of 6 companies which failed to furnish this information.
[3] Exclusive of 18 companies which failed to furnish this information.
[4] Net deficit.
[5] Total deficit.

TABLE 92.—*Per cent distribution, by accounts, of gross income of operating companies reporting net income and net deficit, respectively: 1907 and 1902.*

ACCOUNT.	PER CENT OF GROSS INCOME.					
	Total, all companies.		Companies reporting net income.		Companies reporting net deficit.	
	1907	1902	1907	1902	1907	1902
Gross income	100.0	100.0	100.0	100.0	100.0	100.0
Operating expenses	58.5	56.8	57.0	55.7	63.5	64.3
Deductions from income, total	32.1	31.0	27.6	28.5	47.9	47.2
Taxes	4.6	5.2	4.8	5.2	4.0	5.3
Interest	14.8	15.2	14.7	14.2	15.3	21.9
On funded debt	12.5	14.1	12.5	13.4	12.5	18.8
On other debt	2.3	1.1	2.2	0.8	2.8	3.1
Rent of leased lines and terminals	11.2	10.2	6.4	8.8	28.0	19.4
Miscellaneous deductions	1.5	0.4	1.8	0.3	0.6	0.6
Dividends	6.2	6.3	7.9	7.2	(1)	0.3
Surplus	3.2	5.9	7.4	8.5	[2] 11.4	[2] 11.8

[1] Less than one-tenth of 1 per cent.
[2] Deficit (see Table 91).

There were 34 more companies in 1907 than in 1902 that reported annual expenses in excess of income. The relative importance of this group of companies had also increased, as it contributed over one-fifth of the gross income for all companies as compared with only a little over one-eighth in 1902. These companies show a higher proportion of gross income in the interest account, and a much higher proportion for operating expenses and rent of leased lines and terminals, than do the companies reporting a net income. The increases for interest and rentals cause a very high ratio for fixed charges or deductions from income—almost one-half of the gross income as compared with a little over one-fourth for the companies operated at a profit. The statistics of a few large companies go far to make up these large totals for operating expenses and rentals, in which companies reporting net losses differ chiefly from companies reporting net income. Indeed, one may well go further and point to the preponderant influence of 1 railway company in New York. This company reported nearly 40 per cent of the total rentals, more than 30 per cent of the total deficit, and about 18 per cent of the operating expenses reported by the companies of this group. These figures go far to explain not only the large totals for the group as a whole, but also the peculiar financial operations of which the New York company is the highly complicated result. The statistics of this and the other 5 companies mentioned on page 122, combined with the statistics of 1 large company in New Jersey, account for almost 95 per cent of the total rentals paid by the 267 companies operating at a loss, and the aggregate amount of their deficits accounts for nearly 61 per cent of the deficits of the group. Yet they reported

less than 8 per cent of the trackage reported by all companies and slightly more than one-fourth of the total leased track. Of all companies reporting net deficits in 1907 only 24, including 6 of the 7 large companies mentioned, show payments on account of rent of leased lines and terminals, the total of such payments being equivalent to more than one-fourth of the gross income for this group of companies. In 1902, 17 companies showing a net deficit reported payments on account of lease obligations, these payments representing almost one-fifth of the gross income. More than nine-tenths of the total payments on this account in 1902 were made by 2 companies.

It will be noted that the companies reporting net deficits also paid some dividends—3 companies in 1907 and 5 in 1902—but in some cases the deficit balances for these companies were very small, and in the other cases the dividends were for part of the year only.

A segregation of the statistics for companies reporting deficits, by geographic divisions, shows that the bulk of the deficit is contributed by companies in the North Atlantic states.

TABLE 93.—INCOME, OPERATING EXPENSES, DEDUCTIONS FROM INCOME, AND DEFICIT OF COMPANIES REPORTING NET DEFICIT, BY GEOGRAPHIC DIVISIONS: 1907 AND 1902.

DIVISION.	Census.	Number of companies.	Gross income.	Operating expenses.	Deductions from income (taxes and fixed charges).	Net deficit.
United States	1907	267	$95,377,735	$60,574,412	$45,605,018	$10,801,695
	1902	233	32,750,718	21,047,690	15,458,735	3,755,707
North Atlantic	1907	120	69,736,683	42,003,080	34,004,750	6,331,147
	1902	140	12,107,564	8,709,588	5,373,376	1,975,400
South Atlantic	1907	26	1,122,509	961,428	383,222	222,141
	1902	22	1,092,183	859,977	464,062	232,456
North Central	1907	75	14,358,999	10,055,401	6,555,632	2,252,034
	1902	44	18,790,867	10,820,471	9,395,631	1,425,235
South Central	1907	18	1,657,142	1,309,957	596,836	249,651
	1902	14	465,130	387,844	133,094	55,808
Western	1907	28	8,502,402	6,184,546	4,124,578	1,806,722
	1902	13	294,074	269,810	91,972	66,808

Condensed income account of nonoperating lessor companies.—The number of lessor companies in existence at the close of 1907 was over one and one-half times as great as the number reported for 1902, and their financial transactions have assumed large proportions. While practically the entire amount involved in the income account for these companies was paid as rental by the operating companies, its distribution is a matter of importance. Table 94 gives the income account of such companies for 1907 and 1902.

TABLE 94.—*Condensed income account of nonoperating lessor companies: 1907 and 1902.*

ACCOUNT.	1907	1902	Per cent of increase.
Number of companies	291	[1] 158	84.2
Gross income	$47,913,249	$26,138,899	83.3
Rentals from operating companies	47,500,933	26,116,884	81.9
Miscellaneous income	412,316	22,015	1,772.9
Deductions from income, total	19,465,984	8,779,294	121.7
Taxes	926,450	287,436	222.3
Interest	18,030,522	8,370,559	115.2
On funded debt	17,702,263	8,355,677	111.9
On other debt	328,259	20,882	1,472.0
Miscellaneous deductions (maintenance of organizations, etc.)	509,003	115,299	341.5
Net income	28,447,265	17,359,605	63.9
Dividends	28,030,542	17,157,061	63.4
Surplus	416,723	202,544	105.7

[1] Exclusive of 12 companies which failed to furnish this information.

The deductions from income for the lessor companies were much greater in 1907 than in 1902. The increase is found chiefly in the item of interest on funded debt. The increase in expenses has reduced the proportionate amounts available for dividends.

TABLE 95.—*Per cent distribution, by accounts, of gross income of nonoperating lessor companies: 1907 and 1902.*

ACCOUNT.	PER CENT OF GROSS INCOME.	
	1907	1902
Gross income	100.0	100.0
Deductions from income, total	40.6	33.6
Taxes	1.9	1.1
Interest	37.6	32.1
On funded debt	36.9	32.0
On other debt	0.7	0.1
Miscellaneous deductions	1.1	0.4
Dividends	58.5	65.6
Surplus	0.9	0.8

The income of the lessor companies from rentals increased 81.9 per cent between 1902 and 1907 (Table 94), while the earnings from operation shown for operating companies (Table 89) increased only 68.9 per cent. Similarly, the net income of the lessor companies increased 63.9 per cent, while the net income of the operating companies increased only 31.8 per cent. In the matter of dividends, however, the percentages of increase were nearly equal, and that of the operating companies was, by contrast, greater than that of the lessor companies, the percentages being, respectively, 66.6 and 63.4.

The nonoperating lessor companies reported for 1907 were located in 21 states and those reported for 1902 in 12 states. The income account for the different state groups of these companies is shown in Table 105.

The lessor companies are largely concentrated in the North Atlantic and North Central states, especially in

Pennsylvania and New York. In Pennsylvania in 1907 there were 140 lessor companies as compared with 122 operating companies; and in 1902, 86 lessor companies and 98 operating companies. A grouping of the statistics by geographic divisions can not be made without disclosing the financial data of some of the individual companies, but the companies are distributed as follows:

Number of lessor companies, by geographic divisions: 1907 and 1902.

DIVISION.	1907	1902
United States	201	[1] 158
North Atlantic	230	142
North Central	47	13
South Atlantic	10	2
South Central	1	.....
Western	3	1

[1] Exclusive of 12 companies which failed to furnish financial information.

The states of the North Atlantic division reported in 1907 nearly 80 per cent of the lessor companies and a little over 80 per cent of the gross income for those companies. The large number of lessor companies in Pennsylvania is due, to a considerable extent, to state laws which are unfavorable to a direct merger or consolidation of railway companies.

Condensed income account of operating and lessor companies combined.—A combination of the income accounts of the operating and lessor companies as given in Table 96 is necessary in order to show the aggregates for the financial transactions of the street and electric railway companies of the United States. In preparing this combined income account it is necessary to eliminate the duplication due to the rentals paid to the lessor companies by the operating companies. The amounts reported by the lessor companies as received do not in all cases agree with the amount of rental reported as paid by the operating companies, a difference due primarily to the different methods of accounting in use by the two classes of companies. It is known that in some cases not all of the rental reported by the lessee company was actually paid, the lessee defaulting on part of its lease obligations; but in order to give a true income and expense account it was proper to tabulate the full amount of the obligations rather than the cash items. In other cases the excess of the rental income reported by the lessor company over the amount reported as paid for rental by the operating company was due to the fact that the latter represented cash paid while the former represented book entries, the difference being adjusted when the books of the company were finally closed during the succeeding year. In other cases the reports of the related operating and lessor companies do not cover the same period of time.

In order that the figures might be comparable, the rentals received by the lessor companies in 1907 were deducted from the income side of the account and a like amount deducted from the fixed charges. Any rental expense remaining, therefore, represented rental paid other operating companies—steam railroads, etc. The rental paid to the cities of New York and Boston for the subways is treated as a miscellaneous deduction from income, rather than as a rental, as it is not accounted for as income in a report for a lessor company.

TABLE 96.—*Condensed income account of operating and lessor companies combined: 1907 and 1902.*

ACCOUNT.	1907	1902	Per cent of increase.
Number of companies	[1] 1,230	[2] 957	28.5
Gross income	$430,156,570	$250,526,642	71.7
Operating earnings	418,187,858	247,553,990	68.9
Operating expenses	251,309,252	142,312,597	76.6
Net earnings from operation	166,878,606	105,241,402	58.6
Miscellaneous income	11,968,712	2,972,643	302.6
Gross income, less operating expenses	178,847,318	108,214,045	65.3
Deduction from income, total	110,059,767	60,849,231	80.9
Taxes	20,682,061	13,366,335	54.7
Interest	81,771,266	46,462,470	76.0
On funded debt	71,468,788	43,578,961	64.0
On other debt	10,302,478	2,883,509	257.3
Miscellaneous deductions	[3] 7,606,440	1,020,426	645.4
Net income	68,787,551	47,364,814	45.2
Dividends	54,485,274	33,039,171	64.9
Surplus	14,302,277	14,325,643	[4] 0.2

[1] Exclusive of 6 companies which failed to furnish this information.
[2] Exclusive of 30 companies which failed to furnish this information.
[3] Includes rentals paid to other operating companies, steam railroads, etc.
[4] Decrease.

The amounts reported by the operating companies form by far the largest proportion of the totals given in this table, and largely control the percentages of increase for the majority of the items, which agree very closely with the corresponding percentages for operating companies in Table 89. The principal differences in the percentages are shown for interest, miscellaneous deductions from income, and net income. A combination of the accounts for operating and lessor companies, however, changes the relative distribution of gross income as compared with the corresponding distribution for operating companies.

TABLE 97.—*Per cent distribution, by accounts, of gross income of operating and lessor companies combined: 1907 and 1902.*

	PER CENT OF GROSS INCOME.	
	1907	1902
Gross income	100.0	100.0
Operating expenses	58.4	56.8
Deductions from income, total	25.6	24.3
Taxes	4.8	5.3
Interest	19.0	18.6
On funded debt	16.6	17.4
On other debt	2.4	1.2
Miscellaneous deductions	1.8	0.4
Dividends	12.7	13.2
Surplus	3.3	5.7

The percentage of the gross income required to meet operating expenses increased from 1902 to 1907 and is practically the same as that shown for operating companies in Table 90.

The percentage required for fixed charges is considerably less than in the case of operating companies alone, but the increase in this percentage from 1902 to 1907 was slightly greater than for the operating companies. A much larger percentage of the gross income

of operating and lessor companies combined was distributed in the form of dividends than was the case for operating companies alone, and the reduction in this proportion from 1902 to 1907 was somewhat greater for the two classes combined than for the operating companies.

The statistics of the income account for operating and lessor companies combined are given by states in Table 106, but only those states are shown for which the statistics of the lessor companies are given in Table 105. In Table 106 the duplication on account of rentals has not been eliminated, the amount paid by operating companies appearing as an expense and the amount received by the lessor companies as income.

Condensed income account of operating companies, classified according to income from railway operations.—There is considerable variation in the relative importance of the various items of the income account for companies of different sizes. A study of the statistics shows a relatively higher rate of increase in gross income for the larger companies, with a lowering in the proportion required to meet operating expenses in 1907 as compared with 1902, and an increase in the proportion required for deductions from income.

Table 98 is a comparative income account for operating companies, classified according to income from railway operations, for 1907 and 1902.

TABLE 98.—CONDENSED INCOME ACCOUNT OF OPERATING COMPANIES, CLASSIFIED ACCORDING TO INCOME FROM RAILWAY OPERATIONS: 1907 AND 1902.

ACCOUNT.	Census.	Total, all companies.	CLASSIFICATION GROUP.									
			$1,000,000 and over. (A)	$500,000 but less than $1,000,000. (B)	$250,000 but less than $500,000. (C)	$100,000 but less than $250,000. (D)	Less than $100,000. (E)	Per cent of total.				
								A	B	C	D	E
Number of companies	1907	[1] 939	76	50	80	182	551	8.1	5.3	8.5	19.4	58.7
	1902	[2] 799	44	28	53	112	562	5.5	3.5	6.6	14.0	70.3
Per cent of increase		17.5	72.7	78.6	50.9	62.5	[3] 2.0					
Gross income	1907	$420,744,254	$303,071,003	$38,644,582	$30,817,666	$33,484,518	$23,726,485	70.5	9.0	7.2	7.8	5.5
	1902	$250,504,627	$170,328,500	$20,564,031	$19,293,032	$19,495,576	$20,823,488	68.0	8.2	7.7	7.8	8.3
Per cent of increase		71.6	77.9	87.9	59.7	71.8	13.9					
Operating earnings	1907	$418,187,858	$297,062,346	$36,507,437	$30,210,402	$31,752,493	$22,565,180	71.0	8.8	7.2	7.6	5.4
	1902	$247,553,999	$167,743,251	$20,531,216	$19,212,160	$19,440,952	$20,626,420	67.8	8.3	7.8	7.9	8.3
Per cent of increase		68.9	77.1	78.3	57.2	63.3	9.4					
Operating expenses	1907	$251,309,252	$173,358,511	$22,278,981	$19,065,080	$20,341,738	$16,264,942	69.0	8.9	7.6	8.1	6.5
	1902	$142,312,597	$91,842,001	$11,848,332	$11,506,202	$12,506,786	$14,609,186	64.5	8.3	8.1	8.8	10.3
Per cent of increase		76.6	88.8	88.1	65.7	62.7	11.3					
Net earnings from operation	1907	$166,878,606	$123,703,835	$14,318,456	$11,145,322	$11,410,755	$6,300,238	74.1	8.6	6.7	6.8	3.8
	1902	$105,241,402	$75,901,250	$8,682,884	$7,705,868	$6,934,166	$6,017,234	72.1	8.3	7.3	6.6	5.7
Per cent of increase		58.6	63.0	64.9	44.6	64.6	4.7					
Miscellaneous income	1907	$11,556,306	$6,008,657	$2,047,145	$607,264	$1,732,025	$1,161,305	52.0	17.7	5.3	15.0	10.0
	1902	$2,950,628	$2,585,249	$32,815	$80,872	$54,624	$197,068	87.6	1.1	2.7	1.9	6.7
Per cent of increase		291.7	132.4	6,138.4	650.9	3,070.8	489.3					
Gross income, less operating expenses	1907	$178,435,002	$129,712,492	$16,365,601	$11,752,586	$13,142,780	$7,461,543	72.7	9.2	6.6	7.4	4.2
	1902	$108,192,030	$78,486,499	$8,715,699	$7,786,740	$6,988,790	$6,214,302	72.5	8.1	7.2	6.5	5.7
Per cent of increase		64.9	65.3	87.8	50.9	88.1	20.1					
Deductions from income, total	1907	$138,094,710	$102,004,702	$12,091,065	$8,820,046	$9,067,818	$6,111,085	73.9	8.8	6.4	6.6	4.4
	1902	$77,505,053	$56,819,948	$5,799,751	$5,136,642	$5,016,268	$4,822,444	73.2	7.5	6.6	6.5	6.2
Per cent of increase		78.0	79.5	108.5	71.7	80.8	26.7					
Taxes	1907	$19,755,602	$15,524,362	$1,426,864	$1,052,242	$1,071,560	$680,574	78.6	7.2	5.3	5.4	3.4
	1902	$13,078,899	$10,326,341	$879,446	$639,745	$650,056	$603,311	79.0	6.7	4.7	5.0	4.6
Per cent of increase		51.0	50.3	62.2	69.8	64.8	12.8					
Interest	1907	$63,740,744	$35,648,870	$8,657,223	$6,845,069	$7,373,255	$5,216,327	55.9	13.6	10.7	11.6	8.2
	1902	$38,085,911	$21,706,528	$4,352,352	$3,867,059	$4,017,234	$4,052,738	57.2	11.4	10.2	10.5	10.6
Per cent of increase		67.4	63.6	98.9	77.0	83.5	28.7					
On funded debt	1907	$53,766,525	$30,105,669	$7,035,156	$5,678,834	$6,534,654	$4,412,212	56.0	13.1	10.6	12.2	8.2
	1902	$35,223,284	$20,711,446	$3,844,873	$3,478,447	$3,687,086	$3,501,432	58.8	10.9	9.9	10.5	9.9
Per cent of increase		52.6	45.4	83.0	63.3	77.2	26.0					
On other debt	1907	$9,974,219	$5,543,201	$1,622,067	$1,166,235	$838,601	$804,115	55.6	16.3	11.7	8.4	8.1
	1902	$2,862,627	$1,085,082	$507,479	$388,612	$330,148	$551,306	37.9	17.7	13.6	11.5	19.3
Per cent of increase		248.4	410.9	219.6	200.1	154.0	45.9					
Rent of leased lines and terminals	1907	$48,022,596	$45,188,356	$1,629,743	$672,794	$449,708	$81,995	94.1	3.4	1.4	0.9	0.2
	1902	$25,518,225	$24,296,050	$492,650	$430,275	$193,794	$105,456	95.2	1.9	1.7	0.8	0.4
Per cent of increase		88.2	86.0	230.8	56.4	132.1	[3] 22.2					
Miscellaneous deductions	1907	$6,575,774	$5,643,114	$377,235	$249,041	$173,295	$132,189	85.8	5.7	3.8	2.6	2.0
	1902	$912,018	$401,029	$75,303	$219,563	$155,184	$60,939	44.0	8.3	24.1	17.0	6.7
Per cent of increase		621.0	1,307.2	401.0	13.8	11.7	116.9					
Net income	1907	$40,340,286	$27,707,790	$4,274,536	$2,932,540	$4,074,962	$1,350,458	68.7	10.6	7.3	10.1	3.3
	1902	$30,596,977	$21,666,551	$2,915,948	$2,650,098	$1,972,522	$1,391,858	70.8	9.5	8.7	6.4	4.5
Per cent of increase		31.8	27.9	46.6	10.7	106.6	[3] 3.0					
Dividends	1907	$26,454,732	$20,819,820	$2,290,890	$1,630,423	$1,181,350	$532,249	78.7	8.7	6.2	4.5	2.0
	1902	$15,882,110	$12,174,336	$1,523,462	$818,717	$840,406	$525,189	76.6	9.6	5.2	5.3	3.3
Per cent of increase		66.6	71.0	50.4	99.1	40.6	1.3					
Surplus	1907	$13,885,554	$6,887,970	$1,983,646	$1,302,117	$2,893,612	$818,209	49.6	14.3	9.4	20.8	5.9
	1902	$14,714,867	$9,492,215	$1,392,486	$1,831,381	$1,132,116	$866,669	64.5	9.5	12.4	7.7	5.9
Per cent of increase		[3] 5.6	[3] 27.4	42.5	[3] 28.9	155.6	[3] 5.6					

[1] Exclusive of 6 companies which failed to furnish this information. [2] Exclusive of 18 companies which failed to furnish this information. [3] Decrease.

The largest amounts of increase, and as a rule the largest percentages of increase, are shown for the largest companies, those belonging to Classes A and B. The gross income and dividends of these companies taken together also formed a larger percentage of the total gross income and dividends, respectively, of all companies in 1907 than in 1902, while the deductions from income for these classes represented a larger part of the total deductions from income reported at the present census than at the earlier one. The other classes showed, as a rule, decreased percentages of the totals for these items.

Table 99 shows the percentage relation of the accounting items of operating companies to the gross income, the companies being classified according to their income from railway operation.

TABLE 99.—PER CENT DISTRIBUTION, BY ACCOUNTS, OF GROSS INCOME OF OPERATING COMPANIES, CLASSIFIED ACCORDING TO INCOME FROM RAILWAY OPERATIONS: 1907 AND 1902.

ACCOUNT.	PER CENT OF GROSS INCOME.											
	Total, all companies.		Classification group.									
			$1,000,000 and over. (A)		$500,000 but less than $1,000,000. (B)		$250,000 but less than $500,000 (C)		$100,000 but less than $250,000. (D)		Less than $100,000. (E)	
	1907	1902	1907	1902	1907	1902	1907	1902	1907	1902	1907	1902
Gross income	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Operating expenses	58.5	56.8	57.2	53.9	57.7	57.6	61.9	59.6	60.7	64.2	68.6	70.2
Deductions from income, total	32.1	31.0	33.7	33.4	31.3	28.2	28.6	26.6	27.1	25.7	25.8	23.2
Taxes	4.6	5.2	5.1	6.1	3.7	4.3	3.4	3.2	3.2	3.3	2.9	2.9
Interest	14.8	15.2	11.8	12.8	22.4	21.2	22.2	20.0	22.0	20.6	22.0	19.5
On funded debt	12.5	14.1	9.9	12.2	18.2	18.7	18.4	18.0	19.5	18.9	18.6	16.8
On other debt	2.3	1.1	1.8	0.6	4.2	2.5	3.8	2.0	2.5	1.7	3.4	2.6
Rent of leased lines and terminals	11.2	10.2	14.9	14.3	4.2	2.4	2.2	2.2	1.3	1.0	0.3	0.5
Miscellaneous deductions	1.5	0.4	1.9	0.2	1.0	0.4	0.8	1.1	0.5	0.8	0.6	0.3
Dividends	6.2	6.3	6.9	7.1	5.9	7.4	5.3	4.2	3.5	4.3	2.2	2.5
Surplus	3.2	5.9	2.3	5.6	5.1	6.8	4.2	9.5	8.6	5.8	3.4	4.2

The item called "Deductions from income" bears the highest proportion to gross income in the class of largest companies. Further analysis, however, shows that the difference in proportion is more than accounted for by the item of rentals, the larger part of which represents rentals paid to nonoperating lessor companies. Such rentals really represent not an expense of carrying on railway business, but part of the income of railway operation. So far, then, as this item in the accounts of large companies exceeds that in the smaller, it points to increased earnings in large centers of population, rather than to increased cost of carrying on the business. The per cent ratio of the total deductions to the gross income increases without a break from class to class, low (25.8) in Class E to high (33.7) in Class A, and is larger for each class in 1907 than in 1902. Analysis of the deductions for 1907, however, shows that the per cent ratio of interest charges to gross income is practically constant at about 22 in all classes except that of the largest companies, in which the per cent ratio drops sharply to 11.8, and that in every class the ratio is little changed between 1902 and 1907; while, by a sharp contrast, the rental charge ratio increases from class to class, with a surprisingly large increase in Class A, and in only one class, that of the smallest companies, was there a fall in the ratio from 1902 to 1907. Again, the obvious deduction seems to be that increase in earnings of electric-railway operation is very frequently charged to the account of rentals, and that this financial policy has been one of the most characteristic phenomena of recent railway development.

In the following statement the percentage ratios of "Deductions from income" to gross income are further analyzed, for all classes of companies, to show the ratios for taxes and for interest and rentals combined:

Per cent ratios of itemized deductions from income to gross income of operating companies, classified according to income from railway operations: 1907 and 1902.

CLASSIFICATION GROUP.	ALL DEDUCTIONS FROM INCOME.		PER CENT OF GROSS INCOME.			
			Taxes.		Interest and rentals.	
	1907	1902	1907	1902	1907	1902
Total, all companies	32.1	31.0	4.6	5.2	26.0	25.4
Class A	33.7	33.4	5.1	6.1	26.7	27.1
Class B	31.3	28.2	3.7	4.3	26.6	23.6
Class C	28.6	26.6	3.4	3.2	24.4	22.3
Class D	27.1	25.7	3.2	3.3	23.4	21.6
Class E	25.8	23.2	2.9	2.9	22.3	20.0

Interest and rentals are here combined, because for some comparisons it is well to treat interest as a fixed charge on account of capital invested in owned lines and rentals as a fixed charge on account of capital invested in leased lines, the two therefore representing capital charges as distinguished from capital dividends.

Regarding the matter from this point of view, it appears that the ratio of this combined capital charge to gross income increases regularly from Class E to

Class A, and that it is greater for every class in 1907 than in 1902, except in Class A, where the presence of an unusual amount of "Miscellaneous deductions" results in a corresponding decrease in both the ratios shown in the statement.

Condensed income account of operating companies with and without commercial lighting, and of part-time companies.—The generation and sale of electricity for purposes other than the operation of the railway necessarily has some effect upon the proportion that the different items of income and expense represent of the respective totals. The fact that a company was in operation only a part of the year also affects its financial operations as compared with those of a company operating the entire period of twelve months.

TABLE 100.—CONDENSED INCOME ACCOUNT OF OPERATING COMPANIES WITH AND WITHOUT COMMERCIAL LIGHTING, AND OF PART-TIME COMPANIES: 1907 AND 1902.

ACCOUNT.	TOTAL, ALL COMPANIES.		CLASSIFICATION GROUP.									
			Without commercial lighting.[1]		With commercial lighting.		Part-time.		Per cent of increase.			
	1907	1902	1907	1902	1907	1902	1907	1902	Total.	Without commercial lighting.	With commercial lighting.	Part-time.
Number of companies	[2] 939	[3] 799	709	630	[4] 175	112	55	57	17.5	12.5	56.3	[5] 3.5
Gross income	$420,744,254	$260,504,627	$350,704,380	$225,011,197	$71,768,709	$22,418,065	$1,271,159	$2,475,365	71.6	58.1	220.1	[5] 48.6
Operating earnings	418,187,858	247,553,909	347,055,013	222,989,978	68,980,416	22,088,656	1,240,429	2,475,365	68.9	56.0	212.3	[5] 49.6
Operating expenses	251,309,252	142,312,507	208,847,845	128,038,482	41,566,582	12,834,941	894,825	1,430,174	76.6	63.1	223.9	[5] 37.8
Net earnings from operation	166,878,606	105,241,402	138,107,168	94,951,496	27,419,834	9,253,715	351,604	1,030,191	58.6	46.5	196.3	[5] 66.1
Miscellaneous income	11,556,396	2,950,628	8,749,373	2,621,210	2,782,203	329,409	24,730	.....	291.7	233.8	744.6	.....
Gross income, less operating expenses	178,435,002	108,192,030	147,856,541	97,572,715	30,202,127	9,583,124	376,334	1,030,191	64.9	51.5	215.2	[5] 63.7
Deductions from income, total	138,094,716	77,595,053	117,088,115	71,027,194	19,944,704	6,007,847	461,897	560,012	78.0	65.7	232.0	[5] 17.5
Taxes	19,755,602	13,078,899	16,755,648	12,294,585	2,976,684	733,575	23,270	50,739	51.0	36.3	305.8	[5] 54.1
Interest	63,740,744	38,085,911	50,534,496	32,728,041	12,782,361	4,849,800	423,887	508,070	67.4	54.4	163.6	[5] 16.6
On funded debt	53,766,525	35,223,284	42,212,111	30,168,164	11,266,199	4,619,145	288,215	435,975	52.6	39.9	143.9	[5] 33.9
On other debt	9,974,219	2,862,627	8,322,385	2,559,877	1,516,162	230,655	135,672	72,095	248.4	225.1	557.3	88.2
Rent of leased lines and terminals	48,022,596	25,518,225	45,328,842	25,476,229	2,693,754	47,413	.....	583	88.2	78.0	[5] 581.5	[6] 100.0
Miscellaneous deductions	6,575,774	912,018	5,969,129	534,339	1,491,905	377,059	14,740	620	621.0	848.7	295.7	2,277.4
Net income	40,340,286	30,596,977	30,168,426	26,545,521	10,257,423	3,575,277	[6] 85,563	476,179	31.8	13.6	186.9	.....
Dividends	26,454,732	15,882,110	22,476,056	15,022,519	3,971,059	813,091	7,617	46,500	66.6	49.6	388.4	[5] 83.6
Surplus	13,885,554	14,714,867	7,692,370	11,523,002	6,286,364	2,762,186	[7] 93,180	429,679	[5] 5.6	[5] 33.2	127.6	.....

[1] Includes all full-time operating companies not engaged in regular light and power business, without regard to kind of power used.
[2] Exclusive of 6 companies which failed to furnish this information.
[3] Exclusive of 18 companies which failed to furnish this information.
[4] Exclusive of 2 part-time companies.
[5] Decrease.
[6] Net deficit.
[7] Total deficit.

The table does not throw all the income from sale of current to the group "With commercial lighting," as there were in all 330 companies in 1907 which reported income from the sale of current, while only 175 are included in the table. The other 155 companies reported a total of $3,562,495 income from the sale of current. As this amount was not so great as to produce a perceptible effect on the operating railway accounts, and as the sales of current by the several companies were inconsiderable or in the nature of wholesaling of current, it was deemed best to include these companies as of the class "Without commercial lighting."

A classification of street and electric railway companies upon the basis employed in the table does not result in as many marked differences in the proportions of gross income represented by operating expenses and deductions from income as might be expected, although the income from sale of electric current was considerably more important in 1907 than at the former census, forming 4.8 and 3.1 per cent, respectively, of the total operating earnings at the two census periods. The companies "With commercial lighting" contributed about 17 per cent of the gross income for all companies in 1907, or nearly twice as much proportionately as in 1902, when the percentage was slightly less than 9. The percentages of increase for this class of companies range, with one exception, much higher for all items shown in Table 100 than they do for companies "Without commercial lighting."

While each group shows an increase in 1907 as compared with 1902 in the percentage of gross income required to meet operating expenses, the increase was relatively slight for companies "With commercial lighting." It will be noted that the proportion of the gross income required for rent of leased lines was much less for companies with lighting plants than for companies without. For the most part the railways which are engaged in commercial light and power business are located in the smaller cities and towns where there is very little leasing of companies.

TABLE 101.—PER CENT DISTRIBUTION, BY ACCOUNTS, OF GROSS INCOME OF OPERATING COMPANIES WITH AND WITHOUT COMMERCIAL LIGHTING, AND OF PART-TIME COMPANIES: 1907 AND 1902.

ACCOUNT.	PER CENT OF GROSS INCOME.							
	Total, all companies.		Classification group.					
			Without commercial lighting.		With commercial lighting.		Part-time.	
	1907	1902	1907	1902	1907	1902	1907	1902
Gross income	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Operating expenses	58.5	56.8	58.5	56.8	57.9	57.3	70.4	58.1
Deductions from income, total	32.1	31.0	33.0	31.5	27.8	26.8	36.3	22.6
Taxes	4.6	5.2	4.7	5.4	4.1	3.3	1.8	2.1
Interest	14.8	15.2	14.2	14.5	17.8	21.6	33.3	20.5
On funded debt	12.5	14.1	11.8	13.4	15.7	20.6	22.7	17.6
On other debt	2.3	1.1	2.3	1.1	2.1	1.0	10.7	2.9
Rent of leased lines and terminals	11.2	10.2	12.7	11.3	3.8	0.2	.....	(1)
Miscellaneous deductions	1.5	0.4	1.4	0.2	2.1	1.7	1.2	(1)
Dividends	6.2	6.3	6.3	6.7	5.5	3.6	0.6	1.9
Surplus	3.2	5.9	2.2	5.1	8.8	12.3	[2] 7.3	17.4

[1] Less than one-tenth of 1 per cent.

[2] Deficit (see Table 100).

The companies without commercial lighting plants reported a proportionately larger amount as paid out from their net income in the form of dividends, at both censuses, than did the companies engaged in both railway and lighting. It is obvious, however, that the companies with commercial lighting could have distributed as great a proportion of the gross income in dividends as did the other class—and even a greater proportion—had they pursued the same policy as to surplus, which shows as 8.8 per cent of their gross income, as compared with the 2.2 per cent for companies without commercial lighting, since the companies with commercial lighting show a far greater ratio of net income to gross income—14.3 per cent—than that of the companies without commercial lighting—8.5 per cent.

The relative importance of "Part-time" companies was less in 1907 than in 1902, the gross income of such companies falling from 1 per cent of the total for all companies in 1902 to three-tenths of 1 per cent in 1907. For reasons elsewhere explained, comparison of the statistics of the two years gives no conclusions of scientific value. The figures are given only to show the less importance of such companies in 1907, and to permit more accurate comparisons of the statistics for railways operating throughout the year.

Condensed income account of companies, classified according to kind of system and character of service.—It is impracticable for the census to make all possible classifications that the statistical purpose of comparability might suggest; but as between surface railways on the one hand and elevated and subway railways on the other hand, the operating conditions are so different as to give unusual value and importance to a separate analysis of their statistics. The same may be said of the classification in which 50 selected interurban lines and 100 selected small urban roads are set off from all other railways. Both these groupings are made in the condensed income account shown in Table 102. It was not believed, however, that comparison of the statistics for 1907 with those for 1902 would have sufficient value to justify the difficult retabulation of the reports for 1902.

TABLE 102.—CONDENSED INCOME ACCOUNT OF OPERATING COMPANIES, CLASSIFIED ACCORDING TO KIND OF SYSTEM AND CHARACTER OF SERVICE: 1907.

ACCOUNT.	Total, all companies.	CLASSIFICATION GROUP.				
		Kind of system.		Character of service.		
		Electric elevated and subway railways.[1]	Electric surface railways.[2]	Selected interurban lines.	Selected small urban roads.	All other railways.
Number of companies	[3] 939	6	933	50	100	789
Gross income	$420,744,254	$34,257,979	$395,486,275	$30,131,545	$1,411,338	$398,201,371
Operating earnings	418,187,858	33,874,054	384,313,804	29,155,121	1,407,010	387,625,718
Operating expenses	251,309,252	15,129,025	236,180,227	16,900,292	1,135,442	233,273,518
Net earnings from operation	166,878,606	18,745,029	148,133,577	12,254,829	271,577	154,352,200
Miscellaneous income	11,556,396	383,925	11,172,471	976,424	4,319	10,575,653
Gross income, less operating expenses	178,435,002	19,128,954	159,306,048	13,231,253	275,896	164,927,853
Deductions from income, total	138,094,716	13,459,216	124,635,500	10,767,359	350,092	126,977,265
Taxes	19,755,602	1,986,249	17,769,353	992,177	47,686	18,715,739
Interest	63,740,744	3,700,602	60,040,142	6,590,999	300,988	56,848,757
On funded debt	53,766,525	3,425,422	50,341,103	6,127,024	253,378	47,386,123
On other debt	9,974,219	275,180	9,699,039	463,975	47,610	9,462,634
Rent of leased lines and terminals	48,022,596	5,966,120	42,056,476	3,054,413	.....	44,968,183
Miscellaneous deductions	6,575,774	1,806,245	4,769,529	129,770	1,418	6,444,586
Net income	40,340,286	5,669,738	34,670,548	2,463,894	[4] 74,196	37,950,588
Dividends	26,454,732	4,008,880	22,445,852	1,256,992	31,403	25,166,337
Surplus	13,885,554	1,660,858	12,224,696	1,206,902	[5] 105,599	12,784,251

[1] Exclusive of the mixed elevated, subway, and surface systems in Boston, Mass., and Philadelphia, Pa.

[2] Includes the statistics for the few railways not operated by electricity.

[3] Exclusive of 6 companies which failed to furnish this information.

[4] Deficit.

[5] Total deficit.

The electric elevated and subway companies and the selected small urban roads are operated almost exclusively in cities. The selected interurban roads, as has been explained, are roads whose operators report the greater part of their trackage as rural, and whose business is chiefly interurban. The other two groups—and they include the very great majority of all companies—do not represent conditions exclusively urban, interurban, or rural. The totals given in this table should be considered in connection with the distribution of the gross income shown in Table 103.

TABLE 103.—*Per cent distribution, by accounts, of gross income of operating companies, classified according to kind of system and character of service: 1907.*

ACCOUNT.	PER CENT OF GROSS INCOME.					
	Total, all companies.	Classification group.				
		Kind of system.		Character of service.		
		Electric elevated and subway railways.	Electric surface railways.	Selected interurban lines.	Selected small urban roads.	All other railways.
Gross income	100.0	100.0	100.0	100.0	100.0	100.0
Operating expenses	58.5	44.2	59.7	50.1	80.5	58.6
Deductions from income, total	32.1	39.3	31.5	35.7	24.8	31.9
Taxes	4.6	5.8	4.5	3.3	3.4	4.7
Interest	14.8	10.8	15.2	21.9	21.3	14.3
On funded debt	12.5	10.0	12.7	20.3	18.0	11.9
On other debt	2.3	0.8	2.5	1.5	3.4	2.4
Rent of leased lines and terminals	11.2	17.4	10.6	10.1	.....	11.3
Miscellaneous deductions	1.5	5.3	1.2	0.4	0.1	1.0
Dividends	6.2	11.7	5.7	4.2	2.2	6.3
Surplus	3.2	4.8	3.1	4.0	7.5	3.2

[1] Deficit (see Table 102).

The small group of electric elevated and subway railways shows a low per cent ratio of operating expenses to gross income (44.2), and a relatively high per cent ratio for deduction from income (39.3); while, as representing the other extreme, the group of small urban roads shows a high ratio for operating expenses (80.5) and a low one for deductions from income (24.8).

The subway rentals paid the cities of New York and Boston are included in the item of "Miscellaneous deductions," and constitute a considerable proportion of the amounts reported for this item for both groups under the classification by "Kind of system," and for "All other railways" under the classification by "Character of service." The Boston Elevated Railway, operating the Boston Subway, is included, as has been stated, in the group of "Electric surface railways." From one point of view, the percentages to be credited to rent of leased lines and terminals are larger than the table indicates, since in many aspects subway rentals are akin to rentals of leased lines.

The small per cent ratio of interest on funded debt to gross income shown for the elevated and subway roads (10) is more than offset by the rentals, which formed a much larger proportion of the gross income than is shown for the other groups. This group also shows the largest percentage paid in dividends and the largest proportion set aside as surplus.

In very many respects the selected interurban and the small urban roads represent the two extremes of service conditions. The equipment, methods of operation, length of ride, etc., are radically different for the two groups, and these differences are reflected in the percentages given in Table 103.

TABLE 104.—CONDENSED INCOME ACCOUNT OF OPERATING COMPANIES,

	STATE OR TERRITORY.	Census.	Number of companies.	Operating earnings.	OPERATING EXPENSES. Amount.	OPERATING EXPENSES. Per cent ratio of operating earnings.
1	United States	1907	[1] 939	$418,187,858	$251,309,252	60.1
2		1902	[2] 799	247,553,999	142,312,597	57.5
3	North Atlantic division	1907	365	193,826,057	116,309,563	60.0
4		1902	356	131,034,080	76,504,080	58.4
5	Maine	1907	17	2,259,649	1,480,544	65.5
6		1902	19	1,542,508	1,127,660	73.1
7	New Hampshire	1907	16	1,088,957	895,862	82.3
8		1902	7	604,131	478,849	79.3
9	Vermont	1907	10	441,389	313,845	71.1
10		1902	9	249,228	201,179	80.7
11	Massachusetts	1907	62	30,925,503	21,179,642	68.5
12		1902	74	23,617,570	16,403,667	69.5
13	Rhode Island	1907	5	4,432,999	2,744,166	61.9
14		1902	7	2,964,260	1,892,477	63.8
15	Connecticut	1907	8	7,271,569	4,857,763	66.8
16		1902	21	4,284,089	2,773,608	64.7
17	New York	1907	101	89,856,329	50,928,855	56.7
18		1902	96	59,315,606	33,677,724	56.8
19	New Jersey	1907	24	12,895,532	7,905,138	61.3
20		1902	25	8,137,477	4,324,112	53.1
21	Pennsylvania	1907	122	44,654,130	26,003,748	58.2
22		1902	98	30,319,211	15,624,813	51.5
23	South Atlantic division	1907	100	28,531,988	16,280,864	57.1
24		1902	75	14,989,177	8,186,047	54.6
25	Delaware	1907	4	756,108	516,253	68.3
26		1902	3	500,412	360,590	72.1
27	Maryland and District of Columbia	1907	19	11,617,214	5,943,863	51.2
28		1902	18	7,893,313	3,870,538	40.0
29	Virginia	1907	22	5,152,173	3,261,570	63.3
30		1902	16	1,553,478	1,009,356	65.0
31	West Virginia	1907	15	2,562,800	1,540,305	60.1
32		1902	8	1,102,171	652,862	59.2
33	North Carolina	1907	11	1,186,409	743,357	62.7
34		1902	7	437,259	322,344	73.7
35	South Carolina	1907	7	1,273,617	762,853	59.9
36		1902	7	597,577	398,662	66.7
37	Georgia	1907	12	4,616,337	2,555,713	55.4
38		1902	10	2,375,224	1,232,320	51.9
39	Florida	1907	10	1,367,210	956,860	70.0
40		1902	6	520,743	339,375	64.1
41	North Central division	1907	293	132,783,152	78,374,932	59.0
42		1902	235	73,285,248	41,271,462	56.3
43	Ohio	1907	73	30,392,675	18,479,609	60.8
44		1902	62	16,587,693	9,132,480	55.1
45	Indiana	1907	33	11,224,545	6,308,152	56.2
46		1902	26	3,813,076	2,219,791	58.2
47	Illinois	1907	70	40,448,084	25,597,996	63.3
48		1902	48	24,104,965	14,103,211	58.4
49	Michigan	1907	24	10,948,588	6,549,919	59.8
50		1902	24	6,494,691	3,655,328	56.3
51	Wisconsin	1907	20	6,135,064	3,235,068	52.7
52		1902	17	3,902,059	1,995,024	51.1
53	Minnesota	1907	5	7,048,370	3,524,346	50.0
54		1902	5	3,727,648	1,719,687	46.1
55	Iowa	1907	24	4,295,930	2,826,959	65.8
56		1902	22	2,384,421	1,460,993	61.3
57	Missouri	1907	14	18,000,248	9,680,226	53.8
58		1902	16	10,691,220	6,071,971	56.8
59	North and South Dakota [4]	1907	5	112,079	72,412	64.6
60	Nebraska	1907	8	2,737,756	1,325,038	48.4
61		1902	4	1,148,994	655,729	57.1
62	Kansas	1907	17	1,439,813	775,207	53.8
63		1902	11	370,481	257,248	69.4

[1] Exclusive of 6 companies which failed to furnish this information.
[2] Exclusive of 18 companies which failed to furnish this information.

BY STATES AND GEOGRAPHIC DIVISIONS: 1907 AND 1902.

Net earnings from operation.	Miscellaneous income.	Gross income, less operating expenses.	Deductions from income (taxes and fixed charges).	Net income of companies reporting net income.	Deficit of companies reporting deficit.	Net income for state.	Dividends.	Surplus.	
$166,878,606	$11,556,396	$178,435,002	$138,094,716	$51,201,981	$16,861,695	$40,340,286	$26,454,732	$13,885,554	1
105,241,402	2,950,628	108,192,030	77,595,058	34,362,684	3,755,707	30,596,977	15,882,110	14,714,867	2
77,516,494	3,400,886	80,917,380	71,907,673	15,340,854	6,331,147	9,009,707	9,473,396	[3] 463,689	3
54,529,991	1,760,716	56,290,707	43,101,611	15,164,496	1,975,400	13,189,096	6,819,837	6,369,259	4
779,105	33,548	812,653	469,277	351,964	8,588	343,376	186,694	156,682	5
414,848	29,054	443,902	337,050	148,961	42,109	106,852	67,829	39,023	6
193,095	3,225	196,320	112,510	111,407	27,597	83,810	74,170	9,640	7
125,282	.....	125,282	83,786	45,225	3,729	41,496	8,250	33,246	8
127,544	12,863	140,407	117,601	38,323	15,517	22,806	18,000	4,806	9
48,049	.....	48,049	45,089	20,704	17,744	2,960	8,750	[4] 5,790	10
9,745,861	148,459	9,894,320	7,061,339	2,947,539	114,558	2,832,981	2,421,056	411,925	11
7,213,903	15,840	7,229,743	5,108,619	2,301,508	180,384	2,121,124	1,910,060	211,064	12
1,688,833	26,038	1,714,871	1,538,793	196,472	20,394	176,078	.....	176,078	13
1,071,783	.....	1,071,783	351,767	912,477	192,461	720,016	760,000	[3] 39,984	14
2,413,806	107,427	2,521,233	2,154,647	366,586	.....	366,586	57,656	308,930	15
1,510,481	71,686	1,582,167	1,128,319	461,604	7,756	453,848	231,062	222,786	16
38,927,474	1,829,344	40,756,818	35,354,087	9,450,024	4,047,293	5,402,731	5,565,664	[3] 162,933	17
25,637,882	1,566,174	27,204,056	19,552,955	8,391,716	740,615	7,651,101	3,133,655	4,517,446	18
4,990,394	187,126	5,177,520	5,755,396	167,201	745,077	[3] 577,876	172,928	[3] 750,804	19
3,813,365	39,446	3,852,811	3,625,740	385,232	158,161	227,071	78,420	148,651	20
18,650,382	1,052,856	19,703,238	19,344,023	1,711,338	1,352,123	359,215	977,228	[3] 618,013	21
14,694,398	38,516	14,732,914	12,868,286	2,497,069	632,441	1,864,628	621,811	1,242,817	22
12,251,124	1,072,998	13,324,122	7,998,784	5,547,479	222,141	5,325,338	2,139,337	3,186,001	23
6,803,130	175,058	6,978,188	5,260,379	1,950,265	232,456	1,717,809	746,945	970,864	24
239,915	2,015	241,930	203,623	56,541	18,234	38,307	52,000	[3] 13,693	25
139,822	147	139,969	77,439	79,591	17,061	62,530	9,331	53,199	26
5,673,351	515,379	6,188,730	3,708,300	2,549,328	68,898	2,480,430	1,150,000	1,330,430	27
4,022,775	.....	4,022,775	3,237,193	923,835	138,253	785,582	606,827	178,755	28
1,890,603	249,242	2,139,845	1,287,931	909,308	57,394	851,914	68,750	783,164	29
544,122	113,544	657,666	547,730	151,899	41,963	109,936	33,395	76,541	30
1,022,405	25,925	1,048,330	743,200	333,896	28,766	305,130	26,400	278,730	31
449,309	.....	449,309	265,842	183,467	.....	183,467	22,000	161,467	32
443,112	109,008	552,120	353,806	210,889	12,575	198,314	.....	198,314	33
114,915	5,208	120,123	98,993	47,071	25,941	21,130	.....	21,130	34
510,764	62,840	573,604	390,713	182,891	.....	182,891	.....	182,891	35
198,915	56,159	255,074	203,196	60,318	8,440	51,878	720	51,158	36
2,060,624	104,258	2,164,882	1,124,989	1,045,033	5,140	1,039,893	643,787	396,106	37
1,142,904	.....	1,142,904	755,207	387,697	.....	387,697	33,952	353,745	38
410,350	4,331	414,681	186,222	259,593	31,134	228,459	198,400	30,059	39
190,368	.....	190,368	74,779	116,387	798	115,589	40,720	74,869	40
54,408,220	2,500,419	56,908,639	39,803,747	19,356,926	2,252,034	17,104,892	9,548,424	7,556,468	41
32,013,786	987,642	33,001,428	22,968,954	11,457,709	1,425,235	10,032,474	6,438,042	3,594,432	42
11,913,066	882,226	12,795,292	9,215,583	4,115,561	535,852	3,579,709	2,315,688	1,264,021	43
7,455,213	12,158	7,467,371	4,137,866	3,467,102	137,597	3,329,505	1,644,598	1,684,907	44
4,916,393	272,223	5,188,616	4,477,535	888,457	177,376	711,081	148,498	562,583	45
1,593,285	.....	1,593,285	1,201,297	438,115	46,127	391,988	33,974	358,014	46
14,850,088	503,568	15,353,656	10,668,510	6,024,972	1,339,826	4,685,146	2,337,129	2,348,017	47
10,061,754	864,292	10,926,046	8,453,191	3,196,378	723,523	2,472,855	2,310,710	162,145	48
4,398,669	83,386	4,482,055	2,867,083	1,753,866	138,894	1,614,972	687,530	927,442	49
2,839,363	26,482	2,865,845	1,788,797	1,145,719	68,671	1,077,048	612,000	465,048	50
2,899,966	527,753	3,427,749	2,180,929	1,292,027	45,207	1,246,820	1,068,187	178,633	51
1,907,035	21,825	1,928,860	1,081,160	847,700	.....	847,700	300,563	547,137	52
3,524,024	8,138	3,532,162	2,128,156	1,404,006	.....	1,404,006	1,215,000	189,006	53
2,007,961	.....	2,007,961	1,027,121	980,840	.....	980,840	870,400	110,440	54
1,468,971	95,210	1,564,181	894,434	676,017	7,170	669,747	218,900	450,847	55
923,428	19,413	942,841	429,373	529,085	15,617	513,468	117,660	395,808	56
8,320,022	82,484	8,402,506	6,150,063	2,257,403	4,960	2,252,443	1,019,000	1,233,443	57
4,619,249	43,472	4,662,721	4,035,401	459,982	432,662	27,320	313,337	[3] 286,017	58
39,667	50	39,717	19,993	19,872	148	19,724	.....	19,724	59
1,412,718	6,348	1,419,066	895,573	526,094	2,601	523,493	458,032	65,461	60
493,265	.....	493,265	150,297	343,949	981	342,968	230,800	112,168	61
664,606	39,033	703,639	305,888	397,751	.....	397,751	80,460	317,291	62
113,233	.....	113,233	64,451	48,839	57	48,782	4,000	44,782	63

[3] Deficit.

[4] No company reported in 1902 for North Dakota, and the 1 company in South Dakota in 1902 failed to furnish this information.

TABLE 104.—CONDENSED INCOME ACCOUNT OF OPERATING COMPANIES,

	STATE OR TERRITORY.	Census.	Number of companies.	Operating earnings.	OPERATING EXPENSES.	
					Amount.	Per cent ratio of operating earnings.
64	South Central division	1907	90	$24,548,631	$14,887,271	60.6
65		1902	66	11,385,391	6,678,876	58.7
66	Kentucky	1907	13	4,776,098	2,825,497	59.2
67		1902	12	2,932,901	1,560,270	53.2
68	Tennessee	1907	9	4,443,891	2,434,252	54.8
69		1902	8	1,896,835	1,079,237	57.8
70	Alabama	1907	10	3,365,979	2,276,100	67.6
71		1902	9	1,497,351	878,291	58.7
72	Mississippi	1907	8	817,769	534,542	65.4
73		1902	5	258,654	192,056	74.3
74	Louisiana	1907	11	4,508,104	2,682,481	59.5
75		1902	8	2,910,244	1,758,989	60.4
76	Arkansas	1907	8	1,215,954	683,262	56.2
77		1902	7	371,560	216,433	58.2
78	Oklahoma[2]	1907	8	564,196	357,917	63.4
79	Texas	1907	23	4,856,640	3,093,220	63.7
80		1902	17	1,547,846	993,600	64.2
81	Western division	1907	91	38,498,030	25,456,622	66.1
82		1902	67	16,800,103	9,672,123	57.4
83	Montana	1907	5	760,201	551,933	72.6
84		1902	5	492,023	365,073	74.2
85	Colorado	1907	11	4,130,962	2,099,421	50.8
86		1902	7	2,227,286	1,300,606	58.4
87	Washington	1907	14	7,898,743	5,140,501	65.1
88		1902	8	2,542,906	1,576,018	62.0
89	Oregon	1907	8	2,731,674	1,638,271	60.0
90		1902	6	1,042,895	653,912	62.7
91	California	1907	41	20,691,713	14,578,367	70.5
92		1902	35	9,967,288	5,402,245	54.2
93	All other Western states and territories[3]	1907	12	2,284,737	1,448,129	63.4
94		1902	6	587,705	374,269	63.7
95	Hawaii and Porto Rico[4]	1907	4	745,338	418,432	56.1
96		1902	5	515,913	330,350	64.0

[1] Deficit.
[2] No company reported in 1902.

BY STATES AND GEOGRAPHIC DIVISIONS: 1907 AND 1902—Continued.

Net earnings from operation.	Miscellaneous income.	Gross income, less operating expenses.	Deductions from income (taxes and fixed charges).	Net income of companies reporting net income.	Deficit of companies reporting deficit.	Net income for state.	Dividends.	Surplus.	
$9,661,360	$1,804,383	$11,465,743	$6,959,418	$4,755,976	$249,651	$4,506,325	$2,686,578	$1,819,747	64
4,706,515	899	4,707,414	2,754,169	2,009,053	55,808	1,953,245	836,798	1,116,447	65
1,950,601	15,835	1,966,436	1,109,233	878,050	20,847	857,203	625,938	231,265	66
1,372,631	899	1,373,530	777,433	602,551	6,454	596,097	371,000	225,097	67
2,009,639	37,100	2,046,739	1,418,575	629,045	881	628,164	284,676	343,488	68
787,598	.....	787,598	595,356	222,214	29,972	192,242	.....	192,242	69
1,089,879	101,497	1,191,376	988,048	332,752	129,424	203,328	250,868	[1]47,540	70
619,060	.....	619,060	384,702	244,243	9,945	234,298	81,000	153,298	71
283,227	88,520	371,747	247,833	157,574	33,660	123,914	.....	123,914	72
66,598	.....	66,598	38,684	28,764	850	27,914	.....	27,914	73
1,825,623	1,486,871	3,312,494	1,890,680	1,426,252	4,438	1,421,814	994,698	427,116	74
1,151,255	.....	1,151,255	690,380	463,313	2,438	460,875	362,198	98,677	75
532,692	59,442	592,134	263,537	338,411	9,814	328,597	105,228	223,369	76
155,127	.....	155,127	68,071	87,633	577	87,056	.....	87,056	77
206,279	13,761	220,040	109,230	111,653	843	110,810	150,000	[1]39,190	78
1,763,420	1,357	1,764,777	932,282	882,239	49,744	832,495	275,170	557,325	79
554,246	.....	554,246	199,483	360,335	5,572	354,763	22,600	332,163	80
13,041,408	2,777,710	15,819,118	11,425,094	6,200,746	1,806,722	4,394,024	2,600,997	1,787,027	81
7,187,980	20,313	7,214,293	3,509,940	3,771,161	66,808	3,704,353	1,040,488	2,663,865	82
208,268	142,420	350,688	120,851	233,863	4,026	229,837	35,530	194,307	83
126,950	.....	126,950	74,633	66,196	13,879	52,317	.....	52,317	84
2,031,541	352,292	2,383,833	1,273,024	1,136,866	26,057	1,110,809	307,124	803,685	85
926,680	480	927,160	536,005	432,428	41,273	391,155	180,000	211,155	86
2,758,242	503,817	3,262,059	1,788,314	1,503,976	30,231	1,473,745	556,543	917,202	87
966,888	.....	966,888	463,101	504,784	997	503,787	150,028	353,759	88
1,093,403	896,316	1,989,719	992,748	1,002,846	5,875	996,971	535,000	461,971	89
388,983	.....	388,983	146,519	243,721	1,257	242,464	54,048	188,416	90
6,113,346	854,084	6,967,430	6,732,705	1,965,455	1,730,730	234,725	1,172,800	[1]938,075	91
4,565,043	550	4,565,593	2,112,959	2,461,414	8,780	2,452,634	653,412	1,799,222	92
836,608	28,781	865,389	517,452	357,740	9,803	347,937	.....	347,937	93
213,436	25,283	238,719	176,723	62,618	622	61,996	3,000	58,996	94
326,906	8,421	335,327	184,302	151,025	.....	151,025	45,000	106,025	95
185,563	.....	185,563	100,015	99,943	20,395	79,548	19,500	60,048	96

[1] Includes states and territories as follows: 1907—Arizona, 4; Idaho, 2; Nevada, 1; New Mexico, 2; Utah, 3. 1902—Arizona, 1; Idaho, 1; New Mexico, 1; Utah, 3.
[1] Includes companies as follows: 1907—Hawaii, 1; Porto Rico, 3. 1902—Hawaii, 3; Porto Rico, 2.

TABLE 105.—INCOME ACCOUNT OF NONOPERATING

	STATE.	Census.	Number of companies.	INCOME. Total.	Rentals from operating companies.	Miscellaneous.
1	United States	1907	291	$47,913,249	$47,500,933	$412,316
2		1902	[1] 158	20,138,899	20,116,884	22,015
3	Connecticut	1907	3	1,087,858	1,010,367	77,491
4		1902	4	113,546	113,546	.....
5	Delaware [2]	1907	3	43,200	43,200	.....
6	Illinois	1907	10	2,628,488	2,628,488	.....
7		1902	8	3,758,762	3,758,762	.....
8	Indiana [2]	1907	10	1,945,781	1,945,781	.....
9	Massachusetts	1907	19	2,128,500	2,119,919	8,581
10		1902	18	1,986,774	1,986,774	.....
11	New Jersey	1907	17	2,166,850	2,166,765	85
12		1902	4	1,586,217	1,586,217	.....
13	New York	1907	46	18,882,040	18,870,857	11,183
14		1902	23	5,703,608	5,697,399	6,209
15	Ohio	1907	17	3,178,599	3,178,599	.....
16		1902	4	1,059,814	1,059,814	.....
17	Pennsylvania	1907	140	13,937,422	13,631,311	306,111
18		1902	86	9,608,918	9,593,112	15,806
19	Rhode Island [2]	1907	3	1,054,080	1,054,080	.....
20	West Virginia [2]	1907	3	10,321	4,795	5,526
21	All other states [4]	1907	14	850,110	846,771	3,339
22		1902	11	2,321,260	2,321,260	.....

[1] Exclusive of 12 companies which failed to furnish this information.
[2] Deficit.
[3] No lessor companies reported in 1902.

TABLE 106.—CONDENSED INCOME ACCOUNT OF OPERATING

	STATE.	Census.	NUMBER OF COMPANIES. Total.	Operating.	Lessor.	Operating earnings.	Operating expenses.	Net earnings from operation.	Miscellaneous income.
1	United States	1907	[1] 1,230	[1] 939	291	$418,187,858	$251,309,252	$166,878,606	$11,968,712
2		1902	[2] 957	[3] 799	[4] 158	247,553,999	142,312,597	105,241,402	2,972,643
3	Total for states having operating and lessor companies	1907	[1] 971	[1] 680	291	332,350,677	202,432,908	129,917,769	8,782,441
4		1902	[5] 641	[6] 483	[4] 158	186,300,383	107,331,024	79,059,359	2,703,133
5	Connecticut	1907	11	8	3	7,271,569	4,857,763	2,413,806	184,918
6		1902	25	21	4	4,284,089	2,773,608	1,510,481	71,686
7	Delaware [7]	1907	7	4	3	756,168	516,253	239,915	2,015
8	Illinois	1907	86	70	16	40,448,084	25,597,996	14,850,088	503,568
9		1902	56	48	8	24,164,965	14,103,211	10,061,754	864,292
10	Indiana [7]	1907	43	33	10	11,224,545	6,308,152	4,916,393	272,223
11	Massachusetts	1907	81	62	19	30,925,503	21,179,642	9,745,861	157,040
12		1902	92	74	18	23,617,570	16,403,667	7,213,903	15,840
13	New Jersey	1907	41	24	17	12,895,532	7,905,138	4,990,394	187,211
14		1902	29	25	4	8,137,477	4,324,112	3,813,365	39,446
15	New York	1907	147	101	46	89,856,329	50,928,855	38,927,474	1,840,527
16		1902	119	96	23	59,315,606	33,677,724	25,637,882	1,572,388
17	Ohio	1907	90	73	17	30,392,675	18,479,609	11,913,066	882,226
18		1902	66	62	4	16,587,693	9,132,480	7,455,213	12,158
19	Pennsylvania	1907	262	122	140	44,654,130	26,003,748	18,650,382	1,358,967
20		1902	184	98	86	30,319,211	15,624,813	14,694,398	54,322
21	Rhode Island [7]	1907	8	5	3	4,432,999	2,744,166	1,688,833	26,038
22	West Virginia [7]	1907	18	15	3	2,562,800	1,540,395	1,022,405	31,451
23	All other states [9]	1907	177	163	14	56,930,343	36,371,191	20,559,152	3,336,257
24		1902	70	59	11	19,963,772	11,291,409	8,672,363	73,006

[1] Exclusive of 6 companies which failed to furnish this information.
[2] Exclusive of 30 companies which failed to furnish this information.
[3] Exclusive of 18 companies which failed to furnish this information.
[4] Exclusive of 12 companies which failed to furnish this information.
[5] Exclusive of 20 companies which failed to furnish this information.
[6] Exclusive of 8 companies which failed to furnish this information.

LESSOR COMPANIES, BY STATES: 1907 AND 1902.

EXPENDITURES.											
Aggregate.	Taxes.	Interest.			Miscellaneous (maintenance of organization, etc.).	Net income of companies reporting net income.	Deficit of companies reporting deficit.	Net income for state.	Dividends.	Surplus.	
		Total.	On funded debt.	On floating debt and real-estate mortgages.							
$19,465,984 8,779,294	$926,459 287,436	$18,030,522 8,376,559	$17,702,263 8,355,677	$328,259 20,882	$509,003 115,299	$28,452,477 17,359,837	$5,212 232	$28,447,265 17,359,605	$28,030,542 17,157,061	$416,723 202,544	1 2
686,514 77,363	100 18,052	612,927 43,704	612,927 36,500	 7,204	73,487 15,607	401,344 36,183	....	401,344 36,183	355,570 44,000	45,774 [2]7,817	3 4
23,000	3,000	20,000	20,000	.....	.....	20,200	.....	20,200	20,200	.....	5
2,082,798 1,323,507	22,504	1,887,758 1,323,507	1,649,797 1,323,507	237,961	172,536	545,690 2,435,255	....	545,690 2,435,255	533,500 2,435,255	12,190	6 7
1,382,797	4,997	1,374,870	1,374,870	.....	3,260	562,984	.....	562,984	558,560	4,424	8
738,271 705,967	1,096 845	741,811 695,678	738,254 682,427	3,557 13,251	15,364 9,444	1,370,229 1,280,989	 182	1,370,229 1,280,807	1,368,633 1,272,395	1,596 8,412	9 10
1,374,619 1,165,747	7,630	1,364,360 1,160,560	1,364,360 1,160,560	....	2,620 5,187	792,231 420,470	....	792,231 420,470	780,970 369,220	11,261 51,250	11 12
7,206,509 1,937,801	8,073	7,101,331 1,908,060	7,084,345 1,908,060	16,986	97,165 29,741	11,676,796 3,765,807	1,325	11,675,471 3,765,807	11,689,769 3,747,209	[2]14,298 18,598	13 14
1,340,120 55,425	....	1,317,587 55,425	1,317,587 55,425	....	22,533	1,838,479 1,004,389	....	1,838,479 1,004,389	1,838,479 988,956	 15,433	15 16
3,098,671 1,821,203	878,438 208,404	2,709,769 1,497,969	2,641,844 1,497,542	67,925 427	110,464 54,830	10,239,133 7,787,765	382 50	10,238,751 7,787,715	9,914,220 7,529,069	324,531 258,646	17 18
203,780	.....	203,780	203,780	.....	.....	850,300	.....	850,300	850,000	300	19
4,210	509	416	416	.....	3,285	6,111	.....	6,111	.....	6,111	20
704,635 1,692,281	442 135	695,013 1,691,656	694,083 1,691,656	1,830	8,280 490	148,980 628,979	3,505	145,475 628,979	120,641 770,957	24,834 [2]141,978	21 22

[1] Includes states as follows: 1907—California, 1; Iowa, 2; Louisiana, 1; Maryland, 2; Nebraska, 2; New Hampshire, 2; North Carolina, 1; Utah, 1; Virginia, 1; Washington, 1. 1902—Colorado, 1; Maine, 1; Maryland, 2; Missouri, 1; New Hampshire, 6.

AND LESSOR COMPANIES COMBINED, BY STATES: 1907 AND 1902.

Rentals from operating companies.	Gross income, less operating expenses.	DEDUCTIONS FROM INCOME (TAXES AND FIXED CHARGES).							Net income.	Dividends.	Surplus.	
		Aggregate.	Taxes.	Interest.			Rent of leased lines and terminals.	Miscellaneous deductions.				
				Total.	On funded debt.	On floating debt and real-estate mortgages.						
$47,500,933 26,116,884	$226,348,251 134,330,929	$157,560,700 86,367,456	$20,682,061 13,366,335	$81,771,266 46,462,470	$71,468,788 43,578,961	$10,302,478 2,883,509	$48,022,596 25,518,225	$7,084,777 1,020,426	$68,787,551 47,963,473	$54,485,274 33,039,171	$14,302,277 14,924,302	1 2
47,500,933 26,116,884	186,201,143 107,879,376	133,001,619 71,802,227	16,462,535 10,831,370	63,387,517 34,828,503	54,921,139 32,442,978	8,466,378 2,385,525	48,007,850 25,493,441	5,143,717 648,913	53,199,524 36,077,149	45,653,682 27,660,793	7,545,842 8,416,356	3 4
1,010,367 113,546	3,609,091 1,695,713	2,841,161 1,205,682	359,612 261,445	822,535 801,284	737,305 768,608	85,230 32,676	831,650 108,046	827,364 34,907	767,930 490,031	413,226 275,062	354,704 214,969	5 6
43,200	285,130	226,623	18,333	163,255	67,000	96,255	43,200	1,835	58,507	72,200	[3]13,693	7
2,628,488 3,758,762	17,982,144 14,684,808	12,751,308 9,776,698	2,040,693 1,488,359	7,795,393 4,361,337	7,084,031 4,110,070	711,362 251,267	2,048,012 3,875,007	267,210 51,995	5,230,836 4,908,110	2,870,629 4,745,965	2,360,207 162,145	8 9
1,945,781	7,134,397	5,860,332	503,940	3,258,142	3,151,628	106,514	1,966,943	131,307	1,274,065	707,058	567,007	10
2,119,919 1,086,774	12,022,820 9,216,517	7,819,610 5,814,586	1,912,666 1,610,341	3,352,738 2,219,926	2,646,831 1,753,669	705,907 466,257	2,145,639 1,967,540	408,627 16,779	4,203,210 3,401,931	3,789,689 3,182,455	413,521 219,476	11 12
2,166,765 1,586,217	7,344,370 5,439,028	7,130,015 4,791,487	635,140 431,912	4,205,064 2,733,071	3,965,219 2,636,943	239,845 97,028	2,272,148 1,586,217	17,603 39,387	214,355 647,541	953,898 447,640	[3]739,543 199,901	13 14
18,870,857 5,697,599	59,638,858 32,907,664	42,560,656 21,490,756	4,305,798 3,428,461	16,832,136 12,241,187	14,231,277 11,436,803	2,600,859 804,384	19,279,392 5,719,589	2,143,330 101,519	17,078,202 11,416,908	17,255,433 6,880,864	[3]177,231 4,536,044	15 16
3,178,599 1,059,814	15,973,891 8,527,185	10,555,703 4,193,291	1,387,052 601,142	5,930,019 2,513,009	5,204,963 2,350,693	725,056 162,316	3,155,380 1,066,636	83,252 12,504	5,418,188 4,333,894	4,154,167 2,633,554	1,264,021 1,700,340	17 18
13,631,311 9,503,112	33,640,660 24,341,832	23,042,694 14,689,489	2,102,832 1,844,880	7,029,518 3,554,135	5,704,603 3,368,082	1,324,915 186,053	13,554,786 8,902,431	355,558 388,043	10,597,966 9,652,343	10,891,448 8,150,880	[3]293,482 1,501,463	19 20
1,054,080	2,768,951	1,742,573	292,145	388,786	287,005	101,781	1,054,080	7,562	1,026,378	850,000	176,378	21
4,795	1,058,651	747,410	94,002	640,172	509,143	131,029	4,795	8,441	311,241	26,400	284,841	22
846,771 2,321,200	24,742,180 11,066,629	17,723,534 9,840,238	2,810,382 1,164,830	12,969,759 6,403,654	11,332,134 6,018,110	1,637,625 385,544	1,051,825 2,267,975	891,568 3,779	7,018,646 1,226,391	3,669,534 1,344,373	3,349,112 [3]117,982	23 24

[1] No lessor companies reported in 1902.
[3] Deficit.
[4] Includes states as follows: 1907—California, 42; Iowa, 26; Louisiana, 12; Maryland, 15; Nebraska, 10; New Hampshire, 18; North Carolina, 12; Utah, 4; Virginia, 23; Washington, 15. 1902—Colorado, 8; Maine, 20; Maryland, 12; Missouri, 17; New Hampshire, 13.

II.

OPERATING EARNINGS AND MISCELLANEOUS INCOME.

Operating earnings.[1]—The gross income shown in Tables 87 and 88 includes amounts derived from sources other than the operation of railway properties. Deducting these amounts, there remains as the earnings from operating $247,553,999 in 1902 and $418,-187,858 in 1907, an increase of $170,633,859, or 68.9 per cent.

Operating earnings include all income from any of the following sources: From passenger traffic; from chartered cars and freight, mail, and express business; from the sale of current; and from certain miscellaneous sources. Of these earnings, the income from passenger service, which includes, in addition to cash fares, money received from the sale of tickets and commutation books, and all other income derived directly from passenger traffic, constitutes the most important item. The income from chartered cars is obtained from the hire of special-purpose cars, such as observation, theater, or funeral cars. These two items and the amounts derived from the freight, mail, and express business[2] represent practically all the income obtained directly from the operations of the road or from the car service, amounting in 1907 to $390,276,347 and in 1902 to $235,997,005, an increase of $154,279,342, or 65.4 per cent.

The income from the sale of current, either to other public-service corporations or to the general public, is the second largest item of operating earnings, and increased by $12,389,728, or 160.8 per cent, during the census interval. This marked increase reflects the growth of the practice of operating light and power stations in connection with railways.

The miscellaneous earnings increased from $3,853,420 in 1902 to $7,818,209 in 1907, an absolute increase of $3,964,789, or 102.9 per cent. These earnings are composed principally of income from advertising; rent of land and buildings, used mainly for the operation of the railway property; rent of tracks, the use of which had not been abandoned by the lessor; rent of equipment; and receipts from parks and pleasure resorts. The standard form of accounting provides that only the net income or net expense of parks, park resorts, or similar property shall be carried in the railway accounts, and that such income shall be treated as "Miscellaneous income" rather than "Miscellaneous earnings." But this practice was not followed by all the companies in their returns, some of them reporting instead the total expenses and the gross income of such property. While the latter method of accounting tends to inflate both the income and the expenses reported, the net income in both cases is the same.

The following statement illustrates the differences in the relative importance of the different sources of revenue for the street and electric railways and the steam railroads of the country:

Per cent distribution, by source, of operating earnings of street and electric railways and steam railroads: 1907.

SOURCE.	Street and electric railways.	Steam railroads.
Operating earnings	100.0	100.0
Passenger service	91.4	21.8
Freight service	1.3	70.4
Mail service	0.2	1.9
Express service	0.4	2.2
All other	6.8	3.6

The income from passenger service represents about nine-tenths of the operating income of the electric railways and only about two-tenths of that of the steam roads. Freight business, which is just beginning to be of importance on the electric railways, furnishes slightly more than seven-tenths of the revenue of steam roads.

Operating earnings of companies, classified according to income from railway operations.—As already noted, the classification of railways according to size is based upon their income from railway operations. Thus any income from the sale of current—which is treated as operating earnings in the census statistics—and all items of income that make up the total of "Miscellaneous income," not from operation, have no effect in determining the class of any railway, however greatly they may swell its gross income.

Necessarily when street railways were confined to cities by the fact that they depended on the use of animal or cable power, almost the entire income from their operation was derived from passenger traffic. It is only recently, since the introduction of electricity and the extension of interurban roads, that any income has been obtained from freight, mail, and express business, and even at the last census, although a considerable number of companies reported income from these sources, the total amount reported represented less than 2 per cent of the total earnings. Yet these subordinate branches of railway service, representing as they do a development in operating practice that seems certain of a large future growth, possess considerable interest. The relative importance of the passenger service and the others naturally varies greatly with the size and character of the companies and the locality served.

[1] Earnings reduced to track, car-mile, and passenger units are given in the section on "general results of operation," p. 169.
[2] See also p. 92.

TABLE 107.—OPERATING EARNINGS, BY SOURCE, OF COMPANIES, CLASSIFIED ACCORDING TO INCOME FROM RAILWAY OPERATIONS: 1907 AND 1902.

SOURCE.	Census.	Total, all companies.	CLASSIFICATION GROUP. $1,000,000 and over. (A)	$500,000 but less than $1,000,000. (B)	$250,000 but less than $500,000. (C)	$100,000 but less than $250,000. (D)	Less than $100,000. (E)	Per cent of total. A	B	C	D	E
Number of companies	1907	[1] 939	76	50	80	182	551	8.1	5.3	8.5	19.4	58.7
	1902	[2] 799	44	28	53	112	562	5.5	3.5	6.6	14.0	70.3
Per cent of increase		17.5	72.7	78.6	50.9	62.5	[3] 2.0					
Operating earnings, total	1907	$418,187,858	$297,062,346	$36,597,437	$30,210,402	$31,752,493	$22,565,180	71.0	8.8	7.2	7.6	5.4
	1902	$247,553,099	$167,743,251	$20,531,216	$19,212,160	$19,440,952	$20,626,420	67.8	8.3	7.8	7.9	8.3
Per cent of increase		68.9	77.1	78.3	57.2	63.3	9.4					
Passengers	1907	$382,132,494	$280,387,112	$32,566,516	$25,610,001	$25,529,466	$18,039,399	73.4	8.5	6.7	6.7	4.7
	1902	$233,821,548	$162,529,682	$19,318,842	$17,447,179	$17,300,180	$17,225,065	69.5	8.3	7.5	7.4	7.4
Per cent of increase		63.4	72.5	68.6	46.8	47.6	4.7					
Chartered cars	1907	$705,261	$437,082	$84,709	$70,583	$74,600	$38,287	62.0	12.0	10.0	10.6	5.4
	1902	$303,608	$172,269	$31,329	$32,701	$36,627	$30,682	56.7	10.3	10.8	12.1	10.1
Per cent of increase		132.3	153.7	170.4	115.8	103.7	24.8					
Freight	1907	$5,231,215	$1,571,763	$912,903	$1,045,410	$1,030,376	$670,763	30.0	17.5	20.0	19.7	12.8
	1902	$1,038,097	$164,712	$50,422	$220,640	$166,482	$435,841	15.9	4.9	21.3	16.0	42.0
Per cent of increase		403.9	854.2	1,710.5	373.8	518.9	53.9					
Mail	1907	$646,575	$448,462	$43,283	$38,648	$62,024	$54,158	69.4	6.7	6.0	9.6	8.4
	1902	$432,080	$287,407	$25,273	$34,746	$38,976	$45,678	66.5	5.9	8.0	9.0	10.6
Per cent of increase		49.6	56.0	71.3	11.2	59.1	18.6					
Express	1907	$1,560,802	$873,980	$250,725	$146,201	$194,083	$95,813	56.0	16.1	9.4	12.4	6.1
	1902	$401,672	$144,405	$21,006	$97,546	$79,135	$59,520	36.0	5.2	24.3	19.7	14.8
Per cent of increase		288.6	505.0	1,093.6	49.9	145.3	61.0					
Sale of electric current	1907	$20,003,302	$7,538,308	$2,225,519	$2,727,101	$4,318,056	$3,284,318	37.5	11.1	13.6	21.5	16.3
	1902	$7,703,574	$2,145,348	$784,957	$936,871	$1,458,066	$2,378,332	27.8	10.2	12.2	18.9	30.9
Per cent of increase		160.8	251.4	183.5	191.1	196.1	38.1					
Miscellaneous sources	1907	$7,818,209	$5,805,639	$513,782	$572,458	$543,888	$382,442	74.3	6.6	7.3	7.0	4.9
	1902	$3,853,420	$2,299,368	$299,387	$442,477	$361,486	$450,702	59.7	7.8	11.5	9.4	11.7
Per cent of increase		102.9	152.5	71.6	29.4	50.5	[3] 15.1					

[1] Exclusive of 6 companies which failed to furnish this information. [2] Exclusive of 18 companies which failed to furnish this information. [3] Decrease.

The exclusion of the income from sale of current in classifying the companies according to size obviously results in the assignment of some companies to classes made up of smaller companies than the class to which they would have been assigned in a classification based on gross income. The average operating earnings per company in 1907, including income from the sale of current, were $445,354; and the averages for the various classes were as follows: A, $3,908,715; B, $731,949; C, $377,630; D, $174,464; E, $40,953. The operating earnings shown for each class as a whole are larger for 1907 than for 1902, the increases varying from 9.4 per cent for Class E to 78.3 per cent for Class B. The operating earnings per company also increased for each class except Class B, in which there was a decrease per company, although, as just stated, the class as a whole shows a larger percentage of increase than any of the others.

The largest companies, comprising Class A, account for over three-fifths of the total earnings from passengers, chartered cars, mail, and miscellaneous sources in 1907. Indeed, the only specified sources of earnings for which these large companies did not report more than half of the respective totals were freight service and the sale of electric current. Of the total freight earnings, the companies belonging to Class A still show the largest share (30 per cent), but the proportions are more evenly distributed among the classes than for any other item. The companies in Classes A and B show an increased proportion of the total in 1907 as compared with 1902 for each specified source of earnings, while with but few exceptions the companies of Classes C, D, and E show correspondingly decreased proportion. Such a statistical showing was to have been expected as a result both of the normal growth of companies during the five-year interval and of the numerous consolidations that have been effected.

The operating earnings of all companies and of the several income classes are distributed among the specified sources by percentages, rather than by absolute amounts, in Table 108.

TABLE 108.—*Per cent distribution, by source, of operating earnings of companies, classified according to income from railway operations: 1907 and 1902.*

SOURCE.	Census.	PER CENT OF OPERATING EARNINGS. Total.	A	B	C	D	E
Operating earnings	1907	100.0	100.0	100.0	100.0	100.0	100.0
	1902	100.0	100.0	100.0	100.0	100.0	100.0
Passengers	1907	91.4	94.4	89.0	84.8	80.4	79.9
	1902	94.5	96.9	94.1	90.8	89.0	83.5
Chartered cars	1907	0.2	0.1	0.2	0.2	0.2	0.2
	1902	0.1	0.1	0.2	0.2	0.2	0.1
Freight	1907	1.3	0.5	2.5	3.5	3.2	3.0
	1902	0.4	0.1	0.2	1.1	0.9	2.1
Mail	1907	0.2	0.2	0.1	0.1	0.2	0.2
	1902	0.2	0.2	0.1	0.2	0.2	0.2
Express	1907	0.4	0.3	0.7	0.5	0.6	0.4
	1902	0.2	0.1	0.1	0.5	0.4	0.3
Sale of electric current	1907	4.8	2.5	6.1	9.0	13.6	14.6
	1902	3.1	1.3	3.8	4.9	7.5	11.5
Miscellaneous sources	1907	1.9	2.0	1.4	1.9	1.7	1.7
	1902	1.6	1.4	1.5	2.3	1.9	2.2

The statistics in this table show clearly how largely the business of electric railways is still dependent upon passenger traffic. Although the freight and electric-light departments of electric-railway business developed greatly during the five years intervening between the censuses, the earnings from passengers carried still constituted over 90 per cent of all earnings in 1907. It is noteworthy that the percentages increase regularly with increase in the size of companies from the 79.9 per cent shown for Class E to the 94.4 per cent shown for Class A; and that the same gradation appears in the statistics for 1902.

As compared with 1902, 1907 shows a decrease in the relative importance of passenger earnings for all classes. The counterbalancing increases are in every case almost entirely confined to the items freight and express service and sale of current, since there are no considerable changes in any other items. All companies combined and the several classes show a proportionate increase of earnings from freight service, and an even greater one for earnings from sale of current. Freight service attained its greatest relative importance among companies of medium size, as 3.5 per cent of the earnings shown for Class C are attributed to that source; and sale of current had its greatest relative significance for the small companies of Classes E and D, 14.6 per cent and 13.6 per cent, respectively, of the earnings of these classes, being attributed to this source.

Operating earnings of companies with and without commercial lighting, and of part-time companies.—The operating earnings of companies "Without commercial lighting" and "With commercial lighting," respectively, and of "Part-time" companies, are distributed among the specified sources by their absolute amounts in Table 109, and by their percentages in Table 110.

TABLE 109.—OPERATING EARNINGS, BY SOURCE, OF COMPANIES WITH AND WITHOUT COMMERCIAL LIGHTING, AND OF PART-TIME COMPANIES: 1907 AND 1902.

SOURCE.	TOTAL, ALL COMPANIES.		CLASSIFICATION GROUP.									
			Without commercial lighting.[1]		With commercial lighting.		Part-time.		Per cent of increase.			
	1907	1902	1907	1902	1907	1902	1907	1902	Total.	Without lighting.	With lighting.	Part-time.
Number of companies	[2] 939	[3] 799	709	630	[4] 175	112	55	57	17.5	12.5	56.3	[5] 3.5
Operating earnings, total	$418,187,858	$247,553,999	$347,955,013	$222,989,978	$68,986,416	$22,088,656	$1,246,429	$2,475,365	68.9	56.0	212.3	[5] 49.6
Passengers	382,132,494	238,821,548	331,504,175	216,392,393	49,500,101	15,084,584	1,128,158	2,344,571	63.4	53.2	228.2	[5] 51.9
Chartered cars	705,201	303,608	559,853	261,654	144,602	38,949	746	3,005	132.3	114.0	271.4	[5] 75.2
Freight	5,231,215	1,038,097	4,077,049	834,233	1,121,752	182,076	32,414	21,788	403.9	388.7	516.1	48.8
Mail	646,575	432,080	577,721	409,376	68,478	20,623	376	2,081	49.6	41.1	232.0	[5] 81.9
Express	1,560,802	401,672	1,139,824	378,693	413,075	17,560	7,903	5,419	288.6	201.0	2,257.5	29.2
Sale of electric current	20,093,302	7,703,574	3,504,084	1,196,025	16,530,807	6,445,542	58,411	62,007	160.8	193.0	156.5	[5] 5.8
Miscellaneous sources	7,818,209	3,853,420	6,592,307	3,517,604	1,206,581	299,322	19,321	36,494	102.9	87.4	303.1	[5] 47.1

[1] Includes all full-time operating companies not engaged in regular light and power business, without regard to kind of power used.
[2] Exclusive of 6 companies which failed to furnish this information.
[3] Exclusive of 18 companies which failed to furnish this information.
[4] Exclusive of 2 part-time companies.
[5] Decrease.

TABLE 110.—*Per cent distribution, by source, of operating earnings of companies with and without commercial lighting, and of part-time companies: 1907 and 1902.*

SOURCE.	PER CENT OF OPERATING EARNINGS.							
	Total, all companies.		Without commercial lighting.		With commercial lighting.		Part-time.	
	1907	1902	1907	1902	1907	1902	1907	1902
Operating earnings	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Passengers	91.4	94.5	95.3	97.0	71.8	68.3	90.5	94.7
Chartered cars	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.1
Freight	1.3	0.4	1.2	0.4	1.6	0.8	2.6	0.9
Mail	0.2	0.2	0.2	0.2	0.1	0.1	(1)	0.1
Express	0.4	0.2	0.3	0.2	0.6	0.1	0.6	0.2
Sale of electric current	4.8	3.1	1.0	0.5	24.0	29.2	4.7	2.5
Miscellaneous sources	1.9	1.6	1.9	1.6	1.7	1.3	1.6	1.5

[1] Less than one-tenth of 1 per cent.

As previously explained, the amount of income from the sale of current reported by companies without commercial lighting represents small amounts received from the incidental sale of current for power, from the sale of current to other railway companies, and from the sale of current to electric light and power companies for distribution. Although the proportion of total income from sale of current for companies classified as without commercial lighting was slightly larger in 1907 than in 1902, it did not rise above 1 per cent of the total even in 1907. The service, in the case of such companies, can not properly be considered as constituting a regular light and power department, since it is in the nature of a wholesale business and is not attended by the expense of distributing the current.

Table 110 makes it clear, as might have been expected, that the sale of current by the companies "With commercial lighting" changes the relative proportions of earnings from sale of current and from passenger service, inversely, and that it does not appreciably affect the proportions attributable to the

other sources, severally or as a whole. And even as to these proportions there was a tendency to uniformity in the census interval, since passenger earnings fell from 97 per cent to 95.3 per cent of gross operating earnings in the case of companies without commercial lighting, while in the case of companies with commercial lighting the same proportion increased from 68.3 per cent to 71.8 per cent; and on the other hand, income from sale of current increased for companies without commercial lighting from five-tenths of 1 per cent to 1 per cent, while it decreased for the other class from 29.2 per cent to 24 per cent. The part-time companies also show a relative decrease in passenger earnings and counterbalancing increases in sale of current and freight service.

Operating earnings of companies, classified according to kind of system and character of service.—The operating earnings for the companies, classified according to kind of system and character of service, are distributed among the specified sources by absolute amounts in Table 111, and by their percentages in Table 112.

TABLE 111.—OPERATING EARNINGS, BY SOURCE, OF COMPANIES, CLASSIFIED ACCORDING TO KIND OF SYSTEM AND CHARACTER OF SERVICE: 1907.

SOURCE.	Total, all companies.	CLASSIFICATION GROUP.				
		Kind of system.		Character of service.		
		Electric elevated and subway railways.[1]	Electric surface railways.[2]	Selected interurban lines.	Selected small urban roads.	All other railways.
Number of companies	[3] 939	6	933	50	100	789
Operating earnings, total	$418,187,858	$33,874,054	$384,313,804	$29,155,121	$1,407,019	$387,625,718
Passengers	382,132,494	31,601,516	350,530,978	25,485,341	1,288,892	355,358,261
Chartered cars	705,261	.....	705,261	100,302	1,347	603,612
Freight	5,231,215	.....	5,231,215	1,431,811	74,519	3,724,885
Mail	646,575	17,948	628,627	37,082	7,782	601,711
Express	1,560,802	31,721	1,529,081	420,710	7,405	1,132,687
Sale of electric current	20,093,302	107,775	19,985,527	1,209,308	4,085	18,879,909
Miscellaneous sources	7,818,209	2,115,094	5,703,115	470,567	22,989	7,324,653

[1] Exclusive of the mixed elevated, subway, and surface systems in Boston, Mass., and Philadelphia, Pa.
[2] Includes the statistics for the few railways not operated by electricity.
[3] Exclusive of 6 companies which failed to furnish this information.

TABLE 112.—*Per cent distribution, by source, of operating earnings of companies, classified according to kind of system and character of service: 1907.*

SOURCE.	Total, all companies.	PER CENT OF OPERATING EARNINGS.				
		Kind of system.		Character of service.		
		Electric elevated and subway railways.	Electric surface railways.	Selected interurban lines.	Selected small urban roads.	All other railways.
Operating earnings	100.0	100.0	100.0	100.0	100.0	100.0
Passengers	91.4	93.3	91.2	87.4	91.6	91.7
Chartered cars	0.2	.....	0.2	0.3	0.1	0.2
Freight	1.3	.....	1.4	4.9	5.3	1.0
Mail	0.2	0.1	0.2	0.1	0.6	0.2
Express	0.4	0.1	0.4	1.4	0.5	0.3
Sale of electric current	4.8	0.3	5.2	4.1	0.3	4.9
Miscellaneous sources	1.9	6.2	1.5	1.6	1.6	1.9

As the selected groups in these tables are typical rather than comprehensive, the principal interest of the statistics lies in the figures showing the per cent distribution of the total operating earnings rather than in the figures showing absolute amounts. Aside from the miscellaneous earnings from advertising, rents, etc., the passenger receipts are practically the only source of revenue on elevated and subway railways.

The per cent ratio of passenger earnings to total operating earnings is considerably lower for the 50 selected interurban lines than for any other class in the table. A low ratio was to be expected, in view of the extent to which such roads have developed freight and express business during recent years. Though the selected small urban roads show a larger proportion for freight than do the interurban, it appears from Table 111 that the absolute amount received by the 100 small urban roads was only about one-twentieth the amount reported by the 50 interurban. And even this small amount represents for the most part the earnings of two or three companies carrying a special line of freight on short hauls.

Operating earnings, by states.—Table 116 presents a detailed analysis of the statistics of operating earnings for 1907 and 1902, for the geographic divisions and for the several states. New York, with its dense centers of population, naturally leads in total earnings, with $89,856,329 in 1907, while North and South Dakota bring up the rear, with combined earnings of only $112,079. New York also ranks first in earnings from mail service, $93,186; from express business, $438,994; and from miscellaneous sources, $2,658,612. Ohio shows the largest amount reported for revenue from freight, $693,638. In 1902 the leading states were the same, except that Michigan, instead of New York, ranked first in the amount of revenue from express business. In earnings from sale of electric current, Ohio led in 1907, with $1,607,599, and Georgia in 1902, with $727,847.

TABLE 113.—*Per cent distribution, by source, of operating earnings, by geographic divisions: 1907.*

DIVISION.	PER CENT OF TOTAL FOR UNITED STATES.							
	Operating earnings, total.	Passengers.	Chartered cars.	Freight.	Mail.	Express.	Sale of electric current.	Miscellaneous sources.
United States	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
North Atlantic	46.3	48.1	45.7	20.4	44.7	50.0	17.8	51.5
South Atlantic	6.8	6.0	3.6	4.0	9.3	4.9	23.7	5.4
North Central	31.8	31.6	29.8	45.1	36.1	37.1	29.5	33.8
South Central	5.9	5.5	4.8	3.2	3.0	0.6	14.7	3.6
Western	9.2	8.8	16.1	27.2	6.9	7.4	14.4	5.7

The railways in the North Atlantic and North Central divisions combined reported over three-fourths of the total operating earnings of all companies, but, as was the case in respect to other traffic statistics, the Western states showed the highest rate of gain in earnings, 128.3 per cent. Of the several classes of revenue in 1907, the most marked examples of localization appear in miscellaneous earnings and express earnings in the North Atlantic division. This division also reported 48.1 per cent of all passenger earnings, 45.7 per cent of the total revenue from chartered cars, and 44.7 per cent of the total receipts from carrying mail. The largest proportion of the total freight earnings was reported for the North Central division, which also reported the largest percentage of the earnings from the sale of electric current.

Miscellaneous income.—The term "Miscellaneous income" is used to designate all receipts or income from sources other than the operation of railway property. In 1907 miscellaneous income of operating companies amounted in the aggregate to $11,556,396 as compared with $2,950,628 in 1902, an increase of $8,605,768, or 291.7 per cent. This apparently large increase may be due partly to the fact that the schedule of inquiry for 1902 did not call for full details concerning this class of income. It is thus possible that it was not fully reported or entirely separated from other earnings at that time. Table 114 analyzes the aggregate miscellaneous income for 1907 and shows the totals for geographic divisions and states.

The total, $3,255,618, received by all operating companies in the United States from interest on bonds and dividends on stocks of other electric railways, represents an average return of only 1.55 per cent on the book value of such holdings as reported to the Census Bureau in the balance-sheet statements of the companies. In part explanation of this showing, it should be stated that of the 108 operating companies that reported such security holdings, only about two-fifths reported any return on the investments. It is probable that a very great proportion of these securities were common stock, acquired for purposes of control or consolidation, with little or no expectation of immediate dividends. Even with this explanation, however, it should be added that the figures are probably among the least reliable of all with which the census of street and electric railways has to deal.

TABLE 114.—*Miscellaneous income, by source, of operating companies, by states and geographic divisions: 1907.*

STATE OR TERRITORY.	Total.	SOURCE.		
		Interest on bonds and dividends on stocks of other electric railways.	Other permanent investments.	Other miscellaneous income.
United States	$11,556,396	$3,255,618	$4,972,164	$3,328,614
North Atlantic division	3,400,886	1,201,888	680,068	1,518,930
Maine	33,548	.....	29,561	3,987
New Hampshire	3,225	.....	.....	3,225
Vermont	12,803	.....	10,000	2,863
Massachusetts	148,459	.....	2,599	145,860
Rhode Island	26,038	19,120	.....	6,918
Connecticut	107,427	8,687	85,324	13,416
New York	1,829,344	491,263	329,027	1,009,054
New Jersey	187,126	22,237	67,969	96,920
Pennsylvania	1,052,856	660,581	155,588	236,687
South Atlantic division	1,072,908	115,253	795,093	162,652
Delaware	2,015	.....	.....	2,015
Maryland and District of Columbia	515,379	56,088	421,420	37,871
Virginia	249,242	36,750	143,158	69,334
West Virginia	25,925	.....	9,505	16,420
North Carolina	109,008	22,415	68,739	17,854
South Carolina	62,840	.....	61,374	1,466
Georgia	104,258	.....	90,897	13,361
Florida	4,331	.....	.....	4,331
North Central division	2,500,419	547,725	1,096,074	856,620
Ohio	882,226	145,747	568,505	167,974
Indiana	272,223	20,073	134,058	117,192
Illinois	503,598	26,474	202,158	274,966
Michigan	83,386	.....	26,004	57,382
Wisconsin	527,753	354,031	79,593	94,129
Minnesota	8,138	.....	.....	8,138
Iowa	95,210	500	31,454	63,256
Missouri	82,484	.....	30,817	51,667
North and South Dakota	50	.....	.....	50
Nebraska	6,348	.....	.....	6,348
Kansas	39,033	.....	23,485	15,548
South Central division	1,804,383	780,666	963,128	60,589
Kentucky	15,835	.....	14,022	1,813
Tennessee	37,100	20,000	14,053	3,047
Alabama	101,497	674	97,285	3,538
Mississippi	88,520	.....	78,718	9,802
Louisiana	1,486,871	759,992	699,928	26,951
Arkansas	59,442	.....	59,036	406
Oklahoma	13,761	.....	86	13,675
Texas	1,357	.....	.....	1,357
Western division	2,777,710	610,086	1,437,801	729,823
Montana	142,420	.....	137,266	5,154
Colorado	352,292	306,974	1,296	44,022
Washington	503,817	13,200	211,582	279,035
Oregon	896,316	284,955	598,090	13,271
California	854,084	4,957	487,219	361,908
All other Western states and territories[1]	28,781	.....	2,348	26,433
Hawaii and Porto Rico	8,421	3,177	.....	5,244

[1] Includes states and territories as follows: Nevada, New Mexico, and Utah.

The income from "Other permanent investments," representing the return to the railway companies on their investments in all sorts of allied industries, amounted to $4,972,164, or an average rate of 3.64 per cent on a total reported investment of $136,768,104. The income reported for this item is, in the majority of cases, the net amount, and the average rate of return on the total investment, therefore, represents a fair rate of interest. About two-thirds of the 198 operating companies that reported investments of this character reported also an income from this source.

The income from all sources other than those specified was consolidated for census purposes under a single heading, designated as "Other miscellaneous income." It amounted in 1907 to $3,328,614. This total is made up of interest on deposits; rent of tracks, the use of which had been abandoned by the lessor; rent of land and buildings, conducted as an outside investment; etc.

An interesting feature of interurban railway promotion was brought to light by a miscellaneous income item of $26,915, which was reported as "subsidy." The company explained that a subsidy had been voted the railway by farmers and merchants along the right of way, to be paid in two annual installments, and that the amount reported for 1907 was the second or last installment. The proceeds of this subsidy were used to pay the interest on bonds for the first two years after the road began operation.

Miscellaneous income shows little or no tendency to vary directly or inversely with operating earnings, either from time to time or from company to company. Indeed, the miscellaneous income item seems to vary according to no discoverable principle. Thus at the census of 1902, 53.1 per cent of the total for this item was reported for New York and 29.3 per cent for Illinois, a total of 82.4 per cent for these two states; while in 1907 the percentages were only 15.8 for New York and 4.4 for Illinois, a total for the two of only 20.2 per cent. Table 114 shows that the states of the North Atlantic division reported by far the largest part of the totals for interest on bonds and dividends on stocks of the electric railways, and for other miscellaneous income; but that it reported the smallest part of the total for income from other permanent investments.

Table 115 presents the miscellaneous income of operating companies by income classes. It appears by the table that although the companies of Class A—the largest companies—still received in 1907 over one-half of all the miscellaneous income, the proportion for the class had fallen since 1902 from almost 90 per cent.

TABLE 115.—*Miscellaneous income of operating companies, classified according to income from railway operations: 1907 and 1902.*

CLASSIFICATION GROUP.	1907	1902
Total, all companies	$11,556,396	$2,950,628
A. $1,000,000 and over	$6,008,657	$2,585,249
Per cent of total	52.0	87.6
B. $500,000 but less than $1,000,000	$2,047,145	$32,815
Per cent of total	17.7	1.1
C. $250,000 but less than $500,000	$607,264	$80,872
Per cent of total	5.3	2.7
D. $100,000 but less than $250,000	$1,732,025	$54,624
Per cent of total	15.0	1.9
E. Less than $100,000	$1,161,305	$197,068
Per cent of total	10.0	6.7

TABLE 116.—OPERATING EARNINGS, BY SOURCE, BY STATES AND GEOGRAPHIC DIVISIONS: 1907 AND 1902.

STATE OR TERRITORY.	Census.	Number of companies.	OPERATING EARNINGS. Total.	Passengers.	Chartered cars.	Freight.	Mail.	Express.	Sale of electric current.	Miscellaneous sources.
United States	1907	[1] 930	$418,187,858	$382,132,494	$705,261	$5,231,215	$646,575	$1,560,802	$20,093,302	$7,818,209
	1902	[2] 700	247,553,999	233,821,548	303,608	1,038,097	432,080	401,672	7,703,574	3,853,420
North Atlantic division	1907	365	193,826,057	183,757,513	322,326	1,008,075	289,234	780,341	3,582,074	4,026,494
	1902	356	131,034,080	126,492,180	157,241	416,527	200,736	125,419	1,362,546	2,279,431
Maine	1907	17	2,259,649	1,872,405	4,217	95,075	9,260	13,135	228,537	37,020
	1902	19	1,542,508	1,311,198	251	80,380	6,179	9,409	102,318	32,773
New Hampshire	1907	16	1,088,957	1,022,365	3,575	13,726	4,350	550	21,293	23,098
	1902	7	604,131	579,546	.....	1,182	4,050	120	10,625	8,608
Vermont	1907	10	441,389	380,659	826	38,622	2,610	3,850	9,779	5,043
	1902	9	249,228	216,013	.....	23,351	2,201	1,768	.....	5,895
Massachusetts	1907	62	30,925,503	29,524,676	103,489	72,640	73,743	50,666	471,704	628,585
	1902	74	23,617,570	22,807,316	43,182	12,876	48,454	4,140	250,109	451,493
Rhode Island	1907	5	4,432,099	4,120,599	15,757	33,917	3,763	143,827	69,489	36,647
	1902	7	2,964,260	2,874,255	1,963	43,835	1,769	536	25,687	16,215
Connecticut	1907	8	7,271,569	6,257,553	21,770	32,405	9,642	49,304	763,942	136,953
	1902	21	4,284,089	3,820,094	12,435	16,652	6,807	16,660	348,237	54,204
New York	1907	101	89,856,329	84,605,880	77,453	612,865	93,186	438,994	1,369,339	2,658,612
	1902	96	59,315,606	57,347,930	53,418	197,324	65,077	64,213	471,509	1,116,135
New Jersey	1907	24	12,805,532	12,682,531	40,108	20,105	7,252	198	83,494	61,844
	1902	25	8,137,477	7,989,544	21,585	5,364	4,822	96	15,459	100,607
Pennsylvania	1907	122	44,654,130	43,281,845	55,131	148,720	85,428	79,817	564,497	438,692
	1902	98	30,319,211	29,537,284	24,407	35,563	61,377	28,477	138,602	493,501
South Atlantic division	1907	100	28,531,988	22,985,107	25,081	210,613	59,924	76,333	4,756,566	418,364
	1902	75	14,989,177	12,794,719	18,354	74,735	46,999	13,187	1,754,372	286,811
Delaware	1907	4	756,168	674,456	584	7,421	64	15	69,073	4,555
	1902	3	500,412	476,539	494	2,270	.....	.....	5,112	15,997
Maryland and District of Columbia	1907	19	11,617,214	11,246,502	4,419	35,897	48,975	15,693	145,050	120,678
	1902	18	7,893,313	7,599,763	9,949	16,310	42,168	11,169	62,683	151,271
Virginia	1907	22	5,152,173	3,531,681	6,390	70,356	4,184	100	1,437,087	102,375
	1902	16	1,553,478	1,103,732	2,036	12,791	1,617	368	387,031	45,903
West Virginia	1907	15	2,562,800	2,139,823	1,925	18,372	1,631	35,100	333,565	32,384
	1902	8	1,102,171	958,805	100	6,160	755	.....	126,117	10,234
North Carolina	1907	11	1,186,469	680,472	845	14,953	453	2,358	473,651	13,737
	1902	7	437,259	247,812	75	8,367	.....	1,500	163,657	15,848

[1] Exclusive of 6 companies which failed to furnish this information.

[2] Exclusive of 18 companies which failed to furnish this information.

TABLE 116.—OPERATING EARNINGS, BY SOURCE, BY STATES AND GEOGRAPHIC DIVISIONS: 1907 AND 1902—Cont'd.

STATE OR TERRITORY.	Census.	Number of companies.	OPERATING EARNINGS. Total.	Passengers.	Chartered cars.	Freight.	Mail.	Express.	Sale of electric current.	Miscellaneous sources.
South Atlantic division—Continued.										
South Carolina	1907	7	$1,273,617	$793,950	$1,186	$17,384	$856	$10,376	$437,483	$12,376
	1902	7	597,577	401,553	61	16,579	1,504	.....	171,562	6,318
Georgia	1907	12	4,616,337	2,962,857	7,592	31,574	2,919	12,487	1,484,966	113,942
	1902	10	2,375,224	1,504,982	4,972	9,772	440	150	727,847	37,061
Florida	1907	10	1,367,210	955,360	2,140	14,656	842	204	375,691	18,317
	1902	6	529,743	411,533	667	2,486	515	.....	110,363	4,179
North Central division	1907	293	132,783,152	120,840,459	210,514	2,361,058	233,451	579,355	5,917,478	2,640,837
	1902	235	73,285,248	68,751,008	100,713	326,619	145,621	253,050	2,729,138	979,099
Ohio	1907	73	30,392,675	27,007,611	64,887	693,638	48,141	334,312	1,607,599	636,487
	1902	62	16,587,693	15,293,916	37,450	211,842	35,171	57,670	602,619	349,016
Indiana	1907	33	11,224,545	9,815,612	19,536	463,122	6,951	73,254	383,177	462,893
	1902	26	3,813,076	3,532,579	6,858	18,781	1,977	17,893	144,323	90,665
Illinois	1907	70	40,448,084	37,453,153	33,685	450,315	66,965	120,583	1,301,130	1,022,253
	1902	48	24,164,965	23,270,828	12,615	28,165	42,506	10,148	519,958	285,655
Michigan	1907	24	10,948,588	9,915,719	45,348	519,032	18,483	10,114	340,855	97,637
	1902	24	6,404,601	6,014,842	20,313	47,904	11,143	153,224	195,428	51,837
Wisconsin	1907	20	6,135,064	5,069,530	15,886	4,230	1,348	6,607	971,995	65,468
	1902	17	3,902,050	3,155,168	11,489	.....	765	582	690,284	43,771
Minnesota	1907	5	7,048,370	6,943,683	9,069	1,871	4,915	.....	60,656	28,176
	1902	5	3,727,648	3,659,483	4,138	.....	4,335	.....	49,680	10,012
Iowa	1907	24	4,295,930	3,415,603	1,435	173,415	6,831	12,109	579,115	107,422
	1902	22	2,384,421	1,959,965	954	17,548	5,299	9,132	296,730	94,793
Missouri	1907	14	18,000,248	17,266,141	13,605	34,300	67,945	15,772	452,174	150,311
	1902	16	10,691,220	10,422,536	5,652	7,379	41,071	4,392	172,036	38,154
North and South Dakota [1]	1907	5	112,079	100,273	.....	.....	613	.....	.....	11,193
Nebraska	1907	8	2,737,756	2,584,425	3,435	754	9,285	4,599	84,041	51,217
	1902	4	1,148,994	1,107,404	1,044	.....	2,698	.....	35,073	2,685
Kansas	1907	17	1,439,813	1,268,709	3,128	19,481	1,974	2,005	136,736	7,780
	1902	11	370,481	343,197	200	.....	566	.....	23,007	3,511
South Central division	1907	90	24,548,631	21,689,302	33,531	168,301	19,121	9,264	2,944,268	284,904
	1902	66	11,385,391	10,489,285	10,620	41,259	10,656	6,243	746,376	80,952
Kentucky	1907	13	4,776,098	4,441,781	7,319	52,339	2,546	.....	160,629	111,484
	1902	12	2,932,901	2,780,487	1,407	2,500	2,168	4,162	133,337	8,840
Tennessee	1907	9	4,443,891	3,698,013	5,833	4,508	7,967	.....	701,683	25,887
	1902	8	1,866,835	1,759,680	68	1,239	4,836	.....	86,901	14,111
Alabama	1907	10	3,365,079	2,577,777	6,304	78,530	2,622	282	671,425	29,039
	1902	9	1,497,351	1,135,266	2,211	34,494	1,415	1,362	318,660	3,943
Mississippi	1907	8	817,760	488,084	143	18,733	400	833	308,053	1,523
	1902	5	258,654	154,597	113	.....	.....	.....	103,236	708
Louisiana	1907	11	4,508,104	4,284,357	5,604	.....	1,740	.....	191,728	24,675
	1902	8	2,016,244	2,835,262	4,457	.....	1,682	.....	37,753	31,090
Arkansas	1907	8	1,215,954	824,335	1,001	444	240	245	383,225	6,464
	1902	7	371,560	322,805	114	26	.....	.....	45,630	2,985
Oklahoma [2]	1907	8	564,196	520,455	942	12,182	674	708	16,708	3,437
Texas	1907	23	4,856,640	4,245,500	6,385	1,565	2,932	7,106	510,757	82,395
	1902	17	1,547,846	1,501,188	3,250	3,000	555	719	20,859	19,275
Western division	1907	61	38,498,030	33,460,113	115,809	1,423,168	44,845	115,500	2,892,976	447,610
	1902	67	16,860,103	15,294,356	16,680	178,957	28,068	3,773	1,111,142	227,127
Montana	1907	5	700,201	613,251	.....	54,575	.....	.....	77,993	14,382
	1902	5	402,023	382,452	.....	50,544	365	34	43,284	15,344
Colorado	1907	11	4,130,962	3,696,500	15,887	55,856	1,584	.....	344,468	16,667
	1902	7	2,227,286	2,001,824	8,106	.....	2,000	.....	111,104	14,252
Washington	1907	14	7,898,743	6,070,685	15,980	529,567	9,150	16,060	1,182,423	74,875
	1902	8	2,542,906	1,813,156	3,233	63,501	1,883	.....	641,800	19,333
Oregon	1907	8	2,731,674	2,520,990	.....	164,551	6,690	600	.....	29,843
	1902	6	1,042,805	969,231	507	17,287	2,904	163	33,522	19,281
California	1907	41	20,691,713	19,233,083	75,059	600,818	26,283	97,346	366,566	292,558
	1902	35	9,967,288	9,464,723	3,637	47,625	20,116	3,576	279,216	148,395
All other Western states and territories [3]	1907	12	2,284,737	1,316,604	6,883	17,801	1,138	1,503	921,526	19,282
	1902	6	587,705	572,970	1,107	.....	800	.....	2,216	10,522
Hawaii and Porto Rico [4]	1907	4	745,338	611,467	3,337	13,239	60	1,560	108,081	7,594
	1902	5	515,913	485,258	301	25	.....	.....	26,454	3,875

[1] No company reported in 1902 for North Dakota, and the 1 company in South Dakota in 1902 failed to furnish this information.
[2] No company reported in 1902.
[3] Includes states and territories as follows: 1907—Arizona, 4; Idaho, 2; Nevada, 1; New Mexico, 2; Utah, 3. 1902—Arizona, 1; Idaho, 1; New Mexico, 1; Utah, 3.
[4] Includes companies as follows: 1907—Hawaii, 1; Porto Rico, 3. 1902—Hawaii, 3; Porto Rico, 2.

III.

OPERATING EXPENSES.

Differences in length of track, in character of roadbed and rolling stock, in gradient, in kind of power used, in character of territory traversed, in cost of labor, in relative importance of allied industries, and many other factors have more or less effect on the amounts expended annually by street and electric railways for the different items of operating expenses. In the case of no two roads are all these conditions the same, and comparisons between different companies or groups of companies are therefore of interest and value only because they illustrate the variations. To be of the greatest value, comparative statistics should be accompanied by a detailed description of the equipment, methods, and other conditions which affect the financial results of operation of the different companies. This is obviously impossible in a census report which must cover all companies, but the influence of these conditions should be kept in mind in considering the statistics. As the most disturbing single factor is, perhaps, the operation of commercial electric light and power plants or other industries by the railway companies, the census methods of compiling the statistics for such companies should be referred to in this connection.[1]

The operating cost per unit is commonly used in judging the efficiency of the operating management. By itself, however, it is not an indication of the profitableness of railway properties, as taxes and other fixed charges must be taken into account. Indeed, when the operating expenses for only a few companies are compared, the local conditions under which each company operates must be thoroughly understood, or the cost per unit will lead to erroneous conclusions. A comparison of operating expenses with earnings, reduced to units of equipment and traffic, will be found in the section on "General results of operation," page 169.

As it is impossible to present financial data for each company in the census statistics, state and other group totals for operating expenses can be used for making comparisons and deductions only in a general way. Table 117 shows the operating expenses in detail for the United States as a whole at the censuses of 1907 and 1902, together with the per cent distribution of the total and the per cent of increase in each account. A list of the principal items chargeable to each account will be found in the appendix to this report.

A new account, "Hired equipment," appears in the report for 1907 under the subhead "Operation of cars." To this account was charged the rental of cars, equipment of cars, and other equipment, the total amount so charged being $573,829.

[1] See p. 116.

The standard form of accounting provides for two accounts, "damages" and "legal expenses in connection with damages," under the head of general expense, but apparently this segregation is not carried out by all companies, as many stated their inability to separate them. Accordingly the two accounts were combined in the census tables and designated as "Damages and legal expenses incident thereto."

The increase in the total operating expense from 1902 to 1907 was $108,996,655, or 76.6 per cent, as compared with an increase of $170,633,859, or 68.9 per cent in the operating earnings. The increase in the total deductions from income (taxes and fixed charges) for the same period was 78 per cent as compared with an increase of 71.6 per cent in gross income. While the totals for the entire country thus show a higher rate of increase in both operating expenses and fixed charges than in operating earnings and gross income, there are of course numerous exceptions to this prevailing tendency.

Of the more important items, the rate of increase in the cost of purchased power is conspicuously large, 218.8 per cent. The bulk of the amount reported under this head represents cost of current purchased from other railways and central electric stations, the remainder being for hired steam or water power. The total expense for maintenance of track and roadway also shows an unusually large gain, 132.6 per cent. In only one account, stable expenses, is an actual decrease indicated for the five years, but with the practical disappearance of the use of animal power for street railways a diminution in the amount reported under this head was to be expected.

One of the largest single items of expense is that for damages and legal expenses incident thereto, which amounted in 1907 to $18,176,305 as compared with $9,395,545 in 1902, an increase of $8,780,760, or 93.5 per cent. The ratio of the cost of damages to the total expenses increased from 6.6 per cent in 1902 to to 7.2 per cent in 1907. The average damage cost per fare passenger carried was one-fifth of 1 cent in 1902 as compared with nearly one-fourth of 1 cent in 1907. In other words, as the average fare received per passenger carried on all electric railways in 1902 was 4.94 cents and in 1907, 5.15 cents,[2] practically 4 per cent of the fare in 1902 and 4.7 per cent in 1907 was required for damages.

The cost of maintenance of ways and structures and of equipment together constituted over one-fifth of the total expense in 1907; the cost of operating power plants, a somewhat smaller proportion, 17.5 per cent; the cost of operation of cars, exactly two-fifths; the general or miscellaneous expenses, practically the same proportion as the cost of operation of cars, or 17.3 per cent; while wages, supplies, and expenses incident to electric-light service constituted only 2.5 per cent of the total. For two of the expense accounts,

[2] See Table 68.

"Operation of cars" and "General," decreased proportions of the total expenses are reported for 1907 as compared with 1902; the other four accounts show increased proportions. The remarkably uniform percentages of the aggregate for the several accounts for 1907 and 1902, indicate strongly the influence of the standardization of accounts and the exactness of the returns.

TABLE 117.—OPERATING EXPENSES, BY ACCOUNTS: 1907 AND 1902.

ACCOUNT.	1907		1902		Per cent of increase.
	Amount.	Per cent of total.	Amount.	Per cent of total.	
Number of companies	[1] 939	.....	[2] 799	.....	.....
Aggregate	$251,309,252	100.0	$142,312,597	100.0	76.6
Maintenance of ways and structures, total	25,675,327	10.2	12,118,296	8.5	111.9
Track and roadway	18,978,515	7.6	8,158,031	5.7	132.6
Electric, cable, etc., lines	4,777,697	1.9	2,959,182	2.1	61.5
Buildings and fixtures	1,919,115	0.8	1,000,483	0.7	91.8
Maintenance of equipment, total	31,485,810	12.5	16,676,532	11.7	88.8
Steam plant	2,652,364	1.1	1,353,789	1.0	95.9
Electric, cable, etc., plants	1,181,653	0.5	826,604	0.6	43.0
Cars	13,814,296	5.5	7,659,428	5.4	80.4
Electric, cable, etc., equipment of cars	10,753,321	4.3	5,325,125	3.7	101.9
Miscellaneous	886,724	0.4	668,875	0.5	32.6
Miscellaneous shop expenses	2,197,452	0.9	842,711	0.6	160.8
Operation of power plant, total	43,972,669	17.5	23,062,328	16.2	90.7
Wages	7,876,355	3.1	4,599,487	3.2	71.2
Fuel	21,058,259	8.4	12,827,322	9.0	64.2
Water	1,091,283	0.4	634,026	0.4	72.1
Lubricants and waste	675,885	0.3	500,967	0.4	34.9
Miscellaneous supplies and expenses	928,629	0.4	629,008	0.4	47.6
Purchased power	12,342,258	4.9	3,871,518	2.7	218.8
Operation of cars, total	100,542,108	40.0	62,454,679	43.9	61.0
Superintendence of transportation	3,545,418	1.4	2,598,935	1.8	36.4
Wages of conductors	37,814,621	15.0	24,070,921	16.9	57.1
Wages of motormen	37,021,885	14.7	24,662,872	17.3	50.1
Wages of other car-service employees	5,056,964	2.0	2,595,652	1.8	94.8
Wages of car-house employees	6,719,370	2.7	3,214,605	2.3	109.0
Car-service supplies	2,137,024	0.9	1,905,155	1.3	12.2
Miscellaneous car-service expenses	4,827,399	1.9	1,924,599	1.4	150.8
Hired equipment	573,820	0.2	(3)	.....	.....
Cleaning and sanding track	1,888,567	0.8	730,081	0.5	158.4
Removal of snow and ice	957,031	0.4	750,959	0.5	27.4
General, total	43,464,465	17.3	25,812,009	18.1	68.4
Salaries of general officers	4,837,969	1.9	2,993,123	2.1	61.6
Salaries of clerks	3,930,579	1.6	2,237,723	1.6	75.6
Printing and stationery	838,562	0.3	496,381	0.3	68.9
Miscellaneous office expenses	935,227	0.4	666,997	0.5	40.2
Stores expenses	616,769	0.2	229,237	0.2	169.1
Stable expenses	1,022,393	0.4	1,430,000	1.0	[4] 28.5
Advertising and attractions	1,730,851	0.7	1,122,816	0.8	54.2
Miscellaneous general expenses	3,173,979	1.3	2,061,821	1.4	53.9
Damages and legal expenses incident thereto	18,176,305	7.2	9,395,545	6.6	93.5
Other legal expenses	1,325,550	0.5	1,017,854	0.7	30.2
Rent of land and buildings	970,424	0.4	608,344	0.4	59.5
Rent of tracks and terminals	2,768,786	1.1	1,471,293	1.0	88.2
Insurance	3,137,071	1.2	2,080,875	1.5	50.8
Wages, supplies, and expenses incident to electric service, not elsewhere included	6,168,873	2.5	2,188,753	1.5	181.8

[1] Exclusive of 6 companies which failed to furnish this information.
[2] Exclusive of 18 companies which failed to furnish this information.
[3] Not reported separately.
[4] Decrease.

Although the relative importance of all of the various items of expenses incident to the operation of power plants, with the exception of the cost of purchased power, either decreased or remained stationary, the increase in that item was so great that the power-plant expense as a whole formed a larger percentage of the total expenses in 1907 than in 1902.

In the census report of 1902 a table was presented showing the per cent distribution of the total operating expenses among the several accounts for 17 selected surface railways in the largest cities. Owing to changes and consolidations, comparable figures for these companies could not be obtained for 1907, but a table has been prepared and presented here, which shows the per cent distribution of operating expenses in 1907 and 1902 for 13 selected surface railways in the largest cities, most of which were represented in the corresponding table in 1902. The 13 companies are as follows:

Boston and Northern Street Railway Company.
Brooklyn Rapid Transit system (8 separate operating reports in 1907).
Chicago City Railway Company.
Chicago Union Traction Company.
Cincinnati Traction Company.
Cleveland Electric Railway Company.
Crosstown Street Railway Company of Buffalo.
International Railway Company (Buffalo).
Philadelphia Rapid Transit Company.
Pittsburg Railways Company.
United Railroads of San Francisco.
United Railways and Electric Company of Baltimore.
United Railways Company of St. Louis.

TABLE 118.—*Per cent distribution, by accounts, of operating expenses of 13 selected railway companies in the largest cities: 1907 and 1902.*

ACCOUNT.	PER CENT OF TOTAL OPERATING EXPENSES.	
	1907	1902
Aggregate for 13 selected companies	100.0	100.0
Maintenance of ways and structures, total	10.1	7.7
Track and roadway	7.5	3.6
Electric, cable, etc., lines	1.8	3.5
Buildings and fixtures	0.8	0.6
Maintenance of equipment, total	13.5	13.4
Steam plant	1.1	1.1
Electric, cable, etc., plant	0.5	0.9
Cars	6.1	6.2
Electric, cable, etc., equipment of cars	4.4	4.0
Miscellaneous	0.4	0.4
Miscellaneous shop expenses	1.1	0.8
Operation of power plant, total	14.6	14.0
Power-plant wages	2.6	3.1
Fuel for power	7.1	8.2
Water for power	0.4	0.4
Lubricants and waste for power plant	0.2	0.3
Miscellaneous supplies and expenses of power plant	0.4	0.3
Power purchased	3.8	1.8
Operation of cars, total	44.7	46.7
Superintendence of transportation	1.4	1.4
Wages of conductors	17.8	19.4
Wages of motormen	17.1	18.9
Wages of other car-service employees	2.0	1.7
Wages of car-house employees	2.5	2.2
Car-service supplies	0.7	0.8
Miscellaneous car-service expenses	1.7	1.1
Hired equipment	0.1	(1)
Cleaning and sanding track	1.0	0.9
Removal of snow and ice	0.3	0.5
General, total	17.2	18.1
Salaries of general officers	1.1	1.2
Salaries of clerks	1.2	1.4
Printing and stationery	0.3	0.2
Miscellaneous office expenses	0.3	0.5
Stores expenses	0.3	0.2
Stable expenses	0.2	0.4
Advertising and attractions	0.1	0.5
Miscellaneous general expenses	1.2	1.6
Damages and legal expenses incident thereto	0.4	0.1
Other legal expenses	0.7	0.8
Rent of land and buildings	0.3	0.1
Rent of track and terminals	0.6	0.6
Insurance	1.4	1.6

[1] Not reported separately.

The total operating expenses of these 13 selected companies represented 26 per cent of the total reported for all companies in the United States in 1907 as compared with 30.8 per cent in 1902. In spite of this decrease in relative importance, the total expenses of these companies increased from $43,850,067 in 1902 to $65,447,071 in 1907, a total increase of $21,597,004, or 49.3 per cent.

While the totals upon which the percentages were based are fairly representative of operating conditions in large urban centers, there are not so many striking differences when compared with the distribution for all companies as might be expected. Thus, as in the case of the country as a whole, each of the main accounts of operating expenses, except those included under the headings "Operation of cars" and "General" showed an increased proportion of the total in 1907 as compared with 1902. It will be noted, however, that proportionately the expenses for maintenance of ways and structures of the 13 selected companies were slightly less at both censuses than for all companies, and the expenses for operation of power plant considerably less, while expenses of maintenance of equipment and of operation of cars were relatively greater for the selected companies. In the larger cities the track, buildings, and appurtenances are usually of so substantial a character that the maintenance cost may be comparatively low, and the power plants are equipped with large units and the best labor-saving devices, productive of the highest economies of operation. On the other hand, the maintenance of equipment and the cost of car operation are proportionately greater in centers of heavy traffic. None of the 13 selected companies, however, was engaged in the regular light and power business.

Operating expenses of companies, classified according to income from railway operations.—Table 119 shows, for both censuses, the totals for the six divisions of operating expenses of companies, classified according to income from railway operations, with the percentages of increase, and Table 120 shows the per cent distribution of the totals.

As with the rates of increase in operating earnings, the rates of increase in total operating expenses and in each of the five main divisions are much greater for the larger companies, those belonging to Classes A and B, than for the other classes, or for all companies combined. Excluding from consideration the amounts reported as expended for wages and other expenses incident to electric-light service, which are more or less unstable quantities, the highest rate of gain, 134.3 per cent, appears for the expenses of maintenance of ways and structures for Class A, while the least change during the five years interval between the censuses is shown in the amount reported as expended for operation of cars for the small companies, Class E.

The largest companies, Class A, reported a larger proportion of the total operating expenses in 1907 than in 1902. The line below which the different classes of companies reported a smaller proportion of the totals for the several expense accounts in 1907 than in 1902 falls between Classes B and C; companies with an income of less than $500,000 showing a more or less general falling off in their proportions of the totals in 1907.

The percentages in Table 120 show some variations in the relative importance of the different classes of expenses for the different classes of companies. The per cent ratio of the cost of maintaining ways and structures to total operating expenses was highest for companies of Class B; the ratio for cost of maintenance of equipment was highest in Class A; for cost of operation of power plant, in Class E; for cost of car operation, in Class A; for general expenses, in companies of Class C; and for the expenses incident to electric-light service, in Class D. In 1902 the highest

percentages for cost of maintenance of equipment, operation of power plant, and operation of cars, were shown for the same classes as in 1907; but the cost of maintenance of ways and structures in 1902 was most important relatively for the next lower class, C; general expenses, for the next lower class, D; and the expenses incident to electric-light service, for the next lower class, E.

TABLE 119.—OPERATING EXPENSES, BY ACCOUNTS, OF COMPANIES, CLASSIFIED ACCORDING TO INCOME FROM RAILWAY OPERATIONS: 1907 AND 1902.

ACCOUNT.	Census.	Total, all companies.	CLASSIFICATION GROUP. $1,000,000 and over. (A)	$500,000 but less than $1,000,000. (B)	$250,000 but less than $500,000. (C)	$100,000 but less than $250,000. (D)	Less than $100,000. (E)	Per cent of total. A	B	C	D	E
Number of companies	1907	[1] 930	76	50	80	182	551	8.1	5.3	8.5	19.4	58.7
	1902	[2] 790	44	28	53	112	562	5.5	3.5	6.6	14.0	70.3
Per cent of increase		17.5	72.7	78.6	50.9	62.5	[3] 2.0					
Operating expenses, total	1907	$251,309,252	$173,358,511	$22,278,981	$19,065,080	$20,341,738	$16,264,942	69.0	8.9	7.6	8.1	6.5
	1902	$142,312,597	$91,842,001	$11,848,332	$11,506,292	$12,506,780	$14,609,186	64.5	8.3	8.1	8.8	10.3
Per cent of increase		76.6	88.8	88.0	65.7	62.6	11.3					
Maintenance of ways and structures	1907	$25,675,327	$17,531,395	$2,445,614	$2,046,781	$2,063,864	$1,587,673	68.3	9.5	8.0	8.0	6.2
	1902	$12,118,296	$7,480,909	$1,117,591	$1,133,903	$1,067,932	$1,317,961	61.7	9.2	9.4	8.8	10.9
Per cent of increase		111.0	134.3	118.8	80.5	93.3	20.5					
Maintenance of equipment	1907	$31,485,810	$22,830,833	$2,650,703	$2,146,768	$2,226,310	$1,625,196	72.5	8.4	6.8	7.1	5.2
	1902	$16,676,532	$11,265,241	$1,269,965	$1,388,556	$1,287,108	$1,465,662	67.6	7.6	8.3	7.7	8.8
Per cent of increase		88.8	102.7	109.2	54.6	73.0	10.9					
Operation of power plant	1907	$43,972,669	$27,191,722	$4,237,264	$3,737,324	$4,437,294	$4,369,075	61.8	9.6	8.5	10.1	9.9
	1902	$23,062,328	$13,093,641	$1,874,566	$1,878,528	$2,488,915	$3,726,678	56.8	8.1	8.1	10.8	16.2
Per cent of increase		90.7	107.7	126.0	98.9	78.3	17.2					
Operation of cars	1907	$100,542,108	$73,216,176	$8,652,800	$6,775,982	$6,771,627	$5,125,523	72.8	8.6	6.7	6.7	5.1
	1902	$62,454,670	$42,664,070	$5,199,063	$4,729,221	$4,867,128	$4,995,197	68.3	8.3	7.6	7.8	8.0
Per cent of increase		61.0	71.6	66.4	43.3	39.1	2.6					
General	1907	$43,464,465	$29,803,732	$3,833,807	$3,510,622	$3,451,895	$2,864,409	68.6	8.8	8.1	7.9	6.6
	1902	$25,812,000	$16,740,420	$2,154,244	$2,030,399	$2,337,347	$2,549,599	64.9	8.3	7.9	9.1	9.9
Per cent of increase		68.4	78.0	78.0	72.9	47.7	12.3					
Wages, supplies, and expenses incident to electric service not elsewhere included	1907	$6,168,873	$2,784,053	$452,803	$847,603	$1,390,748	$693,066	45.1	7.3	13.7	22.5	11.2
	1902	$2,188,753	$597,720	$232,903	$345,685	$458,356	$554,089	27.3	10.6	15.8	20.9	25.3
Per cent of increase		181.8	365.9	94.4	145.2	203.4	25.1					

[1] Exclusive of 6 companies which failed to furnish this information.
[2] Exclusive of 18 companies which failed to furnish this information.
[3] Decrease.

TABLE 120.—*Per cent distribution, by accounts, of operating expenses of companies, classified according to income from railway operations: 1907 and 1902.*

ACCOUNT.	Census.	PER CENT OF OPERATING EXPENSES. Total.	A	B	C	D	E
Operating expenses	1907	100.0	100.0	100.0	100.0	100.0	100.0
	1902	100.0	100.0	100.0	100.0	100.0	100.0
Maintenance of ways and structures	1907	10.2	10.1	11.0	10.7	10.1	9.8
	1902	8.5	8.1	9.4	9.9	8.5	9.0
Maintenance of equipment	1907	12.5	13.2	11.9	11.3	10.9	10.0
	1902	11.7	12.3	10.7	12.1	10.3	10.0
Operation of power plant	1907	17.5	15.7	19.0	19.6	21.8	26.9
	1902	16.2	14.3	15.8	16.3	19.9	25.5
Operation of cars	1907	40.0	42.2	38.8	35.5	33.3	31.5
	1902	43.9	46.5	43.9	41.1	38.9	34.2
General	1907	17.3	17.2	17.2	18.4	17.0	17.6
	1902	18.1	18.2	18.2	17.6	18.7	17.5
Wages, supplies, and expenses incident to electric service not elsewhere included	1907	2.5	1.6	2.0	4.4	6.8	4.3
	1902	1.5	0.7	2.0	3.0	3.7	3.8

For the two important items of expense included under the heads "Operation of power plant" and "Operation of cars," and for these two only, the percentages at both censuses were uniformly progressive from class to class. For the former, the gradation is from a low proportion of the total, 15.7 per cent for the companies belonging to Class A, to a high proportion of the total, 26.9 per cent for Class E; while the expense of operation of cars increases progressively in relative importance from Class E, where it represented only 31.5 per cent of the total, to Class A, for which it constituted 42.2 per cent. That is to say, in general, as the size of the company increases, the proportionate cost of power-plant operation decreases, and the proportionate cost of operation of cars increases. This is a further confirmation of the statement made in connection with similar statistics for the 13 selected companies in the largest cities, namely, that the larger cities and companies have attained greater economies in power costs and that the cost of car operation is proportionately higher for the larger companies.

Operating expenses of companies with and without commercial lighting and of part-time companies.—A grouping of the operating expenses of companies "without commercial lighting," "with commercial lighting," and "part-time," respectively, is given in Table 121.

TABLE 121.—OPERATING EXPENSES, BY ACCOUNTS, OF COMPANIES WITH AND WITHOUT COMMERCIAL LIGHTING, AND OF PART-TIME COMPANIES: 1907 AND 1902.

ACCOUNT.	TOTAL, ALL COMPANIES.		CLASSIFICATION GROUP.									
			Without commercial lighting.[1]		With commercial lighting.		Part-time.		Per cent of increase.			
	1907	1902	1907	1902	1907	1902	1907	1902	Total.	Without lighting.	With lighting.	Part-time.
Number of companies	[2] 939	[3] 799	709	630	[4] 175	112	55	57	17.5	12.5	56.3	[5] 3.5
Operating expenses, total	$251,309,252	$142,312,597	$208,847,845	$128,038,482	$41,566,582	$12,834,941	$894,825	$1,439,174	76.6	63.1	223.9	[5] 37.8
Maintenance of ways and structures	25,675,327	12,118,296	21,727,402	10,975,702	3,882,880	1,035,566	64,985	107,028	111.9	98.0	275.0	[5] 39.3
Maintenance of equipment	31,485,810	16,676,532	27,254,606	15,417,574	4,157,605	1,116,583	73,599	143,375	88.8	76.8	272.7	[5] 48.7
Operation of power plant	43,972,669	23,062,328	35,983,397	20,248,515	7,708,884	2,487,822	280,388	325,991	90.7	77.7	209.9	[5] 14.0
Operation of cars	100,542,108	62,454,679	87,135,067	57,853,756	13,108,276	4,066,636	298,765	534,287	61.0	50.6	222.3	[5] 44.1
General	43,464,465	25,812,009	36,634,776	23,485,153	6,053,922	2,018,893	175,767	307,963	68.4	56.0	229.6	[5] 42.9
Wages, supplies, and expenses incident to electric service not elsewhere included	6,168,873	2,188,753	112,537	57,782	6,055,015	2,110,441	1,321	20,530	181.8	94.8	186.9	[5] 93.6

[1] Includes all full-time operating companies not engaged in regular light and power business, without regard to kind of power used.
[2] Exclusive of 6 companies which failed to furnish this information.
[3] Exclusive of 18 companies which failed to furnish this information.
[4] Exclusive of 2 part-time companies.
[5] Decrease.

The large percentages of increase shown for the operating expenses of companies that had electric-light departments confirm the statistics given in other tables in showing the rapid development of this branch of the electric-railway industry. In 1902 the operating expenses of companies without lighting plants were nearly nine times as great as those of the other companies, but in 1907 they were only about five times as great.

The rate of increase for each of the main accounts of operating expenses is about three to four times as great for companies with lighting plants as for those without, but as companies with lighting plants contributed considerably less than one-fifth of the totals for all companies, the rate of increase for companies without commercial lighting is not very much less than that for the United States as a whole. The uniform decrease in the amounts reported for the part-time companies is in keeping with the decrease reported in the operating earnings of such companies.

The percentage ratios of the operating earnings and operating expenses of each of the three groups of companies to the respective totals for all companies at the two censuses are shown in the following statement:

CLASSIFICATION GROUP.	PER CENT DISTRIBUTION OF—			
	Operating earnings.		Operating expenses.	
	1907	1902	1907	1902
Total, all companies	100.0	100.0	100.0	100.0
Without commercial lighting	83.2	90.1	83.1	90.0
With commercial lighting	16.5	8.9	16.5	9.0
Part-time companies	0.3	1.0	0.4	1.0

The close correspondence in the proportion of operating earnings and of operating expenses, respectively, reported by the different groups of companies at the two censuses is striking.

A clearer understanding of the relative importance of the different kinds of operating expenses for the different groups of companies is afforded by Table 122, which distributes the expenses by percentage, instead of by absolute amounts.

TABLE 122.—PER CENT DISTRIBUTION, BY ACCOUNTS, OF OPERATING EXPENSES OF COMPANIES WITH AND WITHOUT COMMERCIAL LIGHTING, AND OF PART-TIME COMPANIES: 1907 AND 1902.

ACCOUNT.	PER CENT OF OPERATING EXPENSES.							
	Total, all companies.		Without commercial lighting.		With commercial lighting.		Part-time.	
	1907	1902	1907	1902	1907	1902	1907	1902
Operating expenses	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Maintenance of ways and structures	10.2	8.5	10.4	8.6	9.3	8.1	7.3	7.4
Maintenance of equipment	12.5	11.7	13.0	12.0	10.0	8.7	8.2	10.0
Operation of power plant	17.5	16.2	17.2	15.8	18.5	19.4	31.3	22.7
Operation of cars	40.0	43.9	41.7	45.2	31.5	31.7	33.4	37.1
General	17.3	18.1	17.5	18.3	16.0	15.7	19.6	21.4
Wages, supplies, and expenses incident to electric service, not elsewhere included	2.5	1.5	0.1	(1)	14.6	16.4	0.1	1.4

[1] Less than one-tenth of 1 per cent.

The cost of generating power is, relatively, a somewhat more important item of expense for companies that sell a large part of their output of current for commercial light and power purposes than for companies engaged primarily in the operation of railways. The proportion of operating expenses reported under this head by companies with commercial lighting was not, however, quite so high in 1907 (18.5 per cent) as in 1902, when it approached one-fifth of the total expenses. On the other hand, the expense of car operation is much greater, relatively, for companies without commercial lighting than for those with commercial lighting, the percentage of the total operating expenses assignable to this account ranging 10.2 and 13.5 per cent higher for the former class of companies in 1907 and 1902, respectively, than for the companies with commercial lighting.

The decrease shown for companies with commercial lighting in the relative importance of wages and other expenses incident to electric-light service, is without significance, as there was a lack of uniformity among the companies reporting to the Census Bureau in regard to the distribution of their expenses between the railway and the light departments.

Operating expenses of companies, classified according to kind of system and character of service.—Some interest attaches to a presentation of the operating expenses and their percentage distribution for companies, classified according to kind of system and character of service.

TABLE 123.—OPERATING EXPENSES, BY ACCOUNTS, OF COMPANIES, CLASSIFIED ACCORDING TO KIND OF SYSTEM AND CHARACTER OF SERVICE: 1907.

ACCOUNT.	Total, all companies.	CLASSIFICATION GROUP.				
		Kind of system.		Character of service.		
		Electric elevated and subway railways.[1]	Electric surface railways.[2]	Selected interurban lines.	Selected small urban roads.	All other railways.
Number of companies	[3] 939	6	933	50	100	789
Operating expenses, total	$251,300,252	$15,129,025	$236,180,227	$16,900,292	$1,135,442	$233,273,518
Maintenance of ways and structures	25,675,327	1,525,863	24,149,464	1,888,959	124,097	23,662,271
Maintenance of equipment	31,485,810	2,274,437	29,211,373	1,947,243	116,319	29,422,248
Operation of power plant	43,972,669	3,310,236	40,662,433	3,834,850	298,345	39,839,474
Operation of cars	100,542,108	5,818,638	94,723,470	5,821,824	431,017	94,289,267
General	43,464,465	2,199,851	41,264,614	3,053,248	165,664	40,245,553
Wages, supplies, and expenses incident to electric service, not elsewhere included	6,168,873	.....	6,168,873	354,168	.....	5,814,705

[1] Exclusive of the mixed elevated, subway, and surface systems in Boston, Mass., and Philadelphia, Pa.
[2] Includes the statistics for the few railways not operated by electricity.
[3] Exclusive of 6 companies which failed to furnish this information.

TABLE 124.—*Per cent distribution, by accounts, of operating expenses of companies, classified according to kind of system and character of service: 1907.*

ACCOUNT.	PER CENT OF OPERATING EXPENSES.					
	Total, all companies.	Kind of system.		Character of service.		
		Electric elevated and subway railways.	Electric surface railways.	Selected interurban lines.	Selected small urban roads.	All other railways.
Operating expenses	100.0	100.0	100.0	100.0	100.0	100.0
Maintenance of ways and structures	10.2	10.1	10.2	11.2	10.9	10.1
Maintenance of equipment	12.5	15.0	12.4	11.5	10.2	12.6
Operation of power plant	17.5	21.9	17.2	22.7	26.3	17.1
Operation of cars	40.0	38.5	40.1	34.4	38.0	40.4
General	17.3	14.5	17.5	18.1	14.6	17.3
Wages, supplies, and expenses incident to electric service, not elsewhere included	2.5	.....	2.6	2.1	.....	2.5

The total operating expenses are distributed among the several classes of companies in about the same proportion as the operating earnings, and the statistics on this point do not call for special comment.

Table 124 shows that the relative importance of each expense account is practically the same for each group of companies as for all companies combined, there being variations in this respect in only one or two cases.

The operating conditions of elevated and subway railways, interurban lines, and small urban roads are very dissimilar, and the per cent distribution of the operating expenses by accounts indicates several points of difference. The cost of keeping the car equipment in operating condition was proportionately greater for the elevated railways and subways than for the selected interurban lines, as was also the cost of operating cars. The costs of operation of the power plant and of the maintenance of ways and structures were proportionately greater for the selected inter-

urban lines than for the elevated and subway systems. The cost of producing power was much higher in proportion for the selected small urban roads than for either the elevated and subway or the selected interurban lines.

Operating expenses, by states.—A detailed statement of the operating expenses reported by the street and electric railways of the different states and territories and geographic divisions for 1907 and 1902, is presented in Table 125, which shows the total amounts reported for each of the 39 accounts included in the standard classification of operating expense accounts.

TABLE 125.—OPERATING EXPENSES, BY ACCOUNTS, BY

	STATE OR TERRITORY.	Census.	Number of companies.	Aggregate.	MAINTENANCE.							
					Ways and structures.				Equipment.			
					Total.	Track and roadway.	Electric, cable, etc., lines.	Buildings and fixtures.	Total.	Steam plant.	Electric, cable, etc., plant.	Cars.
1	United States	1907	[1] 939	$251,309,252	$25,075,327	$18,978,615	$4,777,697	$1,919,115	$31,485,810	$2,652,364	$1,181,653	$13,814,290
2		1902	[2] 799	142,312,597	12,118,296	8,158,031	2,959,182	1,000,483	16,676,532	1,353,789	826,604	7,659,428
3	North Atlantic division	1907	365	116,309,563	11,974,123	8,716,231	2,241,406	1,016,486	15,170,689	1,337,166	495,759	6,326,087
4		1902	356	76,504,089	6,559,416	4,446,018	1,458,104	656,294	9,012,974	698,439	220,315	4,135,526
5	Maine	1907	17	1,480,544	142,204	96,067	30,100	16,037	176,594	17,869	13,798	72,169
6		1902	19	1,127,660	144,860	96,232	21,287	27,341	157,745	6,203	7,263	77,336
7	New Hampshire	1907	16	895,862	106,845	85,277	14,592	6,976	91,367	699	285	43,372
8		1902	7	478,849	35,199	24,990	7,798	2,411	48,540	842	188	21,380
9	Vermont	1907	10	313,845	46,431	38,404	4,285	3,742	37,516	1,869	1,211	12,418
10		1902	9	201,179	26,183	20,100	3,254	2,829	20,705	304	806	7,916
11	Massachusetts	1907	62	21,179,642	2,095,028	1,453,605	455,307	186,116	2,685,026	349,603	59,675	1,082,519
12		1902	74	10,403,607	1,513,832	991,072	382,098	139,762	1,895,793	170,050	43,656	964,128
13	Rhode Island	1907	5	2,744,106	333,590	212,380	60,911	60,299	372,276	19,641	5,184	150,388
14		1902	7	1,892,477	282,185	220,484	50,907	10,794	214,981	27,501	11,820	93,842
15	Connecticut	1907	8	4,857,763	739,090	551,330	145,653	42,107	526,007	31,946	16,900	253,082
16		1902	21	2,773,608	328,495	239,290	72,957	16,248	289,765	10,798	5,933	125,372
17	New York	1907	101	50,928,855	4,799,075	3,437,146	824,297	537,632	7,068,741	588,160	265,835	2,761,125
18		1902	96	33,077,724	2,404,843	1,461,861	592,247	350,735	3,771,757	179,660	75,690	1,681,432
19	New Jersey	1907	24	7,905,138	482,188	327,904	113,784	40,500	1,229,375	87,476	33,238	548,441
20		1902	25	4,324,112	270,285	184,007	63,588	22,690	576,440	31,694	22,525	236,151
21	Pennsylvania	1907	122	26,003,748	3,229,072	2,514,118	586,477	129,077	2,983,697	239,903	99,633	1,402,573
22		1902	98	15,624,813	1,553,534	1,206,082	263,968	83,484	2,037,248	205,447	58,374	927,969
23	South Atlantic division	1907	100	16,280,804	1,487,530	1,099,155	319,450	77,916	1,631,473	164,580	67,505	763,369
24		1902	75	8,186,047	468,682	293,619	132,679	42,384	849,231	57,255	30,401	376,031
25	Delaware	1907	4	516,253	42,468	31,517	9,681	1,270	61,571	7,804	5,745	22,594
26		1902	3	360,590	11,657	7,036	4,317	304	35,080	2,196	3,175	9,994
27	Maryland and District of Columbia.	1907	10	5,943,863	458,047	348,814	88,801	20,432	712,701	32,579	23,709	344,869
28		1902	18	3,870,538	189,394	120,607	54,501	14,226	475,150	25,136	9,659	215,212
29	Virginia	1907	22	3,261,570	324,626	224,960	77,957	21,709	205,926	24,744	6,544	153,664
30		1902	16	1,009,356	94,060	57,431	25,036	11,593	98,804	9,666	10,280	42,950
31	West Virginia	1907	15	1,540,395	269,579	217,198	43,614	8,767	129,769	19,194	10,826	55,725
32		1902	8	652,862	48,946	35,151	10,988	2,807	48,669	3,889	823	24,417
33	North Carolina	1907	11	743,357	48,099	33,630	9,382	5,087	56,874	8,237	2,614	24,661
34		1902	7	322,344	29,097	16,805	9,524	2,768	28,215	3,219	1,772	14,084
35	South Carolina	1907	7	762,853	83,863	43,209	27,911	12,653	98,407	15,231	3,340	37,194
36		1902	7	398,662	23,956	14,080	4,894	4,973	35,435	3,302	1,626	16,083
37	Georgia	1907	12	2,555,713	210,660	154,350	50,250	6,060	208,733	43,862	12,148	79,480
38		1902	10	1,232,320	50,864	26,720	19,730	4,408	101,608	3,474	2,370	42,696
39	Florida	1907	10	956,860	50,188	36,387	11,863	1,938	97,492	12,869	2,579	45,152
40		1902	6	339,375	20,708	15,714	3,689	1,305	26,270	6,373	696	10,595
41	North Central division	1907	293	78,374,932	7,624,830	5,763,375	1,330,515	530,940	9,220,746	797,119	374,862	4,136,498
42		1902	235	41,271,462	3,308,839	2,221,279	879,506	208,054	4,996,506	434,926	414,847	2,271,608
43	Ohio	1907	73	18,479,609	2,045,308	1,606,348	334,194	104,766	2,486,726	319,275	139,263	1,054,135
44		1902	62	9,132,480	787,224	572,541	178,817	35,866	863,348	77,249	31,120	372,540
45	Indiana	1907	33	6,308,152	628,218	431,546	115,544	81,128	763,452	63,581	26,541	335,117
46		1902	26	2,219,791	194,751	133,433	49,938	11,380	305,976	38,552	22,490	102,543
47	Illinois	1907	70	25,597,996	2,472,578	1,914,750	378,637	179,191	2,807,087	218,388	100,869	1,370,727
48		1902	48	14,103,211	1,052,973	697,579	274,732	80,662	1,999,348	148,157	278,072	1,021,645
49	Michigan	1907	24	6,549,919	676,074	503,762	118,994	53,318	770,541	41,944	22,391	304,111
50		1902	24	3,655,328	324,077	224,484	75,081	24,512	424,800	24,409	31,425	165,231
51	Wisconsin	1907	20	3,235,068	257,200	177,590	59,397	20,213	303,044	21,138	10,854	144,095
52		1902	17	1,995,024	137,461	93,234	34,692	9,535	165,173	35,111	11,947	60,991
53	Minnesota	1907	5	3,524,346	224,084	155,156	57,109	11,819	321,462	14,377	15,077	139,812
54		1902	5	1,719,687	92,707	73,745	10,268	8,694	221,043	5,932	3,575	81,492
55	Iowa	1907	24	2,826,959	217,272	161,921	44,460	10,891	240,922	26,498	13,079	100,281
56		1902	22	1,460,993	159,550	121,850	29,989	7,720	156,305	16,421	8,137	62,785
57	Missouri	1907	14	9,680,226	894,874	663,469	179,737	51,668	1,326,580	91,132	36,830	589,651
58		1902	16	6,071,971	413,488	205,575	180,607	27,306	767,517	82,497	17,121	357,791
59	North and South Dakota [3]	1907	5	72,412	4,909	3,981	597	331	5,102	77	34	3,368
60	Nebraska	1907	8	1,325,038	127,931	85,376	28,805	13,750	116,898	7,804	1,877	59,233
61		1902	4	655,729	121,848	81,432	39,274	1,142	63,765	4,760	8,041	26,685
62	Kansas	1907	17	775,207	76,382	59,476	13,041	3,865	78,932	1,905	8,047	35,968
63		1902	11	257,248	24,751	17,406	6,108	1,237	20,231	1,838	2,919	19,905

[1] Exclusive of 6 companies which failed to furnish this information.

[2] Exclusive of 18 companies which failed to furnish this information.

STATES AND GEOGRAPHIC DIVISIONS: 1907 AND 1902.

MAINTENANCE—continued.			TRANSPORTATION.										
Equipment—Continued.			Operation of power plant.							Operation of cars.			
Electric, cable, etc., equipment of cars.	Miscellaneous.	Miscellaneous shop expenses.	Total.	Wages.	Fuel.	Water.	Lubricants and waste.	Miscellaneous supplies and expenses.	Power purchased.	Total.	Superintendence of transportation.	Wages of conductors.	
$10,753,321 5,325,125	$886,724 608,875	$2,107,452 842,711	$43,972,669 23,062,328	$7,876,355 4,599,487	$21,058,259 12,827,322	$1,091,283 634,026	$675,885 500,967	$928,629 620,008	$12,342,258 3,871,518	$100,542,108 62,454,679	$3,545,418 2,598,935	$37,814,621 24,070,921	1 2
5,430,310 3,022,680	440,058 483,351	1,141,309 446,663	19,757,037 11,762,002	3,622,301 2,040,511	9,735,743 6,460,338	634,373 421,054	301,037 220,148	475,970 363,421	4,988,513 2,238,530	48,482,356 34,577,483	1,799,718 1,793,320	17,866,510 12,996,714	3 4
58,797 56,420	4,431 1,960	9,530 8,554	307,076 200,531	66,489 52,744	136,657 84,798	45,530 27,501	4,164 4,347	6,468 6,278	47,768 24,863	573,993 377,503	17,947 18,059	188,496 141,941	5 6
37,735 18,572	1,980 1,308	7,296 6,250	213,171 134,413	14,280 21,144	22,028 38,348	1,003 1,349	737 1,611	3,384 1,584	171,739 70,377	277,558 162,911	16,252 7,549	101,295 67,679	7 8
15,273 9,312	4,546 1,579	2,199 728	67,087 41,449	10,903 3,989	10,889 10,005	5,544	635 711	5,792 219	33,324 26,525	105,069 90,041	6,961 5,210	35,765 33,083	9 10
1,051,414 672,204	68,281 28,057	73,534 17,698	3,680,680 2,573,845	589,430 409,865	2,198,061 1,522,155	114,550 63,347	70,128 47,979	97,272 43,435	620,230 427,064	9,033,900 7,444,107	322,901 640,791	3,113,423 2,660,947	11 12
155,902 58,220	11,348 4,655	29,813 18,943	451,232 296,212	58,934 48,397	274,272 170,237	18,999 15,203	7,520 4,165	13,484 6,021	78,023 52,189	1,148,931 792,790	18,548 31,513	426,932 304,091	13 14
177,500 114,756	10,600 5,754	36,069 21,152	763,998 438,707	132,969 102,549	364,654 260,027	12,038 8,000	15,617 9,855	6,226 8,211	232,494 50,065	1,707,455 1,114,410	71,062 30,914	647,042 442,579	15 16
2,526,240 1,147,418	245,612 381,005	681,769 306,612	8,556,144 5,266,237	1,694,208 659,583	3,946,587 3,012,882	366,545 259,145	107,342 85,333	217,962 203,583	2,223,440 985,711	21,289,266 15,420,303	844,654 721,152	7,634,066 5,528,938	17 18
355,160 298,141	34,823 19,403	170,237 28,406	1,635,249 753,759	287,697 112,188	726,450 301,284	31,755 17,312	20,357 14,309	49,511 17,218	519,479 291,448	3,107,157 1,907,598	153,335 56,302	1,172,483 745,342	19 20
1,052,289 707,628	58,437 39,570	130,862 38,260	4,074,300 2,056,849	767,322 579,052	2,056,145 1,060,602	38,409 29,197	74,537 60,838	75,871 16,872	1,062,016 310,288	11,239,027 7,267,220	348,058 281,830	4,546,408 3,071,514	21 22
436,310 331,037	96,521 16,599	103,188 37,908	3,059,854 1,546,103	572,242 312,996	1,619,051 907,092	45,284 33,001	52,959 36,693	94,283 17,014	676,035 239,307	5,773,400 3,206,794	218,180 110,322	2,173,518 1,277,248	23 24
11,534 13,916	8,522 1,319	5,312 4,480	130,122 84,804	25,385 15,384	94,807 61,600	1,004 1,527	4,634 3,297	2,495 310	1,797 2,686	197,174 134,871	7,289 1,080	87,069 60,080	25 26
105,904 204,887	51,319 1,405	64,201 18,851	1,155,016 744,439	220,067 130,204	693,996 411,800	24,871 12,052	16,505 10,037	59,857 5,728	133,720 174,618	2,590,623 1,756,936	92,591 47,395	1,002,673 726,858	27 28
65,498 32,071	3,077 1,250	12,399 1,687	604,360 243,083	75,896 49,806	181,082 144,727	9,780 6,721	10,996 7,180	7,134 3,473	319,472 31,176	1,003,332 319,064	39,451 17,734	340,959 114,522	29 30
35,835 15,783	4,185 2,279	4,004 1,478	298,751 97,029	78,286 36,655	147,096 47,276	4,430 2,572	8,077 3,055	12,102 1,439	48,760 6,032	544,768 278,868	11,426 6,582	212,580 110,890	31 32
16,682 7,939	3,455 701	1,225 500	170,665 78,996	33,328 16,959	118,850 48,399	3,217 1,588	4,406 2,964	1,557 700	9,307 8,386	173,891 79,180	10,971 4,288	67,497 29,088	33 34
20,732 7,351	21,062 6,640	848 433	185,399 55,636	35,901 7,619	113,634 32,019	403 280	2,900 1,027	6,108 420	26,453 14,262	214,442 135,242	16,463 10,906	66,866 37,931	35 36
58,603 40,386	3,528 2,805	11,112 9,877	371,724 176,835	64,042 41,571	177,339 113,619	460 8,086	2,429 7,628	907 3,784	126,547 2,147	783,970 400,180	22,325 9,451	207,288 158,480	37 38
31,522 7,804	1,373 200	3,997 602	143,817 65,281	33,337 14,798	92,247 47,652	1,119 175	3,012 1,505	4,123 1,151	9,979	265,200 102,463	17,664 6,286	98,586 36,399	39 40
3,018,991 1,454,388	244,332 124,460	648,944 296,277	14,577,556 7,079,129	2,078,029 1,655,591	7,301,521 4,160,935	344,438 148,512	222,292 166,071	229,765 168,962	3,801,511 779,058	31,028,537 17,556,851	974,553 443,876	11,879,535 7,034,268	41 42
777,930 294,688	71,255 19,491	133,868 68,260	3,411,273 1,616,321	804,329 413,639	1,998,715 963,623	44,976 33,839	63,028 46,376	85,276 31,463	414,949 127,381	7,094,207 4,211,137	267,641 113,153	2,657,922 1,663,867	43 44
273,612 115,675	14,544 2,234	50,057 24,482	1,291,281 363,879	308,212 106,523	772,771 223,900	14,188 3,312	24,932 12,100	25,423 7,441	145,755 10,603	2,081,451 847,307	75,555 27,146	713,028 332,116	45 46
870,002 388,439	69,861 59,430	177,240 103,605	4,744,442 2,353,311	696,735 476,336	1,876,778 1,306,304	66,102 49,239	48,066 37,869	49,505 80,584	2,007,256 402,979	10,502,007 5,825,552	202,484 89,704	4,247,358 2,444,620	47 48
289,530 168,807	38,231 13,027	74,334 21,901	1,229,521 660,257	217,039 175,669	625,007 393,744	1,136 1,527	16,233 20,472	14,188 14,073	355,918 54,772	2,737,671 1,576,731	88,219 56,533	941,881 592,063	49 50
107,539 46,120	5,154 8,394	14,264 2,610	529,296 390,939	78,710 72,092	381,353 261,830	9,465 2,527	8,056 7,290	11,562 14,884	39,550 32,316	1,171,969 716,787	51,295 34,856	436,703 269,268	51 52
103,531 125,793	7,188 1,850	41,477 2,401	598,449 263,689	93,176 48,538	319,056 69,792	152,234 2,023	6,107 2,541	7,771 7,005	20,105 133,790	1,597,475 784,491	95,701 21,488	575,301 299,127	53 54
69,385 47,020	10,972 8,581	20,707 13,361	601,440 293,226	116,219 74,084	270,190 187,345	4,655 4,432	11,585 8,362	9,184 5,436	189,607 13,567	1,025,089 513,727	32,654 13,192	359,648 177,629	55 56
408,655 240,660	23,730 10,753	116,582 58,695	1,759,902 970,997	294,982 242,381	856,062 643,115	46,367 47,332	34,467 26,959	19,335 7,560	508,689 3,650	3,884,328 2,713,951	126,226 86,849	1,587,680 1,109,345	57 58
1,090	273	260	16,788	1,890	3,060	5	120	25	11,688	33,360	331	12,123	59
35,299 24,164	2,100 115	10,585	206,558 122,058	31,985 29,539	138,391 86,296	3,069 3,690	5,359 2,533	2,539	25,215	614,512 264,686	22,526 1,875	246,497 119,273	60 61
22,418 3,022	1,024 585	9,570 962	188,606 44,452	34,752 16,790	60,138 24,986	2,241 591	3,739 1,569	4,957 516	82,779	286,468 102,482	11,921 5,080	101,394 27,020	62 63

[3] No company reported in 1902 for North Dakota, and the 1 company in South Dakota in 1902 failed to furnish this information.

TABLE 125.—OPERATING EXPENSES, BY ACCOUNTS, BY STATES

	STATE OR TERRITORY.	Census.	Number of companies.	Aggregate.	MAINTENANCE.							
					Ways and structures.				Equipment.			
					Total.	Track and roadway.	Electric, cable, etc., lines.	Buildings and fixtures.	Total.	Steam plant.	Electric, cable, etc., plant.	Cars.
64	South Central division	1907	90	$14,887,271	$1,409,786	$1,075,224	$256,387	$78,175	$1,564,535	$203,594	$59,904	$714,448
65		1902	66	6,078,876	712,836	511,892	158,204	42,740	774,917	74,707	39,153	394,911
66	Kentucky	1907	13	2,825,497	391,680	328,154	45,655	17,871	266,893	40,583	5,730	118,663
67		1902	12	1,560,270	235,169	170,487	47,904	16,778	145,385	15,916	3,713	84,647
68	Tennessee	1907	9	2,494,252	119,232	79,155	32,067	8,010	241,226	19,880	5,319	116,578
69		1902	8	1,079,287	96,734	71,996	15,984	8,754	126,352	2,620	2,561	71,416
70	Alabama	1907	10	2,276,100	218,843	158,097	47,263	13,483	227,241	37,905	12,013	103,042
71		1902	9	878,291	71,473	57,864	11,218	2,391	114,402	4,828	5,845	60,243
72	Mississippi	1907	8	534,542	64,871	29,284	28,233	7,354	57,040	7,205	4,918	37,157
73		1902	5	192,056	16,407	10,703	5,175	529	14,857	2,013	1,358	7,525
74	Louisiana	1907	11	2,682,481	254,894	105,988	48,724	10,182	380,784	50,242	11,113	159,812
75		1902	8	1,758,989	102,924	100,511	55,444	6,969	244,121	40,409	22,765	101,327
76	Arkansas	1907	8	683,262	34,076	28,116	4,034	1,926	62,403	3,051	574	33,642
77		1902	7	216,433	18,959	16,214	1,589	1,156	19,405	3,432	249	9,873
78	Oklahoma[1]	1907	8	357,917	37,241	30,395	6,201	645	35,756	3,144	2,979	13,306
79	Texas	1907	23	3,093,220	288,949	226,635	44,210	18,704	293,192	41,524	17,252	132,248
80		1902	17	993,600	111,110	84,057	20,800	6,163	110,395	5,489	2,662	59,880
81	Western division	1907	91	25,456,622	3,179,058	2,333,530	629,930	215,598	3,898,367	149,905	183,623	1,873,894
82		1902	67	9,672,123	1,068,523	686,823	330,689	51,011	1,042,904	88,492	115,888	481,352
83	Montana	1907	5	551,933	49,904	41,119	7,958	887	55,058	.....	.....	35,882
84		1902	5	365,073	39,107	33,873	2,509	2,725	28,317	328	212	14,522
85	Colorado	1907	11	2,099,421	173,545	125,304	34,267	13,974	258,731	12,175	5,665	121,052
86		1902	7	1,300,606	187,102	119,560	60,747	6,885	128,618	14,412	8,442	59,333
87	Washington	1907	14	5,140,501	450,447	356,298	77,456	22,693	546,373	23,347	33,767	262,197
88		1902	8	1,576,018	186,485	143,561	29,097	13,827	135,767	16,979	12,639	59,272
89	Oregon	1907	8	1,638,271	170,847	122,144	38,988	9,715	201,920	.....	.....	95,474
90		1902	6	653,912	69,923	51,680	12,007	6,236	86,486	5,218	7,177	42,225
91	California	1907	41	14,578,367	2,061,321	1,541,767	363,533	156,021	2,647,681	110,598	135,413	1,271,890
92		1902	35	5,402,245	530,602	202,041	219,005	19,556	621,653	49,956	86,183	291,809
93	All other Western states and territories.[2]	1907	12	1,448,129	266,934	146,898	107,728	12,308	188,604	3,785	8,778	87,399
94		1902	6	374,269	55,214	46,108	7,324	1,782	42,063	1,569	1,235	14,191
95	Hawaii and Porto Rico[3]	1907	4	418,432	18,850	11,028	6,779	1,043	34,513	4,738	634	15,294
96		1902	5	330,350	20,799	15,597	2,126	3,076	27,677	1,556	330	13,434

[1] No company reported in 1902.
[2] Includes states and territories as follows: 1907—Arizona, 4; Idaho, 2; Nevada, 1; New Mexico, 2; Utah, 3. 1902—Arizona, 1; Idaho, 1; New Mexico, 1; Utah, 3.

AND GEOGRAPHIC DIVISIONS: 1907 AND 1902—Continued.

MAINTENANCE—Continued.			TRANSPORTATION.										
Equipment—continued.			Operation of power plant.							Operation of cars.			
Electric, cable, etc., equipment of cars.	Miscellaneous.	Miscellaneous shop expenses.	Total.	Wages.	Fuel.	Water.	Lubricants and waste.	Miscellaneous supplies and expenses.	Power purchased.	Total.	Superintendence of transportation.	Wages of conductors.	
$474,701 217,852	$23,504 11,796	$88,384 36,498	$2,605,548 1,052,262	$471,943 226,803	$1,598,601 543,043	$37,072 18,625	$65,851 42,790	$60,545 45,340	$461,536 175,661	$5,274,369 2,700,271	$236,677 135,054	$2,029,925 881,385	64 65
90,921 32,570	913 1,492	10,077 7,047	378,188 184,764	93,432 46,105	208,411 100,244	13,091 4,902	13,667 6,760	9,123 13,547	40,464 13,146	1,101,699 653,671	65,284 58,187	427,095 99,084	66 67
75,881 38,133	3,381 1,229	20,187 10,393	434,437 163,842	73,377 21,759	264,873 72,189	2,495 3,315	12,533 4,081	8,093 1,878	73,066 60,620	886,111 409,102	44,190 25,700	333,748 164,145	68 69
52,151 36,762	5,667 3,436	16,400 3,288	403,489 114,063	64,613 23,074	250,099 67,084	8,510 4,140	6,132 3,233	13,803 1,479	60,332 14,453	642,840 300,598	37,877 20,273	231,060 105,877	70 71
7,415 3,111	31 661	314 189	186,066 61,945	44,656 14,073	129,940 39,643	4,729 2,441	4,830 2,659	2,751 1,511	 1,618	131,258 40,765	7,233 1,395	48,216 15,229	72 73
140,399 66,198	5,355 3,414	13,863 10,098	486,384 295,083	71,173 76,026	347,620 172,626	960 511	17,146 20,607	15,212 23,313	34,273 2,000	1,130,513 831,936	32,260 10,610	472,867 340,139	74 75
18,597 5,290	1,415 105	5,124 456	113,805 55,129	26,820 15,347	61,695 26,814	2,169 2,183	1,958 2,075	4,093 162	17,070 8,548	214,656 87,830	13,907 2,551	70,715 21,905	76 77
13,957	706	1,604	87,434	6,771	15,731	158	662	623	63,489	141,607	3,123	54,996	78
75,377 35,788	5,976 1,459	20,815 5,117	604,905 177,436	91,101 30,359	320,232 63,843	4,960 1,133	8,923 3,375	6,847 3,450	172,842 75,276	1,025,685 376,369	32,803 16,338	391,228 129,006	79 80
1,393,009 299,168	82,309 32,669	215,627 25,365	3,881,774 1,622,832	531,840 354,586	803,343 755,914	30,116 12,834	33,746 26,265	68,066 34,271	2,414,663 438,962	9,983,446 4,413,280	316,290 116,363	3,865,133 1,881,306	81 82
12,723 11,349	112 710	6,341 1,196	58,182 58,983	104 12,053	 10,282	 1,363	 797	22 1,098	57,966 24,390	226,451 140,188	1,695 600	97,692 57,842	83 84
95,629 39,552	1,644 1,875	22,566 5,004	354,025 240,298	93,162 73,144	198,883 136,386	3,594 3,509	8,785 3,820	5,183 1,925	44,418 21,514	877,614 531,548	25,479 16,032	364,801 224,862	85 86
168,726 37,102	11,909 6,386	46,427 3,389	505,431 274,662	98,158 48,888	130,040 141,364	6,509 3,374	4,123 3,589	6,689 9,491	349,612 67,956	1,903,992 515,418	55,379 9,980	720,646 222,103	87 88
73,046 30,400	22,268 1,413	11,132 53	169,846 108,877	637 29,980	 25,022	 12	20 3,430	20 1,242	169,169 49,191	816,351 293,011	10,452 9,405	337,162 126,473	89 90
972,546 157,048	42,528 21,461	114,706 15,196	2,389,993 878,716	302,472 180,522	446,931 428,453	19,042 4,388	19,757 14,152	20,284 20,451	1,572,507 224,750	5,711,190 2,762,258	199,203 73,246	2,154,162 1,181,880	91 92
70,339 23,717	3,848 824	14,455 527	314,597 61,296	37,217 3,999	27,480 5,407	971 188	1,061 477	26,868 64	220,991 51,161	447,848 170,857	24,082 7,100	190,670 68,146	93 94
11,027 9,385	1,120 1,586	1,700 1,380	78,958 55,327	14,262 10,617	59,084 37,829	2,067 1,013	1,816 1,097	1,729 571	 4,200	142,821 110,797	7,203 3,969	58,411 35,238	95 96

[1] Includes companies as follows: 1907—Hawaii, 1; Porto Rico, 3. 1902—Hawaii, 3; Porto Rico, 2.

TABLE 125.—OPERATING EXPENSES, BY ACCOUNTS, BY STATES

	STATE OR TERRITORY.	Census.	TRANSPORTATION—continued. Operation of cars—Continued. Wages of motormen.	Wages of other car-service employees.	Wages of car-house employees.	Car-service supplies.	Miscellaneous car-service expenses.	Hired equipment.	Cleaning and sanding track.	Removal of snow and ice.	GENERAL. Total.	Salaries of general officers.
1	United States	1907	$37,021,885	$5,056,964	$6,719,370	$2,137,024	$4,827,399	$573,829	$1,888,507	$957,031	$43,404,465	$4,837,969
2		1902	24,602,872	2,595,052	3,214,605	1,905,155	1,924,599	.....	730,981	750,959	25,812,009	2,993,123
3	North Atlantic division	1907	17,158,415	2,888,600	3,501,427	758,874	2,420,536	290,949	994,859	802,468	19,958,912	1,770,595
4		1902	13,328,840	1,682,108	1,581,770	1,192,106	1,064,225	.....	331,197	657,703	14,119,869	1,217,234
5	Maine	1907	191,256	14,422	38,607	8,004	46,517	7,890	11,688	49,070	238,779	45,542
6		1902	142,135	10,593	16,968	4,403	27,594	.....	2,290	13,460	197,793	22,998
7	New Hampshire	1907	101,428	10,501	10,079	7,012	8,648	1,116	8,202	7,025	203,990	21,266
8		1902	67,680	3,645	7,197	2,736	963	.....	180	5,332	95,299	9,088
9	Vermont	1907	35,247	5,742	9,423	2,190	5,266	1,079	586	2,810	57,742	16,268
10		1902	34,109	5,049	6,106	1,812	2,158	.....	230	2,284	22,201	6,046
11	Massachusetts	1907	3,284,460	659,377	585,698	119,665	478,990	92,447	194,936	231,997	3,621,930	347,960
12		1902	2,711,885	372,828	419,198	55,799	289,900	.....	95,241	197,523	2,933,327	266,635
13	Rhode Island	1907	438,928	50,826	103,532	15,058	47,102	2,797	25,699	13,509	436,903	32,257
14		1902	300,805	21,438	68,672	22,770	11,456	.....	16,027	16,518	306,309	25,777
15	Connecticut	1907	660,808	38,903	100,256	31,141	65,774	9,899	47,635	39,835	600,634	61,130
16		1902	442,425	32,096	57,614	16,067	29,186	.....	28,604	34,925	419,887	127,904
17	New York	1907	6,802,131	1,741,583	1,835,219	312,227	1,344,047	120,825	320,208	333,756	8,983,984	674,378
18		1902	5,796,028	1,001,318	619,944	373,777	556,546	.....	72,320	250,285	6,632,892	428,451
19	New Jersey	1907	1,199,119	85,759	180,049	61,857	180,086	2,163	67,924	54,382	1,448,934	135,887
20		1902	758,709	108,906	95,787	69,409	48,562	.....	12,759	16,762	804,551	107,036
21	Pennsylvania	1907	4,495,532	280,537	632,474	201,720	293,506	52,733	317,981	70,078	4,366,016	435,907
22		1902	3,080,050	76,240	290,284	145,273	97,860	.....	103,546	120,614	2,707,610	223,299
23	South Atlantic division	1907	2,233,844	244,437	290,999	107,658	293,094	111,849	79,849	20,472	2,722,624	475,266
24		1902	1,301,808	121,707	153,386	77,208	125,790	.....	31,603	8,162	1,509,373	260,940
25	Delaware	1907	87,144	3,847	5,076	3,982	395	.....	563	1,809	84,918	12,058
26		1902	60,080	4,084	3,973	1,450	882	.....	361	1,431	94,178	6,400
27	Maryland and District of Columbia.	1907	1,052,082	103,863	108,284	14,675	119,293	48,990	36,565	11,607	1,027,476	144,968
28		1902	732,190	65,452	77,365	41,767	46,995	.....	14,444	4,464	697,712	89,949
29	Virginia	1907	342,562	61,986	48,153	51,509	49,663	61,422	7,380	247	495,320	98,738
30		1902	114,326	16,749	15,594	15,184	22,739	.....	1,906	310	204,951	42,152
31	West Virginia	1907	211,345	18,412	42,173	10,840	29,534	97	6,554	6,807	234,540	48,011
32		1902	118,573	4,037	7,034	4,011	23,790	.....	2,422	1,520	106,707	26,284
33	North Carolina	1907	68,463	9,676	5,338	3,547	5,820	.....	2,579	.....	138,325	26,698
34		1902	29,762	6,619	3,023	4,396	600	.....	1,004	400	57,135	14,275
35	South Carolina	1907	67,527	6,595	9,667	4,694	38,501	.....	4,187	2	158,275	35,918
36		1902	38,277	4,956	11,154	2,722	20,903	.....	2,305	28	68,416	17,260
37	Georgia	1907	302,376	38,515	56,319	12,257	38,712	.....	16,178	.....	427,909	61,583
38		1902	170,243	17,304	24,162	5,320	8,549	.....	6,671	.....	218,135	46,222
39	Florida	1907	102,345	6,543	16,049	6,154	11,176	840	5,843	.....	155,861	47,292
40		1902	37,851	1,656	11,081	2,418	1,332	.....	2,430	.....	62,139	18,398
41	North Central division	1907	11,645,657	1,321,643	2,175,237	815,843	1,405,860	149,165	539,475	121,569	14,181,114	1,769,581
42		1902	6,961,140	643,675	1,167,032	415,037	547,011	.....	270,847	73,959	7,646,932	1,040,887
43	Ohio	1907	2,731,099	209,696	490,500	177,623	338,720	77,977	130,035	12,994	2,808,099	419,661
44		1902	1,761,552	136,863	281,003	82,773	87,762	.....	71,511	12,713	1,553,649	269,697
45	Indiana	1907	746,773	122,870	164,626	69,927	143,648	5,450	34,330	5,238	1,383,159	194,553
46		1902	364,174	9,725	56,123	21,357	18,884	.....	13,572	4,210	408,474	93,060
47	Illinois	1907	3,768,266	506,978	602,922	257,816	492,797	50,817	228,265	54,304	4,970,832	450,399
48		1902	2,094,870	302,081	353,302	147,441	203,683	.....	102,580	27,271	2,819,259	237,995
49	Michigan	1907	975,400	288,878	170,790	99,919	115,536	11,067	25,826	20,155	1,015,354	144,899
50		1902	631,592	68,555	117,433	41,790	45,196	.....	10,418	13,151	657,699	125,835
51	Wisconsin	1907	468,887	13,339	96,971	23,317	60,785	400	12,670	7,602	548,197	65,619
52		1902	310,402	4,437	46,474	11,600	27,492	.....	10,517	2,681	307,023	53,591
53	Minnesota	1907	592,890	31,631	141,070	57,681	67,959	.....	23,054	12,188	739,768	102,232
54		1902	294,234	20,231	75,107	26,870	21,401	.....	12,915	4,118	327,960	43,234
55	Iowa	1907	383,903	62,490	93,535	22,620	51,027	695	15,646	2,871	518,011	95,208
56		1902	230,912	16,505	45,349	12,502	9,673	.....	3,284	4,681	259,804	47,738
57	Missouri	1907	1,591,677	61,973	271,458	83,972	95,182	2,147	55,167	3,846	1,785,733	144,531
58		1902	1,100,274	61,838	183,694	60,425	71,066	.....	43,461	2,999	1,179,639	136,140
59	North and South Dakota [1]	1907	13,097	1,407	2,757	792	926	.....	1,014	913	12,253	3,520
60	Nebraska	1907	256,597	2,932	34,427	11,820	29,525	237	9,196	755	259,139	51,230
61		1902	119,695	11,597	5,134	4,955	168	.....	527	1,462	83,372	17,007
62	Kansas	1907	117,068	19,449	16,181	5,356	9,755	375	4,266	703	140,569	37,669
63		1902	53,381	2,843	4,413	5,324	1,686	.....	2,062	673	50,053	16,590

[1] No company reported in 1902 for North Dakota, and the 1 company in South Dakota in 1902 failed to furnish this information.

AND GEOGRAPHIC DIVISIONS: 1907 AND 1902—Continued.

GENERAL—continued.													
Salaries of clerks.	Printing and stationery.	Miscellaneous office expenses.	Stores expenses.	Stable expenses.	Advertising and attractions.	Miscellaneous general expenses.	Damages and legal expenses incident thereto.	Other legal expenses.	Rent of land and buildings.	Rent of tracks and terminals.	Insurance.	Wages, supplies, and expenses incident to electric service, not elsewhere included.	
$3,930,579 2,237,723	$838,562 496,381	$935,227 666,997	$616,769 229,237	$1,022,893 1,430,000	$1,730,851 1,122,816	$3,173,979 2,061,821	$13,170,305 9,395,545	$1,325,550 1,017,854	$970,424 608,344	$2,768,786 1,471,293	$3,137,071 2,080,875	$6,168,873 2,188,753	1 2
1,674,177 1,160,672	397,226 270,506	400,756 401,926	298,748 66,871	740,406 1,128,039	623,413 524,504	1,330,488 885,490	9,381,197 5,501,569	509,234 508,242	455,843 350,403	900,902 770,498	1,475,927 1,333,915	965,546 472,345	3 4
27,243 20,896	5,840 4,642	7,679 4,015	1,677	8,602 4,776	31,438 45,130	21,646 32,128	37,518 27,005	5,179 880	10,631 8,662	5,590 5,596	30,194 21,005	41,898 49,228	5 6
8,977 4,978	2,569 4,456	5,163 6,928	863 128	1,195 3,637	29,806 16,288	10,149 8,527	89,863 14,791	3,369 419	10,310 7,665	7,158 36	13,302 18,448	2,931 2,487	7 8
3,151 1,967	1,108 533	2,661 446	166	1,069 2,704	5,708 3,629	9,131 3,275	12,484 487	1,368 445	688 746	....	3,940 1,923	....	9 10
302,762 248,465	94,030 111,705	52,303 71,325	57,866 10,882	72,433 34,459	184,255 92,324	415,602 203,366	1,498,892 859,722	124,278 53,609	100,828 139,111	88,816 366,935	281,905 474,699	54,078 42,763	11 12
61,490 15,356	9,475 122	10,345 4,867	10,419	6,627 532	4,790 783	43,226 12,200	215,311 165,807	6,287 21,313	9,519 32,955	380	26,777 26,597	1,234	13 14
68,965 44,372	11,438 7,615	18,493 10,139	11,460 2,922	7,299 9,235	93,396 47,336	34,578 28,454	176,951 55,845	17,467 30,327	15,900 4,002	20,426 5,283	63,131 46,453	520,489 182,344	15 16
735,731 539,651	132,718 54,275	170,014 137,944	120,536 37,015	572,357 1,008,873	134,684 111,378	440,108 325,300	4,494,426 3,004,278	212,070 232,655	183,564 120,749	525,919 205,935	587,479 426,388	231,645 181,692	17 18
117,820 64,824	29,118 38,335	23,649 19,379	39,678 12,650	21,229 22,585	18,561 15,660	92,069 23,378	708,065 363,471	10,954 39,849	27,463 12,958	21,475 30,488	112,966 53,938	2,235 11,479	19 20
348,038 220,163	110,930 48,733	110,449 146,883	56,083 3,274	49,595 41,238	120,775 191,976	263,979 248,862	2,057,687 1,010,253	128,262 128,745	96,940 23,555	231,138 156,225	356,233 264,404	111,036 2,352	21 22
285,410 179,222	57,033 33,393	52,515 34,129	16,975 12,481	44,280 30,101	172,122 111,354	214,772 133,621	945,835 434,330	72,080 56,034	59,379 15,097	83,221 62,730	243,736 142,941	1,605,983 605,864	23 24
6,648 5,181	2,332 1,616	1,448 1,137	 150	1,073 888	9,525 12,412	2,690 3,803	37,958 20,472	74 253	78 99	 34,035	11,034 7,672	....	25 26
146,999 98,730	26,469 16,272	11,480 13,869	4,891 4,464	29,399 21,247	22,964 12,119	65,657 67,615	395,091 264,298	30,506 23,594	18,466 2,375	8,720 7,866	121,866 75,314	 6,007	27 28
26,772 15,676	6,645 4,717	10,915 7,303	1,471 2,948	2,582 525	52,828 24,531	38,921 17,577	181,643 28,056	9,218 17,004	11,589 5,672	17,102 16,647	36,896 22,083	568,006 49,394	29 30
21,727 13,173	4,556 930	5,822 1,623	1,926	1,318 450	16,193 1,715	27,502 14,482	49,145 29,064	10,831 6,294	2,261 1,342	26,645	18,603 11,350	62,988 72,643	31 32
19,542 7,424	3,085 1,742	4,456 2,035	464 500	366 510	20,291 13,133	7,327 2,809	32,185 6,008	1,133 2,472	8,662 400	750 687	13,366 4,180	155,503 49,721	33 34
10,100 4,609	2,770 632	5,483 2,584	1,405 1,718	2,174 1,872	19,994 11,122	14,982 9,228	47,912 13,498	581 399	5,408 642	2,664	8,884 4,852	22,467 79,977	35 36
41,956 22,677	7,365 6,128	8,898 2,751	4,630 1,957	5,855 3,597	24,121 28,297	42,793 9,548	157,601 67,740	12,320 7,336	10,721 4,567	27,340 3,495	22,726 13,820	552,717 284,698	37 38
11,666 11,752	3,811 1,356	4,013 1,867	2,188 684	1,513 1,012	6,206 8,025	14,900 8,499	44,300 5,194	7,417 1,682	2,194	....	10,361 3,670	244,302 62,524	39 40
1,203,912 623,401	244,569 138,435	318,678 152,287	211,249 88,315	140,699 183,243	475,908 282,449	1,128,366 792,107	5,204,823 2,788,969	569,415 354,507	339,427 151,602	1,519,325 619,418	1,025,162 431,312	1,742,149 683,205	41 42
310,269 150,200	62,602 36,343	75,111 36,743	43,601 15,785	19,023 24,334	61,245 58,975	234,153 201,350	918,550 442,805	91,333 65,468	121,451 50,946	228,165 92,899	222,845 108,104	633,996 100,801	43 44
159,258 46,184	32,580 8,913	24,506 11,134	15,572 9,624	7,263 7,716	56,503 31,887	91,341 51,013	333,697 73,122	35,448 14,962	50,975 8,668	288,482 31,606	92,972 20,585	160,591 99,404	45 46
327,336 164,765	56,716 28,933	89,861 45,934	45,232 23,435	59,476 95,424	113,802 28,645	375,236 226,542	1,978,711 1,188,585	205,343 173,202	99,171 55,228	907,855 463,528	261,694 87,043	101,050 52,768	47 48
103,610 78,206	23,520 21,597	28,313 20,188	15,442 6,258	5,220 5,823	52,485 56,524	125,575 92,871	336,796 137,771	42,851 27,596	22,663 16,920	47,246 17,663	66,734 41,357	120,758 11,764	49 50
38,325 25,847	16,233 5,758	48,939 5,735	9,254 5,158	3,462 9,132	9,573 6,359	46,597 19,330	107,287 109,538	48,258 14,826	4,850 2,338	....	59,791 49,411	425,362 277,641	51 52
55,326 36,996	13,353 6,429	11,954 4,971	43,690 10,188	6,702 4,644	58,852 6,195	83,567 56,710	244,555 124,896	58,195 8,750	1,248 4,265	1,095	58,999 20,682	43,108 29,797	53 54
59,243 24,734	11,773 7,765	11,798 4,952	8,035 3,081	6,960 5,750	54,145 40,183	47,978 35,388	106,100 47,319	13,552 9,495	25,140 6,925	29,789 6,005	48,230 20,469	224,225 78,372	55 56
113,502 85,021	20,527 16,517	22,750 12,829	26,329 14,786	26,061 24,704	36,129 50,227	94,870 97,304	1,038,003 619,784	62,859 37,218	7,784 5,454	4,558 7,617	187,740 72,038	28,809 26,379	57 58
1,754	337	126	18	.....	624	781	1,957	438	688	550	1,460	.....	59
19,447 7,728	2,997 4,587	1,815 461	2,765	3,159 1,205	15,027	16,022 9,109	112,901 32,540	6,332 2,400	2,055	11,585	12,904 8,335	....	60 61
15,842 3,630	3,922 1,593	3,505 340	1,221	3,373 4,511	16,623 3,454	12,246 2,490	26,176 12,609	4,806 590	3,303 858	 100	11,793 3,288	4,250 6,279	62 63

TABLE 125.—OPERATING EXPENSES, BY ACCOUNTS, BY STATES

	STATE OR TERRITORY.	Census.	TRANSPORTATION—continued. Operation of cars—Continued. Wages of motormen.	Wages of other car-service employees.	Wages of car-house employees.	Car-service supplies.	Miscellaneous car-service expenses.	Hired equipment.	Cleaning and sanding track.	Removal of snow and ice.	GENERAL. Total.	Salaries of general officers.
64	South Central division	1907	$2,120,165	$97,564	$328,478	$102,796	$255,520	$1,208	$101,348	$688	$2,883,966	$385,231
65		1902	1,173,051	72,697	160,084	113,257	116,921	.....	37,354	1,468	1,197,684	233,856
66	Kentucky	1907	448,622	8,771	54,486	10,936	70,068	607	15,294	536	622,945	52,435
67		1902	288,499	28,014	23,244	72,591	74,510	.....	7,352	1,290	313,510	44,832
68	Tennessee	1907	344,672	10,723	73,198	23,091	29,082	.....	18,286	121	497,492	46,714
69		1902	176,851	6,223	11,954	13,340	6,288	.....	4,464	137	237,734	32,075
70	Alabama	1907	227,733	12,559	36,941	13,450	71,249	360	11,602	9	449,380	46,051
71		1902	112,630	7,489	32,738	8,268	8,203	.....	5,071	.....	124,105	24,701
72	Mississippi	1907	53,409	7,020	8,116	2,163	2,794	20	1,318	.....	94,467	25,020
73		1902	17,351	.....	3,727	1,185	758	.....	1,120	.....	49,362	12,959
74	Louisiana	1907	474,944	12,115	63,399	26,287	22,174	.....	26,467	.....	360,356	55,466
75		1902	351,266	13,880	63,090	9,569	20,017	.....	11,459	.....	221,128	53,567
76	Arkansas	1907	93,815	5,101	11,864	4,812	7,943	46	6,431	22	124,490	21,725
77		1902	44,175	1,188	14,687	1,700	982	.....	639	3	33,555	9,099
78	Oklahoma[1]	1907	51,410	2,078	16,257	3,203	7,503	175	2,853	.....	55,879	14,244
79	Texas	1907	425,491	29,288	64,217	18,854	44,707	.....	19,097	.....	678,957	123,576
80		1902	182,270	10,047	18,744	6,604	6,073	.....	7,249	38	218,290	50,623
81	Western division	1907	3,863,804	504,720	423,229	351,853	452,389	21,158	173,036	11,834	3,717,849	497,296
82		1902	1,899,027	125,465	143,333	107,487	70,652	.....	59,980	9,667	1,338,151	240,206
83	Montana	1907	100,283	.....	9,745	6,342	3,753	.....	6,103	838	117,950	21,228
84		1902	51,886	150	5,980	15,456	2,263	.....	5,342	669	76,738	11,150
85	Colorado	1907	361,901	15,608	35,170	14,027	38,157	3,739	16,418	1,264	359,368	54,422
86		1902	231,261	3,888	16,624	12,332	15,079	.....	9,672	1,798	208,680	38,813
87	Washington	1907	725,050	134,608	75,913	60,161	80,935	3,199	40,070	8,022	1,017,532	174,688
88		1902	222,087	10,308	24,308	3,484	15,849	.....	2,429	4,860	311,290	50,775
89	Oregon	1907	335,801	26,778	35,299	22,709	35,197	300	12,446	207	279,307	35,173
90		1902	126,626	7,456	9,383	6,991	1,695	.....	4,045	987	87,588	20,733
91	California	1907	2,148,670	324,817	247,280	240,795	286,690	13,089	96,478	.....	1,753,116	182,836
92		1902	1,187,715	103,147	81,333	66,925	30,826	.....	36,585	601	600,016	105,628
93	All other Western states and territories.[2]	1907	192,024	2,819	19,822	6,919	7,657	831	1,521	1,503	190,576	28,949
94		1902	79,452	456	5,705	2,349	4,940	.....	1,907	802	44,839	13,107
95	Hawaii and Porto Rico[3]	1907	58,619	1,370	3,625	6,071	3,760	.....	3,762	.....	75,406	20,155
96		1902	58,257	2,222	3,887	2,079	826	.....	4,319	.....	95,366	8,959

[1] No company reported in 1902.
[2] Includes states and territories as follows: 1907—Arizona, 4; Idaho, 2; Nevada, 1; New Mexico, 2; Utah, 3. 1902—Arizona, 1; Idaho, 1; New Mexico, 1; Utah, 3.

AND GEOGRAPHIC DIVISIONS: 1907 AND 1902—Continued.

GENERAL—continued.													
Salaries of clerks.	Printing and stationery.	Miscellaneous office expenses.	Stores expenses.	Stable expenses.	Advertising and attractions.	Miscellaneous general expenses.	Damages and legal expenses incident thereto.	Other legal expenses.	Rent of land and buildings.	Rent of tracks and terminals.	Insurance.	Wages, supplies, and expenses incident to electric service, not elsewhere included.	
$231,664	$44,348	$55,688	$30,044	$57,282	$190,404	$207,758	$1,245,134	$69,087	$39,091	$167,682	$159,653	$1,059,067	64
89,492	29,205	30,092	30,862	45,176	60,604	161,784	308,836	49,453	73,835	8,886	74,703	240,906	65
31,583	5,413	8,056	4,914	19,392	15,273	38,969	292,710	10,356	3,650	114,996	25,198	64,092	66
15,914	8,838	9,041	20,036	4,088	14,344	84,324	70,450	13,507	3,355	6,600	18,181	27,771	67
41,216	8,321	10,855	8,870	5,334	23,386	47,694	255,865	15,125	5,331	.....	28,781	255,754	68
14,673	4,716	3,180	1,738	6,031	4,010	18,849	68,368	12,421	60,501	.....	10,572	45,473	69
32,597	8,127	9,815	3,164	6,146	34,095	35,568	233,073	4,351	5,596	8,775	22,022	334,307	70
8,922	3,896	4,850	3,040	6,832	11,078	10,966	37,320	1,100	3,473	355	7,572	153,650	71
17,269	2,622	3,434	2,798	2,288	3,088	4,778	24,554	1,116	3,313	.....	4,187	.....	72
4,640	1,187	2,014	.....	1,181	2,567	3,461	15,124	1,447	2,023	.....	2,759	8,660	73
31,749	4,898	4,300	3,966	10,926	63,913	14,811	115,982	16,052	2,827	.....	35,466	69,550	74
23,927	4,407	5,627	3,846	13,882	13,109	26,096	38,470	13,137	931	820	23,309	3,797	75
16,276	2,189	3,587	677	3,144	16,902	14,266	34,692	1,600	909	.....	8,523	133,832	76
5,562	620	510	617	3,838	569	5,636	3,363	593	202	.....	3,006	1,555	77
9,018	1,025	3,220	854	205	3,142	5,327	10,418	1,334	2,655	.....	3,537	.....	78
51,956	10,853	12,421	5,701	9,847	30,605	46,345	277,840	19,153	14,810	43,911	31,939	201,532	79
15,914	5,541	5,770	1,585	8,724	14,927	12,452	75,741	7,248	3,350	1,111	9,304	.....	80
535,416	95,386	107,590	58,853	39,726	269,004	292,595	1,309,316	105,734	76,684	97,656	232,593	796,128	81
184,936	24,842	47,663	30,708	43,441	143,905	88,819	361,841	46,018	17,407	9,761	93,004	186,433	82
10,451	1,005	1,739	143	420	47,594	12,924	9,928	4,510	2,257	.....	5,751	44,328	83
7,175	413	1,286	25	120	39,150	6,707	3,556	2,500	2,442	.....	2,214	21,740	84
61,056	6,802	9,128	13,407	3,042	23,293	53,732	88,120	6,680	22,645	566	16,475	76,138	85
30,189	3,682	5,394	5,645	3,410	32,959	20,952	44,897	5,102	5,240	.....	12,388	4,270	86
90,836	25,953	20,720	8,704	943	23,765	62,801	448,471	30,691	14,055	67,420	48,485	621,026	87
35,095	1,859	9,352	3,275	268	32,957	25,565	105,051	18,410	5,815	1,389	21,479	152,396	88
62,508	169	18,592	.....	977	6,517	25,389	111,487	.....	438	.....	18,057	.....	89
14,910	4,080	5,023	.....	2,888	2,310	5,571	14,221	5,201	1,810	5,073	5,759	8,027	90
258,308	46,022	49,450	36,040	33,940	160,229	122,727	613,515	52,836	32,061	20,550	135,602	15,066	91
94,947	12,053	25,143	21,763	32,956	35,547	26,578	183,476	14,045	2,100	3,299	51,481	.....	92
52,257	15,435	7,961	559	404	7,606	15,022	37,795	11,017	5,228	120	8,223	39,570	93
2,620	2,746	1,465	.....	3,790	982	3,446	10,640	1,360	.....	.....	4,683	.....	94
11,035	2,827	2,175	1,296	4,076	4,748	8,990	8,896	3,682	3,193	.....	4,333	67,884	95
14,098	1,861	344	903	54,142	3,018	3,225	3,023	1,983	624	.....	3,186	20,384	96

[1] Includes companies as follows: 1907—Hawaii, 1; Porto Rico, 3. 1902—Hawaii, 3; Porto Rico, 2.

IV.

DEDUCTIONS FROM INCOME (TAXES AND FIXED CHARGES).

In order to obtain a correct and comprehensive view of the financial results of operation for electric railways, an analysis of their aggregate deductions from income is necessary. The separation of deductions from income (sometimes termed "fixed charges") from operating expenses, for purposes of treatment in this report, simply follows the well-established and well-understood practice of accounting departments and accounting associations.

In some systems of accounting it is customary to regard and treat as fixed charges such payments as those for permanent improvements, and to include under the same head the salaries and maintenance of organization. In the standard form of accounting for electric railways used by the Census Bureau, however, the charge for permanent improvements is left as a later deduction from net income, while the salaries and maintenance of organization are included in operating expenses. The "deductions from income" appearing in the census tables will therefore be understood to cover taxes, interest, rent of leased lines, and miscellaneous deductions, the latter representing chiefly charges for depreciation and other special and minor payments.

An analysis of the deductions from income for all operating companies is presented in Table 126.

TABLE 126.—*Deductions from income (taxes and fixed charges), by accounts, of operating companies: 1907 and 1902.*

ACCOUNT.	1907		1902		Per cent of increase.
	Amount.	Per cent of total.	Amount.	Per cent of total.	
Number of companies	[1] 939	.....	[2] 799	.....	.....
Aggregate	$138,094,716	100.0	$77,595,053	100.0	78.0
Taxes, total	19,755,602	14.3	13,078,899	16.9	51.0
On real and personal property	9,464,616	6.9	5,835,542	7.5	62.2
On capital stock	2,348,439	1.7	2,931,252	3.8	[3] 19.9
On earnings	5,437,028	3.9	2,719,287	3.5	99.9
Miscellaneous	2,505,519	1.8	1,592,818	2.1	57.3
Interest, total	63,740,744	46.2	38,085,011	49.1	67.4
On funded debt	53,766,525	38.9	35,223,284	45.4	52.6
On real-estate mortgages	149,875	0.1	93,078	0.1	61.0
On floating debt	9,824,344	7.1	2,769,549	3.6	254.7
Rent of leased lines and terminals	48,022,596	34.8	25,518,225	32.9	88.2
Miscellaneous deductions	6,575,774	4.8	912,018	1.2	621.0

[1] Exclusive of 6 companies which failed to furnish this information.
[2] Exclusive of 18 companies which failed to furnish this information.
[3] Decrease.

The aggregate deductions from income increased during the five-year interval between the censuses by over $60,000,000, or 78 per cent. Of the separate items, the rates of increase in the interest on floating debt and in miscellaneous charges are conspicuously large, the former being over 250 per cent and the latter 621 per cent. It is a common practice, and evidently an increasing one, for operating railway companies to receive from a holding company financial aid in the form of loans, which are carried in their accounts as floating debt. In some instances these temporary advances not only are made at a high rate of interest but carry an added charge for commission or brokerage. This fact should be borne in mind in considering the great increase in interest on floating debt in 1907 as compared with 1902. The great increase in miscellaneous deductions is accounted for by the fact that a larger number of companies in 1907 than in 1902 made depreciation and sinking-fund charges—a feature of railway accounting which is treated more fully in a later section of this chapter.

Taxes formed practically one-seventh of the aggregate deductions in 1907; interest on funded and other debt, over three-sevenths; rent of leased lines, over one-third; and all other miscellaneous deductions, nearly one-twentieth. The lowering of the per cent ratios of taxes and interest to the aggregate deductions does not of necessity indicate any lessening of the amount or rate of taxes paid, or any lowering of the average rate of interest on loans. Rather, the change in these proportions is due to the disproportionately great increase in the other two items, rentals and miscellaneous deductions. The amount paid in taxes increased both in the aggregate and per company, and the aggregate interest payments increased even more.

The amount paid in taxes increased for all the kinds of tax, both in the aggregate and per company, except in the case of taxes on capital stock. The 19.9 per cent decrease in the capital-stock taxes calls for special explanation. In the first place, it is to be noted that these statistics are for operating companies only, and it is known that some operating companies, in their reports, did not make the same division in 1907 as in 1902 between the taxes paid respectively on the capital stock of the operating companies themselves and their lessor companies. A complete tabulation of the statistics of capital-stock taxes reported in 1902 was not made, but an examination of the schedules has been carried far enough to establish the fact that the capital-stock taxes paid by operating and lessor companies combined in that year exceeded the amount ($3,019,604) paid by both classes of companies in 1907 (see statement, p. 163). Detailed examination of the schedules and investigation developed the fact that a considerable part of the decrease is explained by the shrinkage in the market value of the securities of 1 company, which, in 1902, reported the payment of upward of $400,000 in taxes on capital stock as against less than $15,000 in 1907; and by a consolidation of a large number of companies into one of the largest city systems in the country, which in 1902 paid over $300,000 in capital-stock taxes on the securities of the constituent companies as against a greatly reduced amount paid in 1907, on account of the merger.

Deductions from income for groups of companies.—Table 127 presents the deductions from income for companies, classified according to income from railway operations at the censuses of 1907 and 1902, and Table 128 shows the per cent distribution of the aggregate among the several accounts for the different classes of companies. Tables 129 and 130 make similar distribution of the statistics for companies, classified according to kind of system and character of service in 1907.

TABLE 127.—DEDUCTIONS FROM INCOME (TAXES AND FIXED CHARGES), BY ACCOUNTS, OF OPERATING COMPANIES, CLASSIFIED ACCORDING TO INCOME FROM RAILWAY OPERATIONS: 1907 AND 1902.

ACCOUNT.	Census.	Total, all companies.	CLASSIFICATION GROUP.					Per cent of total.				
			$1,000,000 and over. (A)	$500,000 but less than $1,000,000. (B)	$250,000 but less than $500,000. (C)	$100,000 but less than $250,000. (D)	Less than $100,000. (E)	A	B	C	D	E
Number of companies	1907	[1] 939	76	50	80	182	551	8.1	5.3	8.5	19.4	58.7
	1902	[2] 799	44	28	53	112	562	5.5	3.5	6.6	14.0	70.3
Per cent of increase	.....	17.5	72.7	78.6	50.9	62.5	[3] 2.0	.....	.....	.....	.....	.....
Aggregate	1907	$138,094,716	$102,004,702	$12,091,065	$8,820,046	$9,067,818	$6,111,085	73.9	8.8	6.4	6.6	4.4
	1902	$77,595,053	$56,819,948	$5,799,751	$5,136,642	$5,016,268	$4,822,444	73.2	7.5	6.6	6.5	6.2
Per cent of increase	.....	78.0	79.5	108.5	71.7	80.8	26.7	.....	.....	.....	.....	.....
Taxes	1907	$19,755,602	$15,524,362	$1,426,864	$1,052,242	$1,071,560	$680,574	78.6	7.2	5.3	5.4	3.4
	1902	$13,078,890	$10,326,341	$879,446	$619,745	$650,056	$603,311	79.0	6.7	4.7	5.0	4.6
Per cent of increase	.....	51.0	50.3	62.2	69.8	64.8	12.8	.....	.....	.....	.....	.....
Interest, total	1907	$63,740,744	$35,648,870	$8,657,223	$6,845,069	$7,373,255	$5,216,327	55.9	13.6	10.7	11.6	8.2
	1902	$38,085,911	$21,796,528	$4,352,352	$3,867,059	$4,017,234	$4,052,738	57.2	11.4	10.2	10.5	10.6
Per cent of increase	.....	67.4	63.6	98.9	77.0	83.5	28.7	.....	.....	.....	.....	.....
On funded debt	1907	$53,766,525	$30,105,669	$7,035,156	$5,678,834	$6,534,654	$4,412,212	56.0	13.1	10.6	12.2	8.2
	1902	$35,223,284	$20,711,446	$3,844,873	$3,478,447	$3,687,086	$3,501,432	58.8	10.9	9.9	10.5	9.9
Per cent of increase	.....	52.6	45.4	83.0	63.3	77.2	26.0	.....	.....	.....	.....	.....
On real-estate mortgages	1907	$149,875	$90,773	$4,787	$379	$35,214	$18,722	60.6	3.2	0.3	23.5	12.5
	1902	$93,078	$50,768	$7,532	$6,065	$1,032	$27,681	54.5	8.1	6.5	1.1	29.7
Per cent of increase	.....	61.0	78.8	[3] 36.4	[3] 93.8	3,312.2	[3] 32.4	.....	.....	.....	.....	.....
On floating debt	1907	$9,824,344	$5,452,428	$1,017,280	$1,105,856	$803,387	$785,393	55.5	16.5	11.9	8.2	8.0
	1902	$2,769,549	$1,034,314	$499,947	$382,547	$329,116	$523,625	37.3	18.1	13.8	11.9	18.9
Per cent of increase	.....	254.7	427.2	223.5	204.8	144.1	50.0	.....	.....	.....	.....	.....
Rent of leased lines and terminals	1907	$48,022,596	$45,188,356	$1,629,743	$672,794	$449,708	$81,995	94.1	3.4	1.4	0.9	0.2
	1902	$25,518,225	$24,296,050	$492,650	$430,275	$193,794	$105,456	95.2	1.9	1.7	0.8	0.4
Per cent of increase	.....	88.2	86.0	230.8	56.4	132.1	[3] 22.2	.....	.....	.....	.....	.....
Miscellaneous deductions	1907	$6,575,774	$5,643,114	$377,235	$249,941	$173,295	$132,189	85.8	5.7	3.8	2.6	2.0
	1902	$912,018	$401,029	$75,303	$219,563	$155,184	$60,939	44.0	8.3	24.1	17.0	6.7
Per cent of increase	.....	621.0	1,307.2	401.0	13.8	11.7	116.9	.....	.....	.....	.....	.....

[1] Exclusive of 6 companies which failed to furnish this information.
[2] Exclusive of 18 companies which failed to furnish this information.
[3] Decrease.

TABLE 128.—PER CENT DISTRIBUTION, BY ACCOUNTS, OF AGGREGATE DEDUCTIONS FROM INCOME (TAXES AND FIXED CHARGES) OF OPERATING COMPANIES, CLASSIFIED ACCORDING TO INCOME FROM RAILWAY OPERATIONS: 1907 AND 1902.

ACCOUNT.	PER CENT OF AGGREGATE DEDUCTIONS FROM INCOME.											
	Total.		A		B		C		D		E	
	1907	1902	1907	1902	1907	1902	1907	1902	1907	1902	1907	1902
Aggregate	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Taxes	14.3	16.9	15.2	18.2	11.8	15.2	11.9	12.1	11.8	13.0	11.1	12.5
Interest, total	46.2	49.1	34.9	38.4	71.6	75.0	77.6	75.3	81.3	80.1	85.4	84.0
On funded debt	38.9	45.4	29.5	36.5	58.2	66.3	64.4	67.7	72.1	73.5	72.2	72.6
On real-estate mortgages	0.1	0.1	0.1	0.1	(1)	0.1	(1)	0.1	0.4	(1)	0.3	0.6
On floating debt	7.1	3.6	5.3	1.8	13.4	8.6	13.2	7.4	8.9	6.6	12.9	10.9
Rent of leased lines and terminals	34.8	32.9	44.3	42.8	13.5	8.5	7.6	8.4	5.0	3.9	1.3	2.2
Miscellaneous deductions	4.8	1.2	5.5	0.7	3.1	1.3	2.8	4.3	1.9	3.1	2.2	1.3

[1] Less than one-tenth of 1 per cent.

TABLE 129.—DEDUCTIONS FROM INCOME (TAXES AND FIXED CHARGES), BY ACCOUNTS, OF OPERATING COMPANIES, CLASSIFIED ACCORDING TO KIND OF SYSTEM AND CHARACTER OF SERVICE: 1907.

ACCOUNT.	Total, all companies.	CLASSIFICATION GROUP.				
		Kind of system.		Character of service.		
		Electric elevated and subway railways.[1]	Electric surface railways.[2]	Selected interurban lines.	Selected small urban roads.	All other railways.
Number of companies	[3] 930	6	933	50	100	789
Aggregate	$138,094,716	$13,459,216	$124,635,500	$10,767,359	$350,092	$126,977,265
Taxes	19,755,602	1,986,249	17,769,353	992,177	47,686	18,715,739
Interest, total	63,740,744	3,700,602	60,040,142	6,590,099	300,988	56,848,757
On funded debt	53,766,525	3,425,422	50,341,103	6,127,024	253,378	47,386,123
On real-estate mortgages	149,875	5,355	144,520	34,316	2,175	113,384
On floating debt	9,824,344	269,825	9,554,519	429,059	45,435	9,349,250
Rent of leased lines and terminals	48,022,596	5,966,120	42,056,476	3,054,413	.....	44,968,183
Miscellaneous deductions	6,575,774	1,806,245	4,769,529	129,770	1,418	6,444,586

[1] Exclusive of the mixed elevated, subway, and surface systems in Boston, Mass., and Philadelphia, Pa.
[2] Includes the statistics for the few railways not operated by electricity.
[3] Exclusive of 6 companies which failed to furnish this information.

TABLE 130.—*Per cent distribution, by accounts, of aggregate deductions from income (taxes and fixed charges) of operating companies, classified according to kind of system and character of service: 1907.*

ACCOUNT.	PER CENT OF AGGREGATE DEDUCTIONS FROM INCOME.					
	Total, all companies.	Kind of system.		Character of service.		
		Electric elevated and subway railways.	Electric surface railways.	Selected interurban lines.	Selected small urban roads.	All other railways.
Aggregate	100.0	100.0	100.0	100.0	100.0	100.0
Taxes	14.3	14.8	14.3	9.2	13.6	14.7
Interest, total	46.2	27.5	48.2	61.2	86.0	44.8
On funded debt	38.9	25.5	40.4	56.9	72.4	37.3
On real-estate mortgages	0.1	(1)	0.1	0.3	0.6	0.1
On floating debt	7.1	2.0	7.7	4.0	13.0	7.4
Rent of leased lines and terminals	34.8	44.3	33.7	28.4	.....	35.4
Miscellaneous deductions	4.8	13.4	3.8	1.2	0.4	5.1

[1] Less than one-tenth of 1 per cent.

It is evident from Table 127 that the great increases shown for rentals and miscellaneous deductions, which have already been referred to, were due almost entirely to conditions prevailing among companies of Class A. Thus the increase in miscellaneous deductions shown for Class A amounted to 1,307.2 per cent as against an increase of only 82.5 per cent for all the other classes combined. And in the case of the rentals, though the increase for Class A is actually exceeded by the increases shown for two other classes, B and D, yet the total payments for rentals by companies of this class formed so large a proportion (94.1 per cent) of the totals for this item as to exercise the controlling influence on the percentage of increase for companies as a whole.

From Table 128 it will be seen that the distribution of the aggregate deductions from income shows some wide differences for companies of different size. With companies having an annual income of $1,000,000 or over, the most important fixed charge is rent of leased lines, which amounted to more than three-sevenths of the total fixed charges for these companies in 1907, while for other companies the interest on funded and other debt makes up by far the largest share of the total. Starting with Class B, for which the ratio is 71.6 per cent, the ratio of interest to total deductions increases from class to class until it reaches 85.4 per cent in Class E. Though for some classes the corresponding ratios for 1902 were smaller than in 1907, there was a similar progression—from 75 per cent for the companies belonging to Class B to 84 per cent for those in Class E. It will also be noticed that the total payments in taxes to city and state governments are proportionately heaviest in the case of the large companies of Class A, as for companies of this class slightly over 15 per cent of the total fixed charges represent such payments. These large companies also report greater allowance proportionately for depreciation and special obligations than did the smaller companies.

Table 130 shows that interest on funded obligations is the most important fixed charge with interurban lines, 56.9 per cent of their total fixed payments being required for this purpose as compared with 25.5 per cent for the electric elevated and subway railways and 72.4 per cent for the selected small urban roads. On the other hand, tax payments are relatively small for interurban lines, only 9.2 per cent of the total deductions from income being thus applied as compared with 13.6 and 14.8 per cent, respectively, for the selected small urban roads and the elevated and subway railways.

Taxes.[1]—In 1907 the operating and lessor companies combined paid $20,682,061 in taxes to the local and state governments as compared with $13,366,335 in 1902, an increase of $7,315,726, or 54.7 per cent. There is a lack of uniformity in the various states and municipalities in regard to the definition and interpretation of the different kinds of taxes, which detracts

[1] See Ch. V of Part II of this report for municipal taxation methods, etc.

somewhat from the value of these statistics when the total taxes are itemized by kinds. While taxes on real estate were reported for all states, there are wide variations in the rate and the method of determining the value of the property subject to taxation. The following statement shows the total taxes reported for 1907, divided according to the kinds of tax and the amount of each kind contributed by the operating and the lessor companies:

Taxes, distributed by kind, of operating and lessor companies, respectively: 1907.

CLASS OF COMPANY.	Total.	KIND OF TAX.			
		On real and personal property.	On capital stock.	On earnings.	Miscellaneous.
Total, all companies	$20,682,061	$9,548,216	$3,019,604	$5,553,079	$2,561,162
Operating	19,755,602	9,464,616	2,348,439	5,437,028	2,505,519
Lessor	926,459	83,600	671,165	116,051	55,643

The taxes paid by lessor companies were only 4.5 per cent of the total for all companies. In the majority of cases the terms of the lease agreement stipulate that the taxes be paid by the lessee company, and as many lessee or operating companies carried but one tax account for both properties, the Census Bureau did not segregate the total charged against the 2 companies. By reference to Table 105 it will be seen that Pennsylvania reported the bulk of the taxes paid by lessor companies, amounting to $878,438, or 94.8 per cent of the total for all lessor companies. In this state taxes were reported as levied on real and personal property, capital stock, and earnings.

Table 132 gives the total amount of taxes paid by operating companies, by states. The only decrease shown, that for Pennsylvania, was occasioned by a different division of the taxes between operating and lessor companies at the two censuses. One large company, which operated many leased properties, did not include the taxes paid on account of lessor companies in the 1907 operating report, while it did so include them in 1902. A combination of the amounts reported as paid for taxes by both operating and lessor companies in Pennsylvania for 1907 and 1902 indicates a substantial increase for the five-year period.

Only 26 states in 1907 and 14 states in 1902 imposed a tax on capital stock and bonds. It is possible that many small payments of incorporation fees, amounting in the aggregate to a considerable amount, have been included in the total shown for taxes on capital stock. Taxes on earnings (usually gross income) were levied in 33 states in 1907 and in 23 in 1902. The $2,505,519 reported by operating companies under the head of miscellaneous taxes in 1907 included payments for car licenses, pole taxes, paving assessments, business licenses, franchise and corporation taxes, and numerous other forms of special payments required by municipal, county, and state governments.

Some companies also regard the cost of special crossing policemen and of free city lighting as miscellaneous taxes, on the ground that any requirement by city authorities not necessary to the actual operation of the property is a compulsory expense and therefore a tax. Upon this assumption the value of all free electric service furnished municipalities by electric railways would be treated as taxes. The estimated amount of income lost because of such free lighting and power service was reported by railways engaged in the light and power business in 1907 as $33,697.

Ratio of taxes to gross income.—Table 131 shows the per cent ratio of taxes to gross income in 15 important states for 1907 and 1902.

TABLE 131.—*Per cent ratio of taxes to gross income of operating and lessor companies combined, selected states: 1907 and 1902.*

STATE.	PER CENT RATIO.	
	1907	1902
California	4.2	5.0
Connecticut	4.8	6.0
Illinois	5.0	5.9
Indiana	4.4	4.9
Kentucky	6.5	6.1
Louisiana	6.0	6.9
Maryland	7.7	8.2
Massachusetts	6.2	6.8
Michigan	3.5	3.5
Missouri	6.1	6.0
New Jersey	4.9	5.3
New York	4.7	5.6
Ohio	4.4	3.6
Pennsylvania	4.6	6.1
Tennessee	6.9	6.1

Of the selected states, Maryland shows the highest ratio of taxes to gross income in both 1907 and 1902, owing largely to the fact that the city of Baltimore lays a heavy tax on the gross receipts of its railways. Tennessee shows the next highest ratio in 1907, 6.9 per cent, followed by Kentucky, with 6.5 per cent. At the census of 1902 Louisiana and Massachusetts were next in order after Maryland. The taxes paid in 1907 by the 2 important railway companies in Memphis and Nashville, Tenn., and by the large company in Louisville, Ky., were very large and formed a high percentage of the gross incomes of these companies.

The states of California, Indiana, Michigan, and Ohio show a low ratio of taxes to income. In these states a large proportion of the railway business is done by the interurban lines, which are not so heavily taxed as are the companies operating wholly within the corporate limits of cities and towns.

Table 90, which gives the per cent distribution of the gross income of operating companies, shows that the per cent ratio of taxes to gross income was smaller in 1907 than in 1902, the percentages being, respectively, 4.6 and 5.2. By reference to Table 99 it will be seen that a decreased ratio is also shown for income Classes A, B, and D, and a constant ratio for Class E,

an increase appearing only in the case of Class C (income of $250,000 but less than $500,000). As these are all statistics of operating companies, it may be thought that the decreased ratio is due to a difference in the attribution of total taxes to the operating and lessor companies, respectively, in the two censuses. But as a matter of fact the per cent ratio of total taxes to gross income shows a similar decrease for operating and lessor companies combined, from 5.3 per cent in 1902 to 4.8 per cent in 1907, though this decrease is slightly less than that for operating companies alone. Table 131 shows that the decrease was fairly general among the selected states, 10 of them showing decreased percentages for 1907, 4 of them increased percentages, and 1 the same percentage for both years.

The statistical evidence seems conclusive, then, that there was a general and typical decrease in the ratio of taxes to gross income, and such a general decrease calls for explanation of an equally general character. Such an explanation is found in a consideration of the usual bases of taxation, in connection with a consideration of the increase in gross receipts between 1902 and 1907. Though the method of basing taxes on earnings has been increasingly used in recent years, by far the larger part of the taxes of street and electric railways is still levied on the basis of the real and personal property of the companies. Under these circumstances, taxes will not keep pace with gross income unless assessors are everywhere prompt to increase real and personal property valuations, as the gross earning power of the companies increases. The gross receipts of street and electric railways are shown by the statistics to have increased very greatly and to have reached an exceedingly high mark in 1907. It is highly improbable that real and personal property assessments have been increased in anything like the same proportion. The necessary effect of such a condition of things would be that which the statistics indicate—a decrease in the ratio of taxes to gross income. The decrease would be most marked wherever increased traffic is carried on lines already existing, rather than on extensions or additions, which would quickly find their place in the records of the assessors. It is therefore probable that an even greater decrease would have been shown for 1907 had not the increase of trackage between 1902 and 1907 exceeded the increase of traffic for the large companies of Classes A and B (see p. 86).

Interest.—The annual payments by street and electric railways to meet interest charges on their funded and floating debt, and on their real-estate mortgages amount to a large aggregate—$81,771,266 for 1907 and $46,462,470 for 1902, an increase during the five years of $35,308,796, or 76 per cent. Earlier tables of this chapter, which accompany the discussion of the income account, show for companies as a whole and by groups the interest charges of operating and lessor companies in their relation to gross income. In Chapter VI (p. 100) will be found a detailed analysis of the statistics relating to interest on funded debt, which is the principal item of the total interest charge. The following statement shows the interest paid by operating and lessor companies by character of debt:

Interest on funded and other debt of operating and lessor companies: 1907 and 1902.

CLASS OF COMPANY.	Census.	INTEREST.		
		Total.	On funded debt.	On floating debt and real-estate mortgages.
Total, all companies	1907	$81,771,266	$71,468,788	$10,302,478
	1902	46,462,470	43,578,961	2,883,509
Operating	1907	63,740,744	53,766,525	9,974,219
	1902	38,085,911	35,223,284	2,862,627
Lessor	1907	18,030,522	17,702,263	328,259
	1902	8,376,559	8,355,677	20,882

It should perhaps be explained that although the interest on bonds of leased companies is guaranteed by the lessee and often paid directly by the latter to the bondholders of the lessor company, the distinction between the interest accruing on the securities of the two classes of companies was preserved in the census statistics. In 1907 the interest payments on funded debt were divided between operating and lessor companies in the ratio of about 3 to 1 as compared with a ratio of over 4 to 1 in 1902.

Dividing the total amount reported in 1907 as interest on floating debt and on real-estate mortgages, practically all of it being interest on floating debt, by the amount of such debt reported, gives a quotient of 3.64, which is the statistical average rate of return. This average, however, can not be taken as expressing an average or typical rate of interest paid on such debts. Such debts are essentially unstable, the amount frequently fluctuating widely from month to month; and a large part of it represents advances between affiliated companies, on which no interest is charged. On the other hand, in some cases, as with the Pennsylvania companies, to which reference has been made, the amount paid included both nominal interest and brokerage, or commission, and the real rate was therefore very high.

Rent of leased lines and terminals.—The total for this item, when shown as a deduction from income, includes, principally, payments by operating companies for the use of track owned by nonoperating companies; but it also contains a considerable amount paid by operating companies for the use of track owned by other operating companies or by steam railroads. It excludes such rentals, however, in those cases in which the owners have not entirely relinquished the right of operation. In these cases the

rentals are counted in operating expenses, and not in fixed charges. It also excludes the rentals paid to the city by the railway companies in New York and Boston for the use of subways built and owned by the municipality, these rentals being counted in the "Miscellaneous deductions" from income.

The total paid by operating companies for the rent of leased lines and terminals amounted in 1907 to $48,022,596, an increase over the amount paid in 1902 of $22,504,371, or 88.2 per cent. Next to the interest on funded and other debt, this item constituted the largest fixed charge. By reference to Table 132 it will be seen that, although rentals for leased lines were paid in 1907 in 21 states, $39,137,695, or 81.5 per cent of the total, was reported from the North Atlantic states, while $7,885,834, or 16.4 per cent of the remainder, was reported by the companies in the North Central division, only $999,067, or 2.1 per cent of the total being reported by the other three divisions.

The largest payment for leased lines, $19,279,392, was reported for New York, and the next largest, $13,554,786, for Pennsylvania, the two constituting over two-thirds of the total for all states. In New York City the elevated, subway, and surface lines are practically all operated under lease by 3 companies; in Pennsylvania the city systems of Philadelphia and Pittsburg are each operated by 1 company; in Boston the railways are controlled by 3 companies; and in Providence, R. I., the system is operated by 1 company. In both Connecticut and New Jersey a large proportion of the railways are under the control of 1 company, partly through lease and partly as the result of a merger. In Norfolk, Va., New Orleans, La., and Cincinnati, Ohio, the city systems are operated under lease by 1 company. In Chicago there is also considerable leasing of surface lines. In Ohio and Indiana many of the railways required to form connecting systems of interurban lines were acquired by lease agreements. Table 183 shows the names and locations of the different individual companies and whether they were operating or lessor companies.

Miscellaneous deductions.—The rentals paid by the railway companies in New York and Boston for the use of the city subways formed roughly one-third of the total miscellaneous deductions from income in 1907. The remainder represents chiefly depreciation charges, sinking funds, and in a few cases, special payments not specified.

In the making of these minor accounts and in reporting them to the Census Bureau, the practice of the companies was so confused and lacking in uniformity that little statistical showing of the results can be made. Sinking funds, depreciation funds, and "reserves" were given varying interpretations, and were combined in varying ways. As a result it has been deemed impracticable to attempt any statistical discussion of these items, except in the case of the depreciation fund, for which the data are somewhat more complete and distinguishable than for the others.

Depreciation funds.—Depreciation funds are set apart—in the accounts of a company—as special funds from which to pay for the replacement of the physical equipment as it wears out or becomes obsolete. It is thus a provision by the company against an accruing "liability" of the company itself toward its plant, rather than a liability incurred once for all to persons outside the company; and the date of its final use is unknown and uncertain, as contrasted with the fixed and known date of the term of the company's debts. Depreciation and the best method of providing for it are matters that received little or no consideration in the early days of street railways. It was usual to say that the surplus account and the appreciation of properties through growth and expansion of traffic would take care of the depreciation. But with the electrification of the railways, with the rapid obsolescence of old forms of equipment and plant through changes in operative power, etc., and as an incident of consolidation with the attendant recapitalization, the problem of providing for depreciation has come to be one of increasing recognition and importance.

The object of a depreciation fund or account is to provide for the maintenance of original values and the replacement of equipment, ways, and structures, and all parts thereof, when their period of usefulness has run; or, in other words, to maintain the integrity of the property at all times. The essential point is that revenue should be charged with a proper sum to cover the deterioration in the value of wasting assets, and that the apportionment of this sum as between one year and another should be upon equitable lines.[1] The current repairs to machinery and structures necessary to maintain them in suitable condition is considered an operating expense that is incident to the regular operation of a road and is as properly a charge against operating income as is the cost of the materials and supplies consumed or the labor employed. But all machinery and structures are also in their own degree subject to wear and tear or decay that in time lowers their efficiency to a point where it is advisable to replace with new rather than to repair the old; and depreciation charges are to provide for such extraordinary expenditures made to maintain the property as a going concern at its original value and efficiency. Depreciation results not only from the gradual decay that is caused by "wear and tear," but also from the occasional obsolescence of plant or equipment that is caused by new processes, or inventions, or other changes in the industry. Thus it often happens that machinery has to be sent to the scrap pile long before its natural life has run.

It was thought that the substitution of electric power for animal or cable power would materially reduce operating expenses, but the percentage allowance for depreciation which once sufficed to main-

[1] See "Depreciation, Reserves, and Reserve Funds," Lawrence R. Dicksee, London, 1907.

tain a property is no longer sufficient. With the introduction of electricity have come larger cars and higher speeds, which in turn have required heavier rails and better roadbeds, and enlarged and improved power plants. All the elements in the car operation are now on a larger scale than formerly, and those which involve wear and tear perhaps more so than others.

The temptation to distribute net earnings as dividends and to trust to the future to take care of future requirements has often prevailed over the more conservative policy of insuring against every phase of deterioration of the property. Naturally the elimination from the cost of maintenance of any part of the cost of maintaining the physical property at its original value and efficiency results in making the cost of maintenance appear too low.

The returns to the Census Bureau are not in a form to show, in all cases, whether a charge or allowance for depreciation has been made. Such an allowance for depreciation may be made in one of several ways. For example:

(1) By charging at stated periods a percentage or fixed amount to the proper items of operating expense, though the expenditure is not actually incurred.

(2) By charging a lump sum yearly, to be deducted from income, before arriving at the net income for the year.

(3) By charging off a part of the net income or surplus for the year which is to be carried to the balance sheet, so that the income-account surplus and the balance-sheet surplus vary by the amount of the allowance.

The practice of the different companies in providing for depreciation is not uniform, and only when the second method is used is it possible to determine from the census reports whether allowance has been made for depreciation. Many companies carry a portion of their net earnings to surplus, which in some measure takes the place of a depreciation fund.

Depreciation accounts, designated as replacement accounts, are generally carried for the several classes of property which are subject to depreciation, such as cars and electric locomotives, electric equipment of cars, power-plant equipment, electric generators and substation equipment, track and electric-line construction, buildings and fixtures, etc.

The carrying of depreciation accounts requires that a line should be drawn between charges to maintenance and those to depreciation reserve. Replacements of parts of short life, such as wheels which often wear out after a few months' service, brake shoes, the rewinding of motors, the painting of cars, etc., are clearly items chargeable to maintenance. All repairs which keep a car in service are properly chargeable to maintenance, but at some point in the life of a car the continuance of repairs ceases to be profitable and the car should be scrapped or sold. The cost of a new car, less the amount, if any, realized on the old one, then becomes an item for the depreciation account.

It is good financial practice for the company to charge every year to the depreciation account a fixed and uniform percentage of the purchase price of the equipment rather than to attempt to determine and charge the actual deterioration of the successive years. That this annual percentage rate depends upon the average life of the equipment is obvious, but there is much discussion among technical experts as to what specific rates for the various forms of equipment should be.

The following statement of rates of depreciation may be taken as representing the judgment of experts in this matter:

Rates of depreciation.[1]

ITEM.	ESTIMATED PER CENT OF DEPRECIATION.		
	Adopted by Chicago Union Traction Co.	Adopted by Third Avenue Railroad Co., New York.[2]	Adopted for adjusted accounts of Milwaukee Electric Railway and Light Co.
Track and roadway:			
Track, ties, bonding, etc.	7.75	8 to 9	7.5
Special work and installation	7.75	.....	8.0
Rolling stock:			
Bodies and trucks	5.00	5	5.0
Electrical equipment	6.66 to 8.50	.....	7.5
Fenders, registers, lights, clocks, etc.	.....	.....	10.0
Overhead system:			
Poles	[3] 5.00	.....	5.0
Wiring, fittings, etc.	10.00 to 14.00	.....	10.0
Underground system:			
Conduits	.....	3	2.0
Feeders, cables, etc.	.....	3	4.0
Power-plant equipment:			
Engines	6.66	4	5.0
Boilers	6.66	.....	7.5
Heaters, economizers, pumps, etc.	6.66	.....	7.5
Piping	6.66	.....	5.0
Traveling cranes	6.66	.....	5.0
Belting, shafting, ropes, etc.	6.66	.....	5.0
Coal and ash conveyors and hoist wagons	6.66	.....	5.0
Dynamos	6.66	.....	5.0
Generating apparatus	6.66	.....	5.0
Storage battery	6.66	.....	10.0
Switchboard and cables	6.66	.....	5.0
Shop tools and machinery	5.00	.....	7.5
Buildings and improvements	2.00	2	2.0

[1] From table submitted in the case involving the rates of fare in the city of Milwaukee, Electric Railway Journal, April 10, 1909.
[2] Rates quoted in the franchise-tax case.
[3] Iron poles.

In the census tables the deductions from income on account of depreciation, when charged as a lump sum yearly, are included under the head of "Miscellaneous deductions" from income. Of the total of $6,575,774 reported under the head of miscellaneous deductions, the sum of $2,397,250 represents charges for depreciation, specifically reported as such, or credits to depreciation and sinking fund combined.

The following statement shows, by geographic divisions, the number of companies thus reporting depreciation allowances at the census of 1907 and the amounts so reported in connection with the figures reported for cost of construction and equipment:

Depreciation deductions and cost of construction and equipment, for companies reporting same: 1907.

DIVISION.	COMPANIES REPORTING DEPRECIATION DEDUCTIONS.			
	Number of companies.	Cost of construction and equipment.	Charges for depreciation.	
			Amount.	Per cent of cost of construction and equipment.
United States	26	$271,693,220	$2,397,250	0.88
North Atlantic	2	23,264,954	115,754	0.50
South Atlantic	3	5,487,174	34,535	0.63
North Central	16	217,295,712	1,988,570	0.92
South Central	2	9,331,938	85,883	0.92
Western	3	16,313,442	172,508	1.06

The amounts and ratios of allowances for depreciation here shown are manifestly far from the actual ones, as they are also far from proper ones. Theer are several obvious reasons for the defects in the statistics, both as to their completeness and as to their comparability. First of all, the amounts here shown for depreciation represent only amounts that were accounted for by the companies in the second of the three bookkeeping methods mentioned above. Secondly, the amounts of depreciation charges are shown in relation to the costs of all the properties of the company, whereas they were undoubtedly, in many cases, limited to specific purposes, as, for example, to specific forms of equipment. And finally, it must be recalled that the census term "cost of construction and equipment" covers franchises, "good will," etc., as well as physical properties, and all at book values rather than at the figures of actual costs.

TABLE 132.—DEDUCTIONS FROM INCOME (TAXES AND FIXED CHARGES), BY ACCOUNTS, OF OPERATING COMPANIES, BY STATES AND GEOGRAPHIC DIVISIONS: 1907 AND 1902.

STATE OR TERRITORY.	Census.	Number of companies.	Aggregate.	Taxes.	INTEREST.				Rent of leased lines and terminals.	Miscellaneous deductions.
					Total.	On funded debt.	On real-estate mortgages.	On floating debt.		
United States	1907	[1] 939	$138,094,716	$19,755,602	$63,740,744	$53,706,525	$140,875	$9,824,344	$48,022,596	$6,575,774
	1902	[2] 799	77,595,053	13,078,809	38,085,911	35,223,284	93,078	2,769,549	25,518,225	912,018
North Atlantic division	1907	365	71,907,673	8,781,893	20,526,735	15,517,003	96,314	4,913,418	39,137,695	3,461,350
	1902	350	43,101,611	7,472,505	16,845,309	15,227,616	61,043	1,556,650	18,316,397	467,400
Maine	1907	17	469,277	43,383	425,894	407,021	2,250	16,623	.....	.....
	1902	19	337,050	29,704	301,772	266,969	667	34,136	4,000	1,574
New Hampshire	1907	16	112,510	15,919	96,591	80,515	.....	16,076	.....	.....
	1902	7	83,786	7,822	47,390	39,550	.....	7,840	28,574	.....
Vermont	1907	10	117,601	9,795	107,451	102,737	.....	4,714	.....	355
	1902	9	45,089	4,427	40,602	36,721	.....	3,941	.....	.....
Massachusetts	1907	62	7,061,339	1,911,510	2,610,927	1,908,577	10,975	691,375	2,145,639	393,263
	1902	74	5,108,619	1,609,406	1,524,248	1,071,242	712	452,294	1,907,540	7,335
Rhode Island	1907	5	1,538,793	292,145	185,006	83,225	.....	101,781	1,054,080	7,562
	1902	7	351,767	140,814	210,953	205,360	.....	5,593	.....	.....
Connecticut	1907	8	2,154,647	359,512	209,608	124,378	75	85,155	831,650	753,877
	1902	21	1,128,319	243,393	757,580	732,108	.....	25,472	108,046	19,300
New York	1907	101	35,354,087	4,207,725	9,730,805	7,146,932	68,857	2,515,016	19,279,392	2,046,165
	1902	96	19,552,955	3,428,461	10,383,127	9,528,743	30,746	773,638	5,719,589	71,778
New Jersey	1907	24	5,755,396	627,510	2,840,704	2,600,859	7,908	231,937	2,272,148	15,034
	1902	25	3,625,740	431,912	1,573,411	1,476,383	10,114	86,914	1,586,217	34,200
Pennsylvania	1907	122	19,344,023	1,224,394	4,319,740	3,062,759	6,249	1,250,741	13,554,786	245,094
	1902	98	12,868,286	1,576,476	2,056,166	1,870,540	18,804	166,822	8,902,431	333,213
South Atlantic division	1907	100	7,998,784	1,548,424	5,982,598	5,279,792	2,350	700,456	345,370	122,392
	1902	75	5,260,379	806,718	4,437,607	4,289,254	5,850	142,503	2,695	13,359
Delaware	1907	4	203,623	15,333	143,255	47,000	900	95,355	43,200	1,835
	1902	3	77,439	13,973	63,466	39,000	2,250	22,216	.....	.....
Maryland and District of Columbia	1907	19	3,708,360	778,544	2,914,375	2,694,780	.....	219,595	5,500	9,881
	1902	18	3,237,193	562,085	2,671,533	2,605,132	.....	66,401	1,975	1,000
Virginia	1907	22	1,287,931	240,169	756,190	710,064	250	45,876	239,375	52,197
	1902	16	547,730	46,845	490,484	467,662	3,600	19,222	.....	10,401
West Virginia	1907	15	743,200	93,493	639,756	508,727	.....	131,029	4,795	5,156
	1902	8	265,842	28,030	237,812	230,959	.....	6,853	.....	.....
North Carolina	1907	11	353,806	39,058	220,922	160,615	.....	60,307	52,500	41,326
	1902	7	98,993	10,791	87,219	80,310	.....	6,909	.....	983
South Carolina	1907	7	390,713	42,007	340,706	238,050	.....	102,656	.....	8,000
	1902	7	203,196	21,109	180,392	161,259	.....	19,133	720	975
Georgia	1907	12	1,124,989	290,235	830,757	807,568	1,200	21,989	.....	3,997
	1902	10	755,207	110,846	644,361	642,712	.....	1,649	.....	.....
Florida	1907	10	186,222	49,585	136,637	112,988	.....	23,649	.....	.....
	1902	6	74,779	12,439	62,340	62,220	.....	120	.....	.....

[1] Exclusive of 6 companies which failed to furnish this information.
[2] Exclusive of 18 companies which failed to furnish this information.

TABLE 132.—DEDUCTIONS FROM INCOME (TAXES AND FIXED CHARGES), BY ACCOUNTS, OF OPERATING COMPANIES, BY STATES AND GEOGRAPHIC DIVISIONS: 1907 AND 1902—Continued.

STATE OR TERRITORY.	Census.	Number of companies.	Aggregate.	Taxes.	INTEREST. Total.	On funded debt.	On real-estate mortgages.	On floating debt.	Rent of leased lines and terminals.	Miscellaneous deductions.
North Central division	1907	293	$39,803,747	$6,406,052	$23,262,652	$20,802,779	$49,211	$2,410,662	$7,885,834	$2,249,209
	1902	235	22,968,954	3,521,690	11,831,802	10,983,675	23,121	825,006	7,195,871	419,531
Ohio	1907	73	9,215,583	1,387,052	4,612,432	3,887,376	37,710	687,346	3,155,380	60,719
	1902	62	4,137,866	601,142	2,457,584	2,295,268	3,280	159,036	1,066,036	12,504
Indiana	1907	33	4,477,535	499,273	1,883,272	1,776,758	600	105,914	1,966,943	128,047
	1902	26	1,201,297	185,014	984,391	952,219	.....	32,172	.....	31,892
Illinois	1907	70	10,668,510	2,018,189	5,907,635	5,434,234	10,745	462,656	2,648,012	94,674
	1902	48	8,453,191	1,488,359	3,037,830	2,786,563	11,530	239,737	3,875,007	51,995
Michigan	1907	24	2,867,083	386,514	2,445,809	2,244,763	108	200,938	.....	34,760
	1902	24	1,788,797	228,538	1,547,772	1,501,111	.....	46,661	.....	12,487
Wisconsin	1907	20	2,180,929	325,966	1,380,206	1,292,035	.....	88,171	.....	474,757
	1902	17	1,081,160	150,059	646,194	624,205	6,634	15,355	.....	284,907
Minnesota	1907	5	2,128,156	415,965	1,122,138	1,059,325	.....	62,813	.....	590,053
	1902	5	1,027,121	131,128	870,038	864,422	.....	5,616	24,064	1,891
Iowa	1907	24	894,434	99,582	749,454	660,785	.....	88,669	2,913	42,485
	1902	22	429,373	54,115	353,118	344,839	.....	8,279	.....	22,140
Missouri	1907	14	6,150,063	1,098,222	4,490,780	3,798,020	.....	692,760	14,400	546,661
	1902	16	4,635,401	646,682	1,756,840	1,439,798	1,677	315,365	2,230,164	1,715
North and South Dakota[1]	1907	5	19,993	2,069	17,761	16,000	.....	1,761	.....	163
Nebraska	1907	8	895,573	139,398	390,017	386,875	48	3,094	97,840	208,318
	1902	4	150,297	28,252	122,045	119,750	.....	2,295	.....	.....
Kansas	1907	17	305,888	33,822	263,148	246,608	.....	16,540	346	8,572
	1902	11	64,451	8,401	56,050	55,500	.....	550	.....	.....
South Central division	1907	90	6,959,418	1,378,786	5,059,320	4,421,015	.....	638,305	320,449	200,863
	1902	66	2,754,169	577,184	2,165,596	2,000,014	400	165,182	.....	11,389
Kentucky	1907	13	1,109,233	313,328	789,097	756,646	.....	32,451	.....	6,808
	1902	12	777,433	177,775	598,594	591,672	.....	6,922	.....	1,064
Tennessee	1907	9	1,418,575	310,140	1,040,975	977,083	.....	63,892	.....	67,460
	1902	8	595,356	113,573	478,473	441,222	.....	37,251	.....	3,310
Alabama	1907	10	988,048	178,373	741,292	692,487	.....	48,805	.....	68,383
	1902	9	384,762	37,047	347,330	254,653	.....	92,677	.....	385
Mississippi	1907	8	247,833	31,890	209,121	178,810	.....	30,311	.....	6,822
	1902	5	38,684	4,501	34,183	32,175	.....	2,008	.....	.....
Louisiana	1907	11	1,890,680	359,837	1,173,857	1,021,270	.....	152,587	320,449	36,537
	1902	8	690,380	200,156	483,594	476,530	400	6,664	.....	6,630
Arkansas	1907	8	268,537	30,817	232,720	212,023	.....	20,697	.....	.....
	1902	7	68,071	7,213	60,858	50,850	.....	10,008	.....	.....
Oklahoma[2]	1907	8	100,230	7,732	86,645	85,200	.....	1,445	.....	14,853
Texas	1907	23	932,282	146,669	785,613	496,896	.....	288,717	.....	.....
	1902	17	199,483	36,919	162,564	152,912	.....	9,652	.....	.....
Western division	1907	91	11,425,094	1,640,447	8,909,439	7,745,936	2,000	1,161,503	333,248	541,960
	1902	67	3,509,940	700,802	2,805,537	2,722,725	2,664	80,148	3,262	339
Montana	1907	5	120,851	22,519	79,638	77,500	.....	2,138	.....	18,694
	1902	5	74,633	13,975	60,658	58,375	.....	2,283	.....	.....
Colorado	1907	11	1,273,024	148,462	1,033,840	981,523	.....	52,317	.....	90,722
	1902	7	536,005	78,264	454,479	441,645	.....	12,834	3,262	.....
Washington	1907	14	1,788,314	388,322	1,281,023	890,714	.....	390,309	117,417	1,552
	1902	8	463,101	78,239	384,862	374,163	.....	10,699	.....	.....
Oregon	1907	8	992,748	117,548	875,200	861,983	2,000	11,217	.....	.....
	1902	6	146,519	17,622	128,897	128,719	.....	178	.....	.....
California	1907	41	6,732,705	896,273	5,189,609	4,555,559	.....	634,050	215,831	430,992
	1902	35	2,112,050	495,179	1,617,550	1,579,043	.....	38,507	.....	230
All other Western states and territories[3]	1907	12	517,452	67,323	450,129	378,657	.....	71,472	.....	.....
	1902	6	176,723	17,523	159,091	140,780	2,664	15,647	.....	109
Hawaii and Porto Rico[4]	1907	4	184,302	29,381	110,171	93,159	.....	17,012	.....	44,750
	1902	5	106,015	10,987	68,018	66,305	.....	2,313	.....	20,410

[1] No company reported in 1902 for North Dakota, and the 1 company in South Dakota in 1902 failed to furnish this information.
[2] No company reported in 1902.
[3] Includes states and territories as follows: 1907—Arizona, 4; Idaho, 2; Nevada, 1; New Mexico, 2; Utah, 3. 1902—Arizona, 1; Idaho, 1; New Mexico, 1; Utah, 3.
[4] Includes companies as follows: 1907—Hawaii, 1; Porto Rico, 3. 1902—Hawaii, 3; Porto Rico, 2.

V.

GENERAL RESULTS OF OPERATION.

The standards for measurement of prosperity or of operative conditions or efficiency selected for treatment in this section are the average operating earnings and expenses and the net earnings per mile of track, per car mile, and per passenger carried. Obviously no one of these standards is by itself entirely satisfactory as a criterion of the results of operation; they are of greatest efficiency when applied to the statistics of a single company, so that the different methods and conditions under which the company is operated can be given due weight. The results obtained by applying these standards to the totals for all classes of companies, operated under various and varying conditions, should not be accepted as reflecting the actual conditions for any single company. In regard to the general trend of railway transactions, however, such averages convey a better idea than can be obtained from a consideration of large aggregates. Moreover, the differences in the various averages as shown for the classes of companies, where classifications are made, possess the greatest significance that such statistics can be made to bear, as measuring the amount and character and "movement" of the various influences that condition railway management and success.

TABLE 133.—GENERAL RESULTS OF OPERATION OF COMPANIES, CLASSIFIED ACCORDING TO INCOME FROM RAILWAY OPERATIONS: 1907 AND 1902.

UNIT.	Census.	Total, all companies.	CLASSIFICATION GROUP.				
			$1,000,000 and over. (A)	$500,000 but less than $1,000,000. (B)	$250,000 but less than $500,000. (C)	$100,000 but less than $250,000. (D)	Less than $100,000. (E)
Number of companies	1907	[1] 939	76	50	80	182	551
	1902	[2] 799	44	28	53	112	562
Per cent ratio of operating expenses to operating earnings	1907	60.1	58.4	60.9	63.1	64.1	72.1
	1902	57.5	54.8	57.7	59.9	64.3	70.8
Operating earnings per mile of track, total	1907	$12,268.00	$19,287.00	$8,345.00	$7,636.00	$6,467.00	$4,152.00
	1902	11,152.00	19,935.00	9,651.00	7,166.00	5,812.00	3,663.00
Operating earnings per mile of track, exclusive of income from sale of current	1907	11,678.00	18,798.00	7,838.00	6,947.00	5,588.00	3,548.00
	1902	10,805.00	19,631.00	9,282.00	6,816.00	5,376.00	3,241.00
Operating earnings per car mile, total	1907	0.2597	0.2625	0.2481	0.2688	0.2634	0.2300
	1902	0.2187	0.2292	0.2112	0.2130	0.1968	0.1812
Operating earnings per car mile, exclusive of income from sale of current	1907	0.2472	0.2558	0.2330	0.2446	0.2276	0.1965
	1902	0.2119	0.2263	0.2032	0.2026	0.1820	0.1603
Operating expenses per car mile, total	1907	0.1561	0.1532	0.1510	0.1697	0.1987	0.1658
	1902	0.1257	0.1255	0.1219	0.1276	0.1266	0.1284
Power-plant expenses per car mile	1907	0.0273	0.0240	0.0287	0.0333	0.0368	0.0445
	1902	0.0204	0.0179	0.0193	0.0208	0.0252	0.0327
Expenses for operation of cars per car mile	1907	0.0624	0.0647	0.0587	0.0603	0.0562	0.0522
	1902	0.0552	0.0583	0.0535	0.0524	0.0493	0.0439
Passenger earnings per fare passenger	1907	0.0515	0.0499	0.0557	0.0585	0.0565	0.0554
	1902	0.0494	0.0484	0.0498	0.0540	0.0531	0.0514
Operating expenses per fare passenger	1907	0.0339	0.0308	0.0381	0.0435	0.0450	0.0500
	1902	0.0301	0.0274	0.0305	0.0356	0.0384	0.0436
Net earnings per mile of track	1907	4,895.00	8,032.00	3,265.00	2,817.00	2,324.00	1,159.00
	1902	4,741.00	9,020.00	4,082.00	2,874.00	2,073.00	1,069.00

[1] Exclusive of 6 companies which failed to furnish financial data.

[2] Exclusive of 18 companies which failed to furnish financial data.

A mile of track, as a unit of measure, expresses the foundation upon which all railway business rests, and is perhaps the best unit of comparison for all general statistics. The advantages of the car-hour unit over the car-mile unit have been considered elsewhere,[1] but although the former unit was employed by a larger number of companies in 1907 than in 1902, it is not yet used by all of the companies or even by a sufficient number to make it available as a basis for general comparative statistics. The car mile, on the other hand, is a unit employed by all street and electric railways. The fare-passenger unit is also an available one, and has been used as a basis for comparisons for all roads doing a passenger business. It must be borne in mind that the car-mile unit is complex, being made up of two units, one of which is regarded as a unit of capacity and the other of distance. Hence the unit can not be a constant one, since, while the element of distance is constant, the other, that of capacity, is continually varying. Indeed, the variation of this element is one of the changes that the car-mile figures are designed to show. Capacity, in its turn, depends obviously upon the size and type of the car, upon its condition, and, as might be maintained from one point of view, upon its speed. In all these respects the car of 1907 is much changed from the car of 1902, and the effect is apparent when earnings and expenses are considered on a car-mile basis.

[1] See p. 88.

Similarly, there are many things that have to be kept in mind when making comparisons on the basis of the number of fare passengers carried. Thus a change in the policy of a railway in granting free transfers may mean a change in the number of fare passengers carried, without a corresponding change in the traffic statistics. Again, the fare-passenger unit ignores the factor of length of ride; or, perhaps it may better be said that it assumes a uniform average length of ride for all companies and all times. This assumption is only roughly true for strictly urban traffic, while as between urban and rural or interurban traffic it is very far from true. The development of interurban lines has introduced into the statistics a large and growing number of long-trip passengers. In some cases these long-trip passengers pay their fares by "zones," a ticket or fare being collected at the beginning of each "zone" of travel. In such cases the "passenger" as a unit is not far different from the passenger of the urban statistics, though representing a distance traveled that is undoubtedly above the average. But it frequently happens that interurban passengers are carried long distances on a single ticket, in the same way as on the steam railroads. The result is that such passengers—though counted by the "head" or by the tickets sold them, equaling a varying number of urban passengers—lessen the number of "passengers" and increase all resultant averages.

TABLE 134.—GENERAL RESULTS OF OPERATION OF COMPANIES WITH AND WITHOUT COMMERCIAL LIGHTING, AND OF PART-TIME COMPANIES: 1907 AND 1902.

UNIT.	TOTAL, ALL COMPANIES.		CLASSIFICATION GROUP.					
			Without commercial lighting.[1]		With commercial lighting.		Part-time.	
	1907	1902	1907	1902	1907	1902	1907	1902
Number of companies	[2]939	[3]799	709	630	[4]175	112	55	57
Per cent ratio of operating expenses to operating earnings	60.1	57.5	60.0	57.4	60.3	58.1	71.8	58.1
Operating earnings per mile of track, total	$12,268.00	$11,152.00	$13,178.00	$11,794.00	$10,022.00	$8,978.00	$1,558.00	$2,978.00
Operating earnings per mile of track, exclusive of income from sale of current	11,678.00	10,805.00	13,045.00	11,731.00	7,620.00	6,358.00	1,485.00	2,904.00
Operating earnings per car mile, total	0.2597	0.2187	0.2519	0.2157	0.3085	0.2597	0.2361	0.1901
Operating earnings per car mile, exclusive of income from sale of current	0.2472	0.2119	0.2493	0.2145	0.2346	0.1839	0.2250	0.1854
Operating expenses per car mile, total	0.1561	0.1257	0.1512	0.1239	0.1859	0.1509	0.1695	0.1105
Power-plant expenses per car mile	0.0273	0.0204	0.0260	0.0196	0.0345	0.0293	0.0531	0.0250
Expenses for operation of cars per car mile	0.0624	0.0552	0.0631	0.0560	0.0586	0.0478	0.0566	0.0410
Passenger earnings per fare passenger	0.0515	0.0494	0.0510	0.0493	0.0542	0.0493	0.0919	0.0621
Operating expenses per fare passenger	0.0339	0.0301	0.0321	0.0292	0.0455	0.0420	0.0729	0.0381
Net earnings per mile of track	4,895.00	4,741.00	5,268.00	5,022.00	3,983.00	3,761.00	439.00	1,247.00

[1] Includes all full-time operating companies not engaged in regular light and power business, without regard to kind of power used.
[2] Exclusive of 6 companies which failed to furnish financial data.
[3] Exclusive of 18 companies which failed to furnish financial data.
[4] Exclusive of 2 part-time companies.

A principal disturbing factor in all comparisons, based upon the total income or the total expenses, is the inclusion of the income and expenses incident to the operation of electric light and power plants. As previously explained, there is an increasing tendency among railway companies to enter the field formerly occupied exclusively by the central light and power stations. This new branch of the industry necessarily increases the proportion of income and expense that is not identified with the operation of the road, and therefore vitiates, to a certain extent, averages based on the miles of track, the car mile, or the passengers carried. If the proportion of the total income derived from the sale of current and the proportion of the total expenses incident to the generation of such current had remained unchanged in the interval between 1902 and 1907, the averages for the different years would at least be based on similar factors and would hence indicate the changes. This, however, is not the case, because the income from the sale of current formed only 3.1 per cent of the total operating earnings reported for 1902 as against 4.8 per cent for 1907. Though these percentages are small, the amounts involved are large and their exclusion has a decided effect upon the calculation of average earnings per mile of track and per car mile. Thus, as may be calculated from the statistics in Table 133, the exclusion of income from sale of current results in reducing the figure for earnings per mile of track by $590 in 1907 as compared with $347 in 1902; and the figure for earnings per car mile by 1.25 cents in 1907 as compared with seven-tenths of 1 cent in 1902.

The operating earnings per unit, exclusive of income from sale of current, as given in Table 133, should not be confused with the averages for the group of companies classified as "Without commercial lighting" in Table 134. In computing the former averages, all income derived from the sale of current has been eliminated, while the total upon which the latter averages are based included a considerable amount of income derived from incidental sales of current by companies which could not be considered as engaged in regular light and power business.

TABLE 135.—GENERAL RESULTS OF OPERATION OF COMPANIES, CLASSIFIED ACCORDING TO KIND OF SYSTEM AND CHARACTER OF SERVICE: 1907.

UNIT.	Total, all companies.	CLASSIFICATION GROUP.				
		Kind of system.		Character of service.		
		Electric elevated and subway railways.[1]	Electric surface railways.[2]	Selected interurban lines.	Selected small urban roads.	All other railways.
Number of companies	[3]939	6	933	50	100	789
Per cent ratio of operating expenses to operating earnings	60.1	44.7	61.5	58.0	80.7	60.2
Operating earnings per mile of track, total	$12,268.00	$80,727.00	$11,414.00	$5,237.00	$2,509.00	$13,863.00
Operating earnings per mile of track, exclusive of income from sale of current	11,078.00	80,471.00	10,821.00	5,020.00	2,502.00	13,188.00
Operating earnings per car mile, total	0.2597	0.2358	0.2620	0.2728	0.1653	0.2593
Operating earnings per car mile, exclusive of income from sale of current	0.2472	0.2351	0.2484	0.2614	0.1648	0.2467
Operating expenses per car mile, total	0.1561	0.1053	0.1610	0.1581	0.1334	0.1560
Power-plant expenses per car mile	0.0273	0.0230	0.0277	0.0359	0.0351	0.0267
Expenses for operation of cars per car mile	0.0024	0.0405	0.0046	0.0545	0.0506	0.0031
Passenger earnings per fare passenger	0.0515	0.0497	0.0517	0.0840	0.0527	0.0501
Operating expenses per fare passenger	0.0339	0.0238	0.0348	0.0557	0.0464	0.0329
Net earnings per mile of track	4,895.00	44,073.00	4,400.00	2,201.00	484.00	5,520.00

[1] Exclusive of the mixed elevated, subway, and surface systems in Boston, Mass., and Philadelphia, Pa.
[2] Includes the statistics for the few railways not operated by electricity.
[3] Exclusive of 6 companies which failed to furnish financial data.

Earnings per mile of track.—The averages based on totals from which earnings from the sale of current are excluded are undoubtedly the correct ones to be associated with the operation of the railways. On this basis the operating earnings per mile of track for 1907 show a substantial increase over those for 1902, though this increase is not general. In the classification according to size of companies the Classes A and B, representing the largest companies, show a decided decrease in the earnings per mile of track, while the three classes representing smaller companies show an increase. The amounts of these increases and decreases are shown in Table 136, in which the distinction is also made between total operating earnings of the companies and their operating earnings, exclusive of income from the sale of current.

The decrease in earnings per mile of track shown for Classes A and B is due primarily to the proportionately large increase in track. The trackage reported by companies in these classes in 1907 was 87.7 per cent greater than the trackage reported by companies of the same income classes in 1902, compared with an increase of only 74.8 per cent in earnings, exclusive of sale of current. This great increase in trackage is most marked for Class B, rising to 106.2 per cent, with an increase in earnings, exclusive of sale of current, of 74.1 per cent. The extension of trackage falling within the statistics of these classes was larger in districts of low-traffic density. The largest interurban lines, many of which were new companies in 1907, fall in Classes A and B.

It should be remembered also that Classes A and B include those large companies reporting deficits (discussed on p. 123), whose earnings constituted about 16 per cent of the earnings of all companies.

It is to be noted that these comparisons are comparisons of classes rather than of companies. A detailed study would show that many companies which reported at both censuses and are included in Class A or B for both years show increased earnings per mile of track.

TABLE 136.—*Average earnings, expenses, and net earnings per mile of track, of companies, classified according to income from railway operations: 1907 and 1902.*

CLASSIFICATION GROUP.	1907	1902	Increase.	Decrease.
Total, all companies:				
Operating earnings, total	$12,268	$11,152	$1,116	.....
Operating earnings, exclusive of income from sale of current	11,078	10,805	873	.....
Operating expenses	7,372	6,411	961	.....
Net earnings	4,895	4,741	154	.....
Class A:				
Operating earnings, total	19,287	19,935	.....	$648
Operating earnings, exclusive of income from sale of current	18,798	19,681	.....	883
Operating expenses	11,256	10,915	341	.....
Net earnings	8,032	9,020	.....	988
Class B:				
Operating earnings, total	8,345	9,651	.....	1,306
Operating earnings, exclusive of income from sale of current	7,838	9,282	.....	1,444
Operating expenses	5,080	5,570	.....	490
Net earnings	3,265	4,082	.....	817
Class C:				
Operating earnings, total	7,636	7,166	470	.....
Operating earnings, exclusive of income from sale of current	6,947	6,816	131	.....
Operating expenses	4,819	4,292	527	.....
Net earnings	2,817	2,874	.....	57
Class D:				
Operating earnings, total	6,467	5,812	655	.....
Operating earnings, exclusive of income from sale of current	5,588	5,376	212	.....
Operating expenses	4,143	3,739	404	.....
Net earnings	2,324	2,073	251	.....
Class E:				
Operating earnings, total	4,152	3,663	489	.....
Operating earnings, exclusive of income from sale of current	3,548	3,241	307	.....
Operating expenses	2,993	2,595	398	.....
Net earnings	1,159	1,069	90	.....

Of the 6 elevated and subway companies for which average earnings are shown in Table 135, 5 are included in Class A and 1 in Class B, and as the earnings and expenses per mile of track are very large for these companies, they necessarily have a strongly marked effect on the averages for those classes. The group of "Electric elevated and subway railways" is made up of the elevated and subway systems of New York and Chicago, on which the traffic is very dense, and which, as compared with other systems, have proportionately

fewer miles of track. The result is that the average earnings per mile of track for the group ($80,727) are much larger than for any of the other groups of companies shown in Table 135. Consolidations, extensions, the introduction of subways, and other changes render it impossible to make a direct comparison of the statistics for the same companies in 1907 and 1902. The 5 steam and electric elevated roads for which separate totals were given at the earlier census are, however, included in the group of elevated and subway systems for 1907, which, in addition, includes the Brooklyn Union Elevated Railroad. With this exception, virtually the same systems are included in the two groups, and the figures for both are therefore presented in Table 137.

TABLE 137.—*General results of operation of elevated and subway railways: 1907 and 1902.*

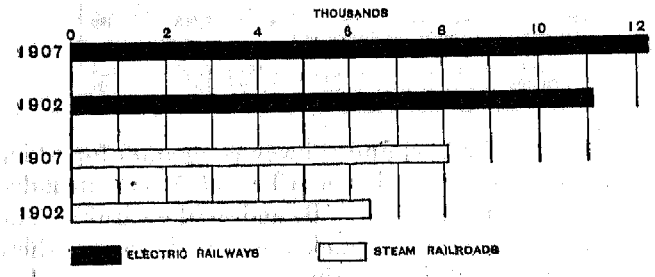
UNIT.	Electric elevated and subway railways: 1907.[1]	Steam and electric elevated railways: 1902.[2]
Number of companies	6	5
Per cent ratio of operating expenses to earnings	44.7	49.7
Operating earnings per mile of track	$80,727.00	$71,889.00
Operating earnings per car mile	0.2358	0.1900
Operating expenses per car mile, total	0.1053	0.0975
Power-plant expenses per car mile	0.0230	0.0232
Expenses for operation of cars per car mile	0.0405	0.0448
Passenger earnings per fare passenger	0.0497	0.0508
Operating expenses per fare passenger	0.0238	0.0259
Net earnings per mile of track	44,673.00	36,151.00

[1] Includes Interborough Rapid Transit Co. and Brooklyn Union Elevated R. R. Co., in New York, N. Y., and South Side Elevated R. R. Co., Northwestern Elevated R. R. Co., Chicago, and Oak Park Elevated R. R. Co., and Metropolitan West Side Elevated Ry. Co., in Chicago, Ill.; but does not include the mixed elevated, subway, and surface systems in Boston, Mass., and Philadelphia, Pa.

[2] Includes Manhattan Ry. Co., in New York, N. Y., and Northwestern Elevated R. R. Co., South Side Elevated R. R. Co., Metropolitan West Side Elevated Ry. Co., and Lake Street Elevated R. R. Co., in Chicago, Ill.; but does not include the mixed elevated, subway, and surface system in Boston, Mass.

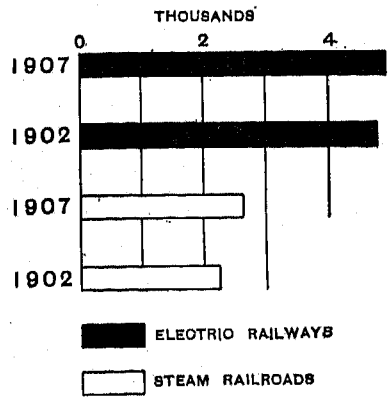
While, as suggested, the inclusion of another railway in the statistics for 1907, the introduction of the subway in New York City, and other changes necessarily affect the financial returns for that year as compared with those for 1902, the averages roughly indicate the conditions for this type of railways in New York City and Chicago during the two census years.

DIAGRAM 5.—*Operating earnings per mile of track, electric railways and steam railroads: 1907 and 1902.*



Only slight changes are shown in the majority of the averages in Table 137, but there was a decided decrease in the ratio of operating expenses to earnings and decided increases in the operating and the net earnings per mile of track.

DIAGRAM 6.—*Net earnings per mile of track, electric railways and steam railroads: 1907 and 1902.*



The freight and express business is virtually a new department of activity for street and electric railways. The proportion between the expenses incident to this new branch of activity and the income derived from it can not be determined, but the service has added somewhat to operating earnings and should be kept in mind in considering all averages in which it has exercised an influence.

TABLE 138.—*Combined freight and express earnings per mile of track, by groups of companies: 1907 and 1902.*

CLASSIFICATION GROUP.	1907	1902	Increase.
Total, all companies	$199	$65	$134
Income from railway operations:			
A. $1,000,000 and over	159	37	122
B. $500,000 but less than $1,000,000	265	34	231
C. $250,000 but less than $500,000	301	119	182
D. $100,000 but less than $250,000	249	73	176
E. Less than $100,000	141	88	53
Kind of system and character of service:			
Electric elevated and subway railways	76	(1)	.....
Electric surface railways	201	(1)	.....
Selected interurban lines	333	(1)	.....
Selected small urban roads	146	(1)	.....
All other railway companies	174	(1)	.....

[1] This classification not made for 1902.

There were 454 companies in 1907 and 265 in 1902 that reported earnings from either freight or express business or both. It was impracticable, however, to ascertain the number of miles of track over which freight or express matter was carried, and therefore the total trackage has been used in all cases as the divisor in computing the average earnings from this business. The average for all companies was more than three times as great in 1907 as in 1902. The largest averages at both censuses are shown for income Class C, which is composed of the medium-sized companies, and for the selected interurban roads. While the amounts are not large, as compared with the earnings

from passenger service, the increases are significant of the development of this branch of business.

Earnings per car mile.—It is noticeable that every average for which the car mile is a standard shows an increase in 1907 as compared with 1902.

The inclusion of the earnings from the sale of current necessarily increases the earnings per car mile, but its elimination from the computations for both censuses confines the averages almost exclusively to the earnings resulting directly from the operation of the cars. As shown by Table 133, the averages at both censuses increased progressively, from that shown for the smaller companies to that for the group of largest companies; with the single exception, that for Class B, the average in 1907 was slightly less than that for the next smaller class. In other words, it would seem that cars operated by the smaller companies earn, on the average, a smaller amount of money in running a given distance than do those of the larger companies. An exception to this rule occurs in the case of the group of electric elevated and subway systems shown in Table 135, for which the reported earnings per car mile were only $0.2358.

Earnings per passenger.—The fare passenger is a third standard unit of measurement. The average earnings per passenger for 1907 were slightly in excess of those for 1902 for all companies taken together and for each of the 5 income classes, as shown in Table 133. The urban traffic is the predominating factor in determining this average, and it is not surprising to find the average for all companies to be about 5 cents, the almost universal fare of the urban passenger. Variations from this general average are due to conditions heretofore described, for which proper allowance can not be made in totals that include statistics for a large number of companies. The effect on the statistics of the long rides on the interurban lines is shown by the larger average, about 8½ cents, reported for the selected interurban lines in Table 135. The smallest average in 1907, 4.97 cents, is shown for the group of electric elevated and subway railways.[1]

Expenses and net earnings per unit.—Comparisons of average earnings per unit of measurement are significant in themselves, but they are much more so when they are brought into relation with the average expenses for the same units. In some respects comparisons of the averages of expenses and earnings, respectively, based on different units of measurement, as given in Tables 133, 134, and 135, convey a more definite idea of actual conditions than can be obtained from a comparison of total operating expenses and total operating earnings. Unfortunately it is impossible to eliminate the expenses incident to the generation of current for sale, so as to make the statistics for operating expenses comparable with those relating to income from operation exclusive of that from the sale of current, as shown in Table 133. This difficulty is overcome in part by giving separate averages for those companies that are not engaged in the regular light and power business, as shown in Tables 134 and 139.

[1] See also p. 92.

TABLE 139.—AVERAGE EARNINGS, EXPENSES, AND NET EARNINGS PER UNIT, OF COMPANIES WITH AND WITHOUT COMMERCIAL LIGHTING, AND OF PART-TIME COMPANIES: 1907 AND 1902.

UNIT.	TOTAL, ALL COMPANIES.		CLASSIFICATION GROUP.					
			Without commercial lighting.[1]		With commercial lighting.		Part-time.	
	1907	1902	1907	1902	1907	1902	1907	1902
Per mile of track:								
Operating earnings, total	$12,268.00	$11,152.00	$13,178.00	$11,794.00	$10,022.00	$8,978.00	$1,558.00	$2,978.00
Operating earnings, exclusive of income from sale of current	11,678.00	10,805.00	13,045.00	11,731.00	7,620.00	6,358.00	1,485.00	2,904.00
Operating expenses	7,372.00	6,411.00	7,909.00	6,772.00	6,038.00	5,217.00	1,118.00	1,732.00
Net earnings	4,895.00	4,741.00	5,268.00	5,022.00	3,983.00	3,761.00	439.00	1,247.00
Per car mile:								
Operating earnings, total	0.2597	0.2187	0.2519	0.2157	0.3085	0.2597	0.2361	0.1901
Operating earnings, exclusive of income from sale of current	0.2472	0.2119	0.2493	0.2145	0.2346	0.1839	0.2250	0.1854
Operating expenses, total	0.1561	0.1257	0.1512	0.1239	0.1859	0.1509	0.1695	0.1105
Power-plant expenses	0.0273	0.0204	0.0260	0.0196	0.0345	0.0293	0.0531	0.0250
Expenses for operation of cars	0.0624	0.0552	0.0631	0.0560	0.0586	0.0478	0.0566	0.0410
Net earnings	0.1036	0.0930	0.1007	0.0918	0.1226	0.1088	0.0666	0.0796
Per fare passenger:								
Operating earnings, total	0.0563	0.0523	0.0536	0.0508	0.0756	0.0722	0.1016	0.0656
Passenger earnings	0.0515	0.0494	0.0510	0.0493	0.0542	0.0493	0.0919	0.0621
All other earnings	0.0049	0.0029	0.0025	0.0015	0.0213	0.0229	0.0096	0.0035
Operating expenses	0.0339	0.0301	0.0321	0.0292	0.0455	0.0420	0.0729	0.0381
Net earnings	0.0225	0.0223	0.0214	0.0216	0.0300	0.0303	0.0287	0.0275

[1] Includes all full-time operating companies not engaged in regular light and power business, without regard to kind of power used.

The income from the sale of current for the census year 1907 amounted to $20,093,302, and large amounts ranging from $2,225,519 to $7,538,308 are shown for each of the five income classes (Table 107). The inclusion of the expenses incident to this income necessarily increases the average expense per mile of track, per car mile, and per passenger. As these expenses form a varying proportion of the total expenses at the

different censuses, a comparison based on them is not a true indication of the increase or decrease in the average expense of conducting traffic. They are, however, included by railway companies in many of their calculations and are so included in the majority of the tables in this report.

The operating earnings and expenses per mile of track and the net earnings per mile of track for companies, classified according to size, are given together in Table 136, which shows that for all operating companies the average net earnings for 1907 exceeded the average for 1902 by $154. For each of the three groups containing the largest companies, however, this average decreased in the same period, the decrease for Class A, which amounted to $988, being particularly noticeable.

The increase from 1902 to 1907 in the net earnings per mile of track, shown in Table 139, for companies classified as "Without commercial lighting" ($246) was larger than for the group classified as "With commercial lighting" ($222).

TABLE 140.—AVERAGE EARNINGS, EXPENSES, AND NET EARNINGS PER UNIT, BY GROUPS OF COMPANIES: 1907.

UNIT.	Total, all companies.	CLASSIFICATION GROUP.			
		Electric elevated and subway railways.[1]	Electric surface railways.[2]	Selected interurban lines.	Selected small urban roads.
Per mile of track:					
Operating earnings, total	$12,268.00	$80,727.00	$11,414.00	$5,237.00	$2,509.00
Operating earnings, exclusive of income from sale of current	11,678.00	80,471.00	10,821.00	5,020.00	2,502.00
Operating expenses	7,372.00	36,055.00	7,015.00	3,036.00	2,025.00
Net earnings	4,895.00	44,673.00	4,400.00	2,201.00	484.00
Per car mile:					
Operating earnings, total	0.2597	0.2358	0.2620	0.2728	0.1653
Operating earnings, exclusive of income from sale of current	0.2472	0.2351	0.2484	0.2614	0.1648
Operating expenses, total	0.1561	0.1053	0.1610	0.1581	0.1334
Power-plant expenses	0.0273	0.0230	0.0277	0.0359	0.0351
Expenses for operation of cars	0.0624	0.0405	0.0646	0.0545	0.0506
Net earnings	0.1036	0.1305	0.1010	0.1147	0.0319
Per fare passenger:					
Operating earnings, total	0.0503	0.0533	0.0566	0.0961	0.0575
Passenger earnings	0.0515	0.0497	0.0517	0.0840	0.0527
All other earnings	0.0049	0.0036	0.0050	0.0121	0.0048
Operating expenses	0.0339	0.0238	0.0348	0.0557	0.0404
Net earnings	0.0225	0.0295	0.0218	0.0404	0.0111

[1] Exclusive of the mixed elevated, subway, and surface systems in Boston, Mass., and Philadelphia, Pa.
[2] Includes the statistics for the few railways not operated by electricity.

The 6 elevated and subway railways reported the largest net earnings per mile of track, $44,673, while the selected small urban roads naturally show, on the same basis, the smallest averages for expenses and earnings and the smallest net earnings per mile of track, $484.

As the majority of the 933 "Electric surface railways" are operated under fairly similar conditions, the averages for this group are not affected by what may be termed the unusual or abnormal conditions under which the elevated and subway and long interurban lines are operated. The group includes a few unimportant systems which are not operated by electricity, but the amounts reported by them are not large enough to affect appreciably the averages. These averages are fairly comparable with those for the 725 electric surface roads for which the statistics were shown separately at the census of 1902. In 1907 the operating earnings, operating expenses, and net earnings per mile of track for this group were $11,414, $7,015, and $4,400, respectively, as compared with $10,503, $6,087, and $4,416, the corresponding averages in 1902. A more satisfactory comparison, however, results from the further subdivision of the electric roads reported for both censuses, which is shown in Table 139.

The operating earnings and expenses per car mile given in Table 141 show the effect upon this unit of measurement of the various factors before referred to.

The net earnings per car mile show an increase in 1907 as compared with 1902 for all of the classes of companies; the greatest increase is shown for Class D and the smallest for Class A. The association of light and power business with railway operations necessarily increases the power-plant expenses. As shown by Table 139 the cost of power per car mile in 1907 was relatively greater (3.45 cents) for companies with light plants than for those without (2.6 cents).

The use of the number of passengers as a divisor gives the smallest unit of measurement to determine the result of railway operations. The reduction to this small unit enables a concrete statement to be made from which general conditions can be determined by a glance at Table 142.

The averages based upon the fare passenger also range higher for 1907 than for 1902 (except in the case of the average net earnings for Class A), owing in part at least to the contraction in the number reported, as explained on page 170. The operating expenses of passenger traffic can not be segregated from the expenses of other traffic, freight, express, etc., and hence it is necessary to consider all expense from railway

operations. The amounts on which the average for "All other" earnings is based include income from chartered cars, freight, mail and express business, and sale of current; and all other miscellaneous earnings from operation. The averages for the companies that do and for those that do not engage in commercial lighting given in Table 139 are in some respects more satisfactory than those in Table 141, but they do not cover the entire field.

TABLE 141.—*Average earnings, expenses, and net earnings per car mile of companies, classified according to income from railway operations: 1907 and 1902.*

CLASSIFICATION GROUP.	1907 (cents).	1902 (cents).	Increase (cents).
Total, all companies:			
Operating earnings, total	25.97	21.87	4.10
Operating earnings, exclusive of income from sale of current	24.72	21.19	3.53
Operating expenses, total	15.61	12.57	3.04
Power-plant expenses	2.73	2.04	0.69
Expenses for operation of cars	6.24	5.52	0.72
Net earnings	10.36	9.30	1.06
Class A:			
Operating earnings, total	26.25	22.92	3.33
Operating earnings, exclusive of income from sale of current	25.58	22.63	2.95
Operating expenses, total	15.32	12.55	2.77
Power-plant expenses	2.40	1.79	0.61
Expenses for operation of cars	6.47	5.83	0.64
Net earnings	10.93	10.37	0.56
Class B:			
Operating earnings, total	24.81	21.12	3.69
Operating earnings, exclusive of income from sale of current	23.30	20.32	2.98
Operating expenses, total	15.10	12.19	2.91
Power-plant expenses	2.87	1.93	0.94
Expenses for operation of cars	5.87	5.35	0.52
Net earnings	9.71	8.93	0.78
Class C:			
Operating earnings, total	26.88	21.30	5.58
Operating earnings, exclusive of income from sale of current	24.46	20.26	4.20
Operating expenses, total	16.97	12.76	4.21
Power-plant expenses	3.33	2.08	1.25
Expenses for operation of cars	6.03	5.24	0.79
Net earnings	9.92	8.54	1.38
Class D:			
Operating earnings, total	26.34	19.68	6.66
Operating earnings, exclusive of income from sale of current	22.76	18.20	4.56
Operating expenses, total	16.87	12.66	4.21
Power-plant expenses	3.68	2.52	1.16
Expenses for operation of cars	5.62	4.93	0.69
Net earnings	9.47	7.02	2.45
Class E:			
Operating earnings, total	23.00	18.12	4.88
Operating earnings, exclusive of income from sale of current	19.65	16.03	3.62
Operating expenses, total	16.58	12.84	3.74
Power-plant expenses	4.45	3.27	1.18
Expenses for operation of cars	5.22	4.39	0.83
Net earnings	6.42	5.29	1.13

The net earnings per fare passenger for all railways in 1907 were two-hundredths of a cent greater than the average for 1902. The greatest gain is shown for Class D, the smallest for Class E; while Class A shows an actual decrease of six-hundredths of a cent. It will be noted that in 1907 the average passenger earnings per fare passenger for railways operating part of the year was over 9 cents, a much larger average than any shown in Table 142. The explanation is found in the fact that there are included in this group several large interurban roads which began operations during 1907.

TABLE 142.—*Average earnings, expenses, and net earnings per fare passenger of companies, classified according to income from railway operations: 1907 and 1902.*

CLASSIFICATION GROUP.	1907 (cents).	1902 (cents).	Increase (cents).
Total, all companies:			
Operating earnings, total	5.63	5.23	0.40
Passenger	5.15	4.94	0.21
All other	0.49	0.29	0.20
Operating expenses	3.39	3.01	0.38
Net earnings	2.25	2.23	0.02
Class A:			
Operating earnings, total	5.28	5.00	0.28
Passenger	4.99	4.84	0.15
All other	0.30	0.16	0.14
Operating expenses	3.08	2.74	0.34
Net earnings	2.20	2.26	[1] 0.06
Class B:			
Operating earnings, total	6.26	5.29	0.97
Passenger	5.57	4.98	0.59
All other	0.69	0.31	0.38
Operating expenses	3.81	3.05	0.76
Net earnings	2.45	2.24	0.21
Class C:			
Operating earnings, total	6.90	5.94	0.96
Passenger	5.85	5.40	0.45
All other	1.05	0.55	0.50
Operating expenses	4.35	3.56	0.79
Net earnings	2.54	2.38	0.16
Class D:			
Operating earnings, total	7.03	5.97	1.06
Passenger	5.65	5.31	0.34
All other	1.38	0.66	0.72
Operating expenses	4.50	3.84	0.66
Net earnings	2.53	2.13	0.40
Class E:			
Operating earnings, total	6.93	6.16	0.77
Passenger	5.54	5.14	0.40
All other	1.39	1.02	0.37
Operating expenses	5.00	4.36	0.64
Net earnings	1.94	1.80	0.14

[1] Decrease.

Operating ratio.—A comparison of the per cent ratio of operating expenses to operating earnings (the operating ratio), for the different groups of companies, indicates to some extent the effect of the efficiency of management and the density of traffic upon their financial showing. The ratio, however, is influenced by many other conditions, all of which should be given due weight in making comparisons.

The operating ratio is a measure often used in comparing railway companies, especially with regard to efficiency of management and conditions of operation. In all considerations of this character, however, it must be remembered that the operating ratio depends upon two factors, expenses and earnings, and that a high or low operating ratio may point either to high or low expenses or to low or high earnings. Thus stated the proposition seems almost too obvious; yet there is the greatest danger that this obvious truth may escape consideration, and that the operating ratio may actually be regarded as determined solely by the factor of expense. As a rule, the operating ratio is lower in the larger cities than in small cities, owing largely to the fact that the density of traffic varies more or less directly with the density of population. As to expenses, it is undoubtedly true that wages per man range higher in the larger cities than in small cities or in rural dis-

tricts, and that interruptions to traffic and obstructions retarding speed on surface lines are more prevalent in the larger cities, all of which circumstances tend to increase the average operating expense; but the effect of these conditions upon the operating ratio is offset by the larger number of passengers carried per car mile and the greater amount of passenger income, due to the greater density of traffic. Moreover, the power plants of companies in the larger cities are much more generally equipped with appliances for lessening the cost of power than are the plants of companies in smaller communities, so that they are able to produce power at a low figure of expense per unit.

Extended comparisons of operating ratios are always difficult and often dangerous. Among the factors that tend to vitiate such comparisons in the census statistics is that of the nonrailway interests of some railway companies, such as the sale of electric current, the operation of pleasure resorts, etc. Again, of the railway business itself, freight, mail, and express are prominent elements in some cases and absent in others. Interurban railways are in many respects rather to be classed with steam railroads than with street and electric railways; and the conditions under which elevated and subway roads operate are so different from those under which surface lines operate that comparisons must be made only for limited purposes, and then with the greatest caution.

The following statement shows the operating ratios for all operating railway companies, by geographic divisions, for 1907 and 1902:

Operating ratio of operating companies, by geographic divisions: 1907 and 1902.

DIVISION.	OPERATING RATIO.	
	1907	1902
United States	60.1	57.5
North Atlantic	60.0	58.4
South Atlantic	57.1	54.6
North Central	59.0	56.3
South Central	60.6	58.7
Western	60.1	57.4

It should be remembered that the expense factor of the operating ratio does not include taxes, which are included with fixed charges in the census statistics.

It is evident that on the whole the forces that tend to raise the operating ratio outweighed the opposing factors in the census interval 1902 to 1907. The ratio increased for the United States as a whole and for every one of the geographic divisions. The largest increase occurred in the Western division and the smallest, in the North Atlantic. This general increase of the ratio is probably to be explained by the changed conditions both of expense and of earnings. On the one hand, the period was one of rapid development in new territory of low traffic density, whether by new lines in the West and South and in little populous places in the other divisions, or by urban and interurban extensions. On the other hand, the period was one in which prices were steadily rising, raising the cost of materials and of labor.

The following statement, which shows the operating ratios in 1907 and 1902 for all the income classes of companies, is a further illustration of the fact that there has been a general increase in the operating ratio.

Operating ratio of companies, classified according to income from railway operations: 1907 and 1902.

CLASSIFICATION GROUP.	OPERATING RATIO.	
	1907	1902
Total, all companies	60.1	57.5
Class A	58.4	54.8
Class B	60.9	57.7
Class C	63.1	59.9
Class D	64.1	64.3
Class E	72.1	70.8

With the exception of Class D, for which the percentage was slightly smaller in 1907 than in 1902, there was a decided increase in the ratios at the later census as compared with those for the earlier census.

At each census the operating ratios decreased progressively from a maximum for the smallest companies, those belonging to Class E, to a minimum for the largest companies, those belonging to Class A. In 1907 the high ratio for Class E is in part due to the fact that the roads operated by animal power all fall in this group, and also to the fact that of the 55 roads operated only for a portion of the year, 52 belong to this class, the other 3 belonging to Class D. The general decrease in operating ratio with increase of the business of the companies is probably due to the fact that the gradation of the companies in the various income groups corresponds roughly with the gradation of population of the areas in which they operate. As has been explained, increasing density of population generally means, on the one hand, increasing density of traffic, with resultant increase of earnings, and, on the other hand, the economies incident to large-scale organization of the work of operation.

The per cent ratio of net earnings from operation to total operating earnings is very obviously the complement of the operating ratio, and therefore just as the operating ratio regularly decreases, the net-earnings ratio regularly increases for the companies from Class E to Class A.

In order that further comparisons may be made, subject to the caution already given, further statements are presented, giving comparative exhibits of operating ratios of companies reporting net income and net deficits, respectively, and of companies "Without commercial lighting," "With commercial lighting," and "Part-time" companies.

Operating ratio of companies reporting net income and net deficit: 1907 and 1902.

CLASSIFICATION GROUP.	OPERATING RATIO.	
	1907	1902
Total, all companies	60.1	57.5
Companies reporting net income	58.8	56.0
Companies reporting net deficit	64.7	67.5

Operating ratio of companies with and without commercial lighting and of part-time companies: 1907 and 1902.

CLASSIFICATION GROUP.	OPERATING RATIO.	
	1907	1902
Total, all companies	60.1	57.5
Without commercial lighting	60.0	57.4
With commercial lighting	60.3	58.1
Part-time companies	71.8	58.1

At the census of 1902 and again at the census of 1907 an analysis of companies was made on the basis of their operating ratios. The following table shows the number of companies that had operating ratios falling within specified limits at the two censuses, and the absolute and relative increase in the number of companies reported for the respective ratio groups:

TABLE 143.—*Distribution of operating companies with respect to operating ratio: 1907 and 1902.*

OPERATING RATIO (PER CENT).	NUMBER OF COMPANIES.		Increase (number).
	1907	1902	
Total, all companies	[1] 939	[2] 799	140
Under 50	78	73	5
50 but under 60	195	169	26
60 but under 70	263	216	47
70 but under 80	160	121	39
80 but under 90	109	92	17
90 and over	134	128	6

[1] Exclusive of 6 companies which failed to furnish this information.
[2] Exclusive of 18 companies which failed to furnish this information.

The group of companies reporting an operating ratio of 60 per cent but under 70 contained the largest number of companies in any one group at both censuses, and it also showed the largest numerical increase.

Table 144 carries the analysis further and presents the distribution of the operating companies among both the income and operating ratio groups for 1907.

TABLE 144.—DISTRIBUTION OF OPERATING COMPANIES, CLASSIFIED ACCORDING TO INCOME FROM RAILWAY OPERATIONS, WITH RESPECT TO OPERATING RATIO: 1907.

OPERATING RATIO (PER CENT).	Total, all companies.	COMPANIES WITH INCOME FROM RAILWAY OPERATIONS OF—				
		$1,000,000 and over. (A)	$500,000 but less than $1,000,000. (B)	$250,000 but less than $500,000. (C)	$100,000 but less than $250,000. (D)	Less than $100,000. (E)
Total	[1] 939	76	50	80	182	551
Under 50	78	12	7	3	16	40
50 but under 60	195	20	17	30	48	71
60 but under 70	263	21	18	28	61	135
70 but under 80	160	10	6	14	38	92
80 but under 90	109	4	2	4	10	89
90 and over	134	.....	.....	1	9	124

[1] Exclusive of 6 companies which failed to furnish this information.

Of the 243 companies with an operating ratio of 80 per cent or over, 213 are of Class E and include most of the roads operated by animal power or for part of the year only, while 232 out of the 243 belong to Classes D and E.

The correlation between the magnitude of a company's operations and its operating ratio is closer than is apparent from an examination of the absolute numbers given in the table. When, however, the numbers of companies in the income-class columns are taken cumulatively from top to bottom and the sums expressed as cumulative percentages of the totals, the correlation is shown to be almost complete.

OPERATING RATIO (PER CENT).	PER CENT OF COMPANIES REPORTING SPECIFIED RATIO IN INCOME CLASS—				
	A	B	C	D	E
Under 50	16	14	4	9	7
Under 60	54	48	41	35	20
Under 70	82	84	76	69	45
Under 80	95	96	94	90	61
Under 90	100	100	99	95	77

The operating ratios for companies, classified according to kind of system and character of service, are given for 1907 in the following statement:

Operating ratio of companies, classified according to kind of system and character of service: 1907.

CLASSIFICATION GROUP.	Operating ratio.
Total, all companies	60.1
Kind of system:	
Electric elevated and subway railways	44.7
Electric surface railways	61.5
Character of service:	
Selected interurban lines	58.0
Selected small urban roads	80.7
All other railways	60.2

The electric elevated and subway lines, which show the lowest operating ratio of any class or group, are operated under conditions of maximum traffic density, and, on the other hand, the selected small urban roads, which show the highest operating ratio, are operated under conditions of minimum traffic density.

The distribution of these same classes of operating companies among the operating ratio groups is given in Table 145.

TABLE 145.—*Distribution of operating companies, classified according to kind of system and character of service, with respect to operating ratio: 1907.*

OPERATING RATIO (PER CENT).	Total, all companies.	COMPANIES ACCORDING TO KIND OF SYSTEM.		COMPANIES ACCORDING TO CHARACTER OF SERVICE.		
		Electric elevated and subway railways.[1]	Electric surface railways.[2]	Selected interurban lines.	Selected small urban roads.	All other railways.
Total	[3] 939	0	933	50	100	780
Under 50	78	3	75	3	4	71
50 but under 60	195	1	194	25	14	156
60 but under 70	263	2	261	15	18	230
70 but under 80	160	.....	160	6	14	140
80 but under 90	109	.....	109	1	18	90
90 and over	134	.....	134	.....	32	102

[1] Exclusive of the mixed elevated, subway, and surface systems in Boston, Mass., and Philadelphia, Pa.
[2] Includes the statistics for the few railways not operated by electricity.
[3] Exclusive of 6 companies which failed to furnish this information.

All the elevated and subway railways and over four-fifths of the selected interurban lines fall in the groups with an operating ratio of less than 70 per cent, while nearly two-thirds of the selected small urban roads have an operating ratio of 70 per cent or over.

Although the operating ratio varies from company to company within every state, yet the ratio of operating expenses to operating earnings of all the railways of a state regarded as a single system may perhaps in most cases be taken to represent a typical ratio for the state. These state ratios are included in Table 104, which gives the condensed income account of operating companies, grouped by states and geographic divisions; but for comparative purposes they are reproduced in the following statement. The states are ranked according to their operating ratios at the respective censuses. The ratio for the United States as a whole is calculated from elements so diverse that it has little statistical value, except as a standard of reference for the state averages.

Operating ratio, by states: 1907 and 1902.

1907		1902	
STATE.	Operating ratio.	STATE.	Operating ratio.
Arizona	83.8	Arizona	84.7
New Hampshire	82.3	Vermont	80.7
Nevada	79.9	New Hampshire	79.3
Montana	72.6	Mississippi	74.3
Vermont	71.1	Montana	74.2
California	70.5	North Carolina	73.7
Florida	70.0	Maine	73.1
New Mexico	69.7	Delaware	72.1
Massachusetts	68.5	New Mexico	71.5
Delaware	68.3	Massachusetts	69.5
Alabama	67.6	Kansas	69.4
Connecticut	66.8	South Carolina	66.7
Iowa	65.8	Virginia	65.0
Maine	65.5	Connecticut	64.7
Mississippi	65.4	Texas	64.2
North Dakota	65.3	Florida	64.1
Washington	65.1	Rhode Island	63.8
Texas	63.7	Utah	63.6
Oklahoma	63.4	Oregon	62.7
Illinois	63.3	Washington	62.0
Virginia	63.3	Iowa	61.3
North Carolina	62.7	Idaho	60.9
Rhode Island	61.9	Louisiana	60.4
Idaho	61.8	West Virginia	59.2
Utah	61.5	Alabama	58.7
New Jersey	61.3	Colorado	58.4
Ohio	60.8	Illinois	58.4
West Virginia	60.1	Arkansas	58.2
United States	60.1	Indiana	58.2
Oregon	60.0	Tennessee	57.8
South Carolina	59.9	United States	57.5
Michigan	59.8	Nebraska	57.1
Louisiana	59.5	Missouri	56.8
Kentucky	59.2	New York	56.8
Pennsylvania	58.2	Michigan	56.3
New York	56.7	Ohio	55.1
Indiana	56.2	California	54.2
Arkansas	56.2	Kentucky	53.2
Georgia	55.4	New Jersey	53.1
Tennessee	54.8	District of Columbia	52.0
Kansas	53.8	Georgia	51.9
Missouri	53.8	Pennsylvania	51.5
District of Columbia	52.9	Wisconsin	51.1
Wisconsin	52.7	Maryland	47.2
South Dakota	52.5	Minnesota	46.1
Colorado	50.8		
Maryland	50.2		
Minnesota	50.0		
Nebraska	48.4		

The average for the United States as a whole shows an increase from 57.5 per cent in 1902 to 60.1 per cent in 1907, or an absolute increase of 2.6, while the range of the ratios or the difference between the maximum and the minimum ratio has contracted. In 1902 the difference between the lowest and the highest percentage was 38.6 and in 1907, 35.4, a contraction of range amounting to 3.2. Increases in operating ratios appear for 20 states and reductions for 24 of the states that reported railways at both censuses. In 1907, however, 21 of the states showed a ratio equal to or below the average for the United States, while in 1902 but 14 states showed a ratio below the average for the country as a whole. The increases predominate slightly in the states of the South Atlantic and North Central divisions, and reductions in the states of the North Atlantic, South Central, and Western divisions. The greatest increase in the operating ratio appears for California, from 54.2 per cent in 1902 to 70.5 per cent in 1907, a total increase of 16.3. This is probably accounted for by the San Francisco earthquake and fire of 1906, which destroyed a vast amount of railway property and made operating conditions in and about San Francisco abnormal throughout 1907, and also by the large development in the southern and northern parts of the state of interurban traffic, which carried with it a comparatively high operating ratio. The

other great changes in operating ratios are in the direction of reduction; thus Kansas shows a reduction of 15.6 and North Carolina a reduction of 11. These changes, however, tend to bring the ratios for the respective states into conformity with the general averages for the geographic divisions in which the states are situated.

Relation of operating ratio to density of traffic.—As has been stated, one of the chief factors governing the ratio of operating expenses to operating earnings is density of traffic. A comparison of the number of fare passengers carried per mile of track, which indicates traffic density, with the operating ratios, brings out the fact that, as a rule, a decrease in the ratio accompanies an increase in traffic density.

TABLE 146.—DISTRIBUTION OF OPERATING COMPANIES ACCORDING TO FARE PASSENGERS PER MILE OF TRACK AND ACCORDING TO OPERATING RATIO: 1907.

FARE PASSENGERS PER MILE OF TRACK.	NUMBER OF COMPANIES REPORTING OPERATING RATIO.						
	Total.	Under 50 per cent.	50 per cent but under 60 per cent.	60 per cent but under 70 per cent.	70 per cent but under 80 per cent.	80 per cent but under 90 per cent.	90 per cent and over.
Total	[1] 938	77	195	263	160	109	134
Under 25,000	169	11	27	45	26	21	39
25,000 but under 50,000	134	9	21	22	22	26	34
50,000 but under 100,000	232	19	39	73	37	25	39
100,000 but under 200,000	263	17	61	83	52	30	20
200,000 but under 300,000	67	7	20	23	12	3	2
300,000 but under 400,000	32	8	11	8	5	.....	.....
400,000 and over	41	6	16	9	6	4	.....

[1] Exclusive of 6 companies which failed to furnish this information and 1 freight road.

The fact must be borne in mind that companies vary greatly in operating conditions, some doing commercial lighting, some an interurban business, and others urban business with no outside interests. It will be observed that the companies with a low traffic density have, proportionately, the largest representation in the high ratio groups, while those with a high traffic density are, proportionately, the most numerous in the groups having low operating ratios. Thus the roads averaging fewer than 50,000 fare passengers per mile of track constituted 26 per cent of the companies with an operating ratio of less than 50 per cent in 1907, and 24.6 per cent, 25.5 per cent, 30 per cent, 43.1 per cent, and 54.5 per cent, respectively, of each successively higher ratio group; while, on the other hand, the roads carrying at least 300,000 fare passengers per mile of track constituted 18.2 per cent of all roads with an operating ratio of less than 50 per cent, the percentages decreasing more or less uniformly for each successive ratio group until these roads formed but 3.7 per cent of those with an operating ratio of 80 per cent, but less than 90 per cent. For none of the roads reporting at least 300,000 fare passengers per mile operated was the ratio of operating expenses to operating earnings as high as 90 per cent.

For some purposes, especially from the point of view of the expense term of the operating ratio, the number of passengers per car mile is a better unit of measurement and comparison than the number of passengers per mile of track. Table 147 shows the distribution of companies, grouped on the basis of this unit and on the basis of their operating ratios.

TABLE 147.—DISTRIBUTION OF OPERATING COMPANIES ACCORDING TO FARE PASSENGERS PER CAR MILE AND ACCORDING TO OPERATING RATIO: 1907.

FARE PASSENGERS PER CAR MILE.	NUMBER OF COMPANIES REPORTING OPERATING RATIO.						
	Total.	Under 50 per cent.	50 per cent but under 60 per cent.	60 per cent but under 70 per cent.	70 per cent but under 80 per cent.	80 per cent but under 90 per cent.	90 per cent and over.
Total	[1] 938	77	195	263	160	109	134
Under 2	144	6	26	35	23	19	35
2 but under 3	164	11	34	27	30	27	35
3 but under 4	217	15	30	68	36	36	32
4 but under 5	202	15	56	67	37	11	16
5 but under 6	122	17	26	41	23	7	8
6 but under 7	37	4	10	10	6	4	3
7 and over	52	9	13	15	5	5	5

[1] Exclusive of 6 companies which failed to furnish this information and 1 freight road.

In this case, as in the preceding, the number of companies in the lower density classes (those having less than 3 passengers per car mile) is least proportionately in the group having an operating ratio of less than 50 per cent, and greatest proportionately in the groups with the highest operating ratios; while in the case of groups with a high traffic density the number of companies is proportionately greater in the

groups with a lower operating ratio and smaller in those showing a high ratio.

The effect of density of traffic upon operating expenses appears also when the per cent ratios of operating expenses and deductions from income to total expenses are studied in connection with the number of passengers per mile of track. Of roads operating under conditions otherwise similar, those carrying a great number of passengers per mile of track report a relatively small amount for operating expenses, and a relatively large amount for fixed charges, as compared with roads of low traffic density. For roads operating in sparsely settled districts, the importance of the labor cost as a factor in the expenses is relatively greater, while the importance of the fixed charges is relatively less than for roads operating in densely peopled districts. This is illustrated in Table 148, which shows the respective ratios of operating expenses and fixed charges to their total, for the various income classes of roads, and also the fare passengers per mile of track for these classes.

TABLE 148.—*Complementary ratios of operating expenses and deductions from income, and passengers per mile of track, of companies, classified according to income from railway operations: 1907 and 1902.*

CLASSIFICATION GROUP.	1907			1902		
	Fare passengers per mile of track.	Per cent of total expenses represented by—		Fare passengers per mile of track.	Per cent of total expenses represented by—	
		Operating expenses.	Deductions from income.		Operating expenses.	Deductions from income.
Total, all companies	216,522	64.5	35.5	212,217	64.7	35.3
Class A	361,701	63.0	37.0	399,058	61.8	38.2
Class B	133,370	64.8	35.2	182,541	67.1	32.9
Class C	112,476	68.4	31.6	125,507	69.1	30.9
Class D	91,371	69.2	30.8	97,707	71.4	28.6
Class E	59,741	72.7	27.3	59,790	75.2	24.8

VI.

BALANCE SHEET.

The balance sheets furnished to the Census Bureau are supposed to show the financial condition of the companies at the end of the year or other period covered by the reports. It was manifestly not within the province of the bureau to question the accuracy of these statements or to endeavor to ascertain whether the proper amounts had been reported for the assets and liabilities. Undoubtedly different methods of bookkeeping are reflected in the balance sheets, and it is probable that part of the assets recorded for some companies are of questionable value. It is seldom, however, that a company underestimates the value of its assets, and therefore the combination of the balance sheets for the different companies doubtless results in a much larger total than would be obtained from a conservative valuation of the properties.

There were 6 companies in 1907 and 20 in 1902 that failed to furnish balance sheets. The statements furnished by all the other companies are combined in Table 149.

TABLE 149.—*Net balance sheet, by accounts, of operating and lessor companies combined: 1907 and 1902.*

ACCOUNT.	1907		1902	
	Amount.	Per cent of total.	Amount.	Per cent of total.
Number of companies	[1] 1,230	.....	[2] 967	.....
Assets, total	$4,263,861,592	100.0	$2,533,847,258	100.0
Cost of construction, equipment, and real estate	3,637,668,708	85.3	2,167,634,077	85.5
Stocks and bonds of other electric-railway companies	210,342,592	4.9	([3])	.....
Treasury stocks and bonds	27,553,501	0.6	([4])	.....
Other permanent investments	136,768,104	3.2	152,513,997	6.0
Cash on hand	26,456,137	0.6	28,021,853	1.1
Bills and accounts receivable	116,568,957	2.7	22,448,700	0.9
Supplies	30,811,390	0.7	10,610,928	0.4
Sundries	77,692,203	1.8	152,617,703	6.0
Liabilities, total	4,263,861,592	100.0	2,533,847,258	100.0
Capital stock	2,031,986,366	47.7	1,266,883,289	50.0
Funded debt	1,672,959,930	39.2	974,112,422	38.4
Real-estate mortgages	4,059,805	0.1	([5])	.....
Floating debt	278,927,097	6.5	([5])	.....
Reserves	27,222,471	0.6	([5])	.....
Bills and accounts payable	91,241,278	2.1	101,704,634	4.0
Interest due and accrued	25,317,196	0.6	14,497,670	0.6
Dividends due	3,909,390	0.1	2,543,823	0.1
Sundries	57,793,767	1.4	133,399,308	5.3
Net surplus	70,444,292	1.7	40,706,112	1.6
Cost of construction and equipment during the year	184,018,453	.....	126,682,473	.....

[1] Exclusive of 6 companies which failed to furnish this information.
[2] Exclusive of 20 companies which failed to furnish this information.
[3] Not reported separately. Included in "Other permanent investments."
[4] Not reported.
[5] Not reported separately. Probably included in "Bills and accounts payable" and "Sundries."

The very general adoption of the standard classification of accounts and form of report prescribed by the American Street and Interurban Railway Accountants' Association has tended toward uniformity in methods of bookkeeping, and while the balance sheets furnished by the companies in 1907 were not in all cases complete, they were, as a rule, much more satisfactory than in 1902.

Table 149 is designated a "Net balance sheet" because the surplus shown under liabilities is a net surplus obtained by deducting the sum of the deficits from the sum of the surpluses, the total assets and liabilities reported being reduced, therefore, by an amount equal to the sum of the deficits. This reduction has been made in all balance-sheet tables except in the comparative summary by states (Table 155).

Assets.—The amount reported for cost of construction and equipment should not be taken as representing the actual amount invested in tracks, appliances, and equipment. The consolidations that took place during the five years ending with 1907 made it increasingly difficult to secure a true figure for actual cost of construction and equipment. In 1902 franchise val-

ues were largely carried as sundries, but it is a very common practice to charge these values to cost of construction and equipment. A majority of the street-railway systems in the larger cities are the results of many consolidations, and the turning over of the property in each instance has carried with it a large but unknown value for franchises, good will, etc., so that a considerable proportion of the cost of construction and equipment appearing in the returns for these companies represents capitalized franchise values, etc. Hence, in order to secure uniformity in the returns, in the exceptional cases where franchise values were reported separately they have been added to the cost of construction and equipment; the latter amount then represents the book value of the railway, its equipment and real estate used in conjunction therewith, and its capitalized franchise value, bonus, good will, etc. Of the 1,230 companies that furnished balance sheets in 1907, only 594 stated definitely that franchise values were included under this head, while 404 expressly stated that they were not so included, and 232 neglected or declined to answer the inquiry. The amount reported as cost of construction represents almost exactly the same proportion of the total assets in 1907 as in 1902, the difference in the ratios being only one-fifth of 1 per cent. The increase in the amount reported was 67.8 per cent, as compared with an increase of 68.3 per cent in the total assets. The balance-sheet inquiry in 1902 used only the one head "Other permanent investments" to cover items that in 1907 were reported separately under the headings "Stocks and bonds of other electric-railway companies" and "Other permanent investments." The total amount reported for these two items in 1907 was $347,110,696 as compared with a total of $152,513,997 for "Other permanent investments" in 1902, an increase of $194,596,699, or 127.6 per cent. Such investments constituted 8.1 per cent of the total assets reported in 1907 and 6 per cent of the total for 1902.

When treasury stocks and bonds were reported under that name in 1902 they were excluded in the census of that year from among assets or liabilities. They have been included in the census of 1907, because it was found that it is the bookkeeping practice of the companies so to include them, and it was believed that the difficulties of eliminating them would be greater than any argument for such a policy. Moreover, it is desirable that the statistics should measure the extent and movement of this apparently increasing business practice.[1]

The item of bills and accounts receivable shows a very large increase for 1907 over 1902 (419.3 per cent), and constitutes 2.7 per cent of the assets in 1907, as against nine-tenths of 1 per cent in 1902. It is very probable that in some cases advances made by operating companies to lessor companies for improvements on their lines or for other purposes are included under this head. In 1902 such advances were included under sundries, and the same course was followed in 1907 whenever the reports permitted it. These advances constitute duplications, since the expenditures for which the advances are made are entered on the asset side of the account, under cost of construction and equipment, in the books and reports of the subsidiary companies, while they are also represented among the liabilities of these companies as obligations to the controlling companies. The items cash on hand, bills and accounts receivable, and supplies, representing, collectively, the working assets, amounted in the aggregate to $173,836,484 in 1907 as compared with $61,081,481 in 1902 (an increase of $112,755,003, or 184.6 per cent), and constituted 4 per cent of the total assets in 1907 as compared with 2.4 per cent in 1902.

The amount shown for the assets item "Sundries" in 1907 is practically one-half as great as that shown in 1902. This great decrease is fully explained by the fact that franchise values were generally tabulated under sundries in 1902, while in 1907 they have been included under cost of construction and equipment. Working backward from the total for sundries in 1907, and assuming, for the purpose of calculation, that sundries exclusive of franchise values really increased between 1902 and 1907 at the same rate as the total assets reported, 68.3 per cent, we should reach the deduction that sundries exclusive of franchises were valued in 1902 at $46,162,925, and hence that franchise values reported under sundries were $106,454,778. Adding this latter amount to the total reported in 1902 for cost of construction and equipment gives as a corrected total for that year $2,274,088,855, an amount more properly comparable with the total for 1907, which includes franchise values. The increase for this item, on the corrected basis, would be 60 per cent instead of the 67.8 per cent increase shown by the figures of Table 149.

Investments in securities for the purpose of establishing a sinking fund or a fund for a specified railway use have been largely included under sundries.

Liabilities.—The amount of capital stock, as reported in the balance sheet, is less by the sum of $65,722,490 than the amount of capital stock outstanding as reported in Table 183, and the funded debt as carried in the balance sheet is $4,103,310 less than the aggregate amount of funded debt reported in the same table. The difference, in the case of the capital stock, is due chiefly to the fact that in a number of cases the capital stock outstanding is not full paid up, the par value of the stock being reported as called for under Table 183, and the amount paid in being entered among the liabilities in the balance sheet. This condition exists to the largest extent in Pennsylvania, and $39,190,998 of the difference referred to is due to companies in that state which

[1] For fuller discussion of this point, see p. 103.

had part-paid stock. Differences to the amount of $6,865,724, due to part-paid stock, also occur in Arizona, Massachusetts, New Jersey, New York, and Ohio. Differences aggregating $1,865,768 are due to the fact that cash investments for which stock had not yet been issued were reported in Table 183 as if they represented stock actually issued, and in the balance sheet as floating debt. These differences were reported in Missouri, South Dakota, Virginia, and West Virginia. The balance of the difference in stock and the difference in funded debt is occasioned by the fact that for 4 companies in Virginia in the hands of receivers the par value of the outstanding securities is included in Table 183, and the value of the property turned over to the receivers is shown in the balance sheet as funded debt.

In 1902 the differences between the capital stocks and bonds reported in the balance sheets and the stocks and bonds outstanding were $48,689,671 and $18,596,717, respectively; of this difference in stock, $28,299,371 was reported for Pennsylvania.

The ratio of capital stock to total liabilities has decreased slightly, and the corresponding ratio of funded debt has increased. The increase from 1902 to 1907 in the amount of capital stock reported in the balance sheet was 60.4 per cent and in the funded debt, 71.7 per cent. Of the total shown in 1907 for funded debt, $30,629,091 represents the value of several railway properties in Connecticut which are owned by the New York, New Haven and Hartford Railroad (steam) and for which no capital stock or bonds were reported. In 1907, for the first time, a detailed statement of real-estate mortgages, floating debt, and reserves, apart from bills and accounts payable, was made. In 1902 these items were included either under bills and accounts payable or under sundries. The apparent decrease, therefore, in bills and accounts payable and in sundries is not an actual decrease. For purposes of comparison it is necessary to combine the bills and accounts payable and the sundries for 1902, and for 1907 to combine the same items, with the addition of the real-estate mortgages; floating debt, and reserves. This calculation gives a total of $459,244,418 for 1907 as against the comparable total of $235,103,942 for 1902, an increase of $224,140,476, or 95.3 per cent. These totals constituted 10.7 per cent of total liabilities in 1907 as compared with 9.3 per cent in 1902.

The large amount shown for floating debt, which in 1907 formed 6.5 per cent of all liabilities, is due to a great extent to the fact that many companies charge to that account part or all of their expenditures for construction and equipment.

The items interest due and accrued, dividends due, and net surplus, represented, respectively, about the same proportion of the total liabilities in 1907 and in 1902. The net surplus represents the balance for all companies; 710 companies in 1907 reported surplus balances aggregating $106,623,225; 303 companies deficits to the amount of $36,178,933; and 217 companies balanced their statements with neither profit and loss surplus nor deficit, leaving a net surplus balance of $70,444,292.

Balance sheet of operating and lessor companies.—While it is necessary to combine the statistics for operating and lessor companies in order to obtain aggregates for the entire industry, the financial transactions of the two classes of companies are so different that it is desirable to present a separate balance sheet for each. The figures are given in Table 150.

TABLE 150.—NET BALANCE SHEET, BY ACCOUNTS, OF OPERATING AND LESSOR COMPANIES, RESPECTIVELY: 1907.

ACCOUNT.	Total, all companies.	Operating companies.	Lessor companies.	PER CENT OF TOTAL. Operating companies.	PER CENT OF TOTAL. Lessor companies.
Number of companies	[1] 1,230	[1] 939	291	76.3	23.7
Assets, total	$4,263,861,592	$3,221,069,127	$1,042,792,465	75.5	24.5
Cost of construction, equipment, and real estate	3,637,668,708	2,719,651,703	918,017,005	74.7	25.3
Stocks and bonds of other electric-railway companies	210,342,592	180,941,984	29,400,608	86.0	14.0
Treasury stocks and bonds	27,553,501	19,389,042	8,164,459	70.4	29.6
Other permanent investments	136,768,104	129,472,561	7,295,543	94.7	5.3
Cash on hand	26,456,137	23,846,150	2,609,987	90.1	9.9
Bills and accounts receivable	116,568,957	81,114,310	35,454,647	69.6	30.4
Supplies	30,811,390	30,565,962	245,428	99.2	0.8
Sundries	77,692,203	36,687,415	41,004,788	47.2	52.8
Liabilities, total	4,263,861,592	3,221,069,127	1,042,792,465	75.5	24.5
Capital stock	2,031,986,366	1,508,759,290	523,227,076	74.3	25.7
Funded debt	1,672,959,930	1,264,504,062	408,455,868	75.6	24.4
Real-estate mortgages	4,059,805	2,342,341	1,717,464	57.7	42.3
Floating debt	278,927,097	222,867,837	56,059,260	79.9	20.1
Reserves	27,222,471	27,169,482	52,989	99.8	0.2
Bills and accounts payable	91,241,278	83,830,057	7,411,221	91.9	8.1
Interest due and accrued	25,317,196	24,316,053	1,001,143	96.0	4.0
Dividends due	3,909,390	3,842,502	66,888	98.3	1.7
Sundries	57,793,767	41,887,769	15,905,998	72.5	27.5
Net surplus	70,444,292	41,549,734	28,894,558	59.0	41.0
Cost of construction and equipment during the year	184,918,453	170,446,513	14,471,940	92.2	7.8

[1] Exclusive of 6 companies which failed to furnish this information.

The lessor companies represent approximately one-fourth and the operating companies three-fourths of the combined main balance-sheet totals. This ratio holds substantially for the number of companies, the total assets and liabilities, the cost of construction, equipment, and real estate, and the capitalization.

The holdings of the operating companies in stocks and bonds of other electric-railway companies are proportionately far greater than those of the lessor companies, owing to the fact that many of the operating companies have large and, in some cases, controlling interests in leased properties. The bulk of the investment of the lessor companies in the stocks and bonds of other railway companies is confined to a comparatively few companies; of the 291 lessor companies, only 28 reported such investments, and of the total amount, $29,400,608, thus reported, $25,889,-788, or nearly 90 per cent, was returned by 4 companies, 2 in New York and 2 in Pennsylvania. Of the operating companies, 108 owned stocks and bonds in other electric-railway companies.

The holdings of the lessor companies in treasury stocks and bonds were proportionately greater than those of the operating companies; but in this case, too, the total holdings were not widely distributed among them. Of the 291 lessor companies, only 9 reported treasury stocks and bonds, and of the total amount, $8,164,459, shown for this item, more than 90 per cent was reported by 2 companies, 1 of which has part of its road still under construction, while the other has a large floating debt, which offsets its treasury stock and bond assets. The holdings of operating companies in treasury stocks and bonds, on the other hand, were distributed among 76 companies, and were largely offset by floating-debt liabilities incident to railway operations.

As the table shows, the interests of the lessor companies are as a rule confined to the railway properties owned, their investments in nonrailway properties constituting only seven-tenths of 1 per cent of their total assets. Only 15 lessor companies reported permanent investments in nonrailway properties in 1907, and of the total amount, more than three-fourths was reported by 3 companies—1 each in Connecticut, New York, and Washington. There were, on the other hand, 198 operating companies reporting nonrailway investments. Summarizing, it is found that there were 349 companies—304 operating companies and 45 lessor companies—that reported holdings of some one or more of the three investment items.

The items "Cash on hand" and "Supplies" are important chiefly for the operating companies. The cash receipts of the lessor companies are as a rule disbursed as dividends, after the payment of taxes, interest, other charges, and administration expenses, and the cash assets regularly on hand are therefore small. Of the 291 lessor companies, only 112 reported any cash on hand in the balance sheet, and, of the total for these companies, 70 per cent was reported by a single company. Only 8 of the lessor companies reported any amount for supplies, and of the total amount so reported, over 80 per cent was reported by 2 companies. There were 42 of the lessor companies that reported sundry assets in the balance sheet. Of the total amount reported as sundries by lessor companies, over 90 per cent was reported by 6 companies located, respectively, 1 in New York, 1 in Ohio, and 4 in Pennsylvania; and nearly 85 per cent of the total represents claims for advances made to leased lines by the 4 Pennsylvania companies. This increase of the sundries item by the inclusion of such claims for advances by the lessors fully explains the disproportionately great amount of sundries shown for the lessor companies as compared with the operating companies.

The distribution between the operating and the lessor companies is nearly the same, proportionately, for the items capital stock and funded debt. There were 98 lessor companies and 158 operating companies that reported no funded debt; 18 of these companies reported that funded debt was authorized but that none was outstanding.

Real-estate mortgages were reported by 16 of the lessor companies and the liabilities of this class are relatively heavier for the lessor than for the operating companies. Floating debt was reported by 86 lessor companies; reserves, by 8; bills and accounts payable, by 67; interest due and accrued, by 22; and dividends due, by 4.

Only 42 lessor companies reported sundry liabilities, the bulk of which represented amounts due to lessee companies for advances made for improvements, betterments, and additions to the properties of the lessors. Of the total amount reported as sundries, $13,279,042, or over 80 per cent, was reported by 5 lessor companies of New York City. The net surplus shown for the lessor companies is the difference between an aggregate surplus of $32,201,859, reported by 122 companies, and an aggregate deficit of $3,307,-301, reported by 38 companies, the other 131 lessor companies reporting neither surplus nor deficit. Of the lessor companies reporting deficits, 15 were in Pennsylvania; 11 in New York; 6 in Massachusetts; 2 each in New Hampshire and New Jersey; and 1 each in Illinois and Maryland.

One of the most interesting and significant features of this comparative showing of the net balance-sheet statements of lessor and operating companies appears in the net surplus account. The lessor companies, though representing less than one-fourth of the number of all companies, and though reporting only about one-fourth of the capital stock and funded debt of all companies, reported 41 per cent of the total net surplus.

The net surplus shown for all operating companies is the difference between an aggregate surplus of $74,421,366, reported by 588 companies, and an

aggregate deficit of $32,871,632, reported by 265 companies—the other 86 operating companies reporting neither surplus nor deficit.

The following statement presents a detailed statement of surpluses and deficits in tabular form:

Analysis of balance-sheet surplus and deficit balances: 1907.

	Total, all companies.	Operating companies.	Lessor companies.	Per cent of total. Operating companies.	Per cent of total. Lessor companies.
Number of companies	1,230	939	291	76.3	23.7
Net surplus	$70,444,202	$41,549,734	$28,894,558	59.0	41.0
Surplus:					
Number of companies	710	588	122	82.8	17.2
Per cent of total	57.7	62.6	41.9	.....	.....
Amount	$106,623,225	$74,421,366	$32,201,859	69.8	30.2
Deficit:					
Number of companies	303	265	38	87.5	12.5
Per cent of total	24.6	28.2	13.1	.....	.....
Amount	$36,178,923	$32,871,632	$3,307,301	90.9	9.1
Neither surplus nor deficit:					
Number of companies	217	86	131	39.6	60.4
Per cent of total	17.6	9.2	45.0	.....	.....

The per cent distribution of the total assets and the liabilities, respectively, among the several accounts, for operating and lessor companies separately, is given in the following table for 1907:

TABLE 151.—*Per cent distribution, by accounts, of the total assets and liabilities, for operating and lessor companies, respectively: 1907.*

Account.	Per cent of total. Total, all companies.	Operating companies.	Lessor companies.
Assets, total	100.0	100.0	100.0
Cost of construction, equipment, and real estate	85.3	84.4	88.1
Stocks and bonds of other electric-railway companies	4.9	5.6	2.8
Treasury stocks and bonds	0.6	0.6	0.8
Other permanent investments	3.2	4.0	0.7
Cash on hand	0.6	0.7	0.3
Bills and accounts receivable	2.7	2.5	3.4
Supplies	0.7	0.9	(1)
Sundries	1.8	1.1	3.0
Liabilities, total	100.0	100.0	100.0
Capital stock	47.7	46.8	50.2
Funded debt	39.2	39.3	39.2
Real-estate mortgages	0.1	0.1	0.2
Floating debt	6.5	6.0	5.4
Reserves	0.6	0.8	(1)
Bills and accounts payable	2.1	2.6	0.7
Interest due and accrued	0.6	0.8	0.1
Dividends due	0.1	0.1	(1)
Sundries	1.4	1.3	1.5
Net surplus	1.7	1.3	2.8

[1] Less than one-tenth of 1 per cent.

Cost of construction and equipment during the year.—The amount reported for the cost of construction and equipment during the year 1907, shown in Tables 149 and 150, represents actual expenditures reported by going concerns; it does not include the cost of new roads that had not begun operation at the end of the census year.[1] The total expenditure of $184,918,453 as compared with $126,682,473 reported for 1902, shows an increase in the cost of new construction of $58,235,980, or 46 per cent. Expenditures for new construction and equipment were reported in 1907 by 816 companies, of which 756 were operating companies and 60 were lessor companies. In other words, 66.3 per cent of all companies reporting financial data reported new construction or equipment. For 1902 the cost of new construction and equipment reported was equal to 5.8 per cent of the total cost of construction and equipment, and for 1907, to 5.1 per cent. The larger part of this expenditure was made by operating companies, their expenditures of this class in 1907 amounting to 6.3 per cent of their total expenditures for construction and equipment, while the corresponding expenditures of the lessor companies for 1907 amounted only to 1.6 per cent. The cost of construction and equipment for the year was included in the total cost of construction and equipment, as presented in the balance-sheet statements; the value of unfinished new work, which is carried temporarily as a separate asset by some companies, was also included in the total cost of construction and equipment.

Balance sheet, by states.—Table 155 is a comparative summary of the balance sheets of all operating and lessor companies, by states and geographic divisions, for 1907 and 1902. It will be noticed that there are slight differences in the United States totals for 1902 for "Net deficit for states showing deficit" and "Net surplus for states showing surplus" given in this table and the corresponding totals published in the 1902 report. These differences result from a difference in the method of combining state totals in 1907 and 1902, respectively.

The gains have been proportionately greatest in the Western, South Central, and North Central divisions, in the order named. Ranked according to the per cent of increase, from 1902 to 1907, in total assets and liabilities, the 10 leading states are the following:

Ten leading states, ranked according to per cent of increase in assets and liabilities from 1902 to 1907.

State.	Per cent of increase.	State.	Per cent of increase.
Oregon	537.8	Washington	289.7
Mississippi	500.3	California	255.4
Kansas	372.8	Louisiana	251.4
Arkansas	330.2	Nebraska	191.1
Indiana	310.0	Virginia	169.0

The 10 leading states, ranked according to the absolute amount of increase in assets and liabilities, are the following:

Ten leading states, ranked according to amount of increase in assets and liabilities from 1902 to 1907.

State.	Amount of increase.	State.	Amount of increase.
New York	$231,451,906	Illinois	$129,832,400
California	210,997,729	Louisiana	60,538,962
Ohio	199,327,856	Washington	58,067,109
Pennsylvania	174,501,128	Massachusetts	42,710,350
Indiana	134,716,055	Wisconsin	39,442,718

[1] For statistics of railways under construction during the census year, see p. 27.

A condensation of the balance-sheet statistics gives a more comprehensive view than that offered by Table 155. The following table gives a condensed balance-sheet summary, by geographic divisions. On the assets side, the item "Permanent or other investments" includes, for both 1902 and 1907, the holdings of stocks and bonds of other railway companies and other permanent investments in nonrailway property; and for 1907 it also includes treasury stocks and bonds. The item "Current assets" includes, for both years, cash, bills and accounts receivable, supplies, and sundries. Among the liabilities, the item "Current liabilities" comprehends all liabilities other than surplus, and capital stock and funded debt, the latter two being grouped together under the head "Capitalization." The profit-and-loss surplus is in every case the net surplus.

TABLE 152.—CONDENSED NET BALANCE SHEET OF OPERATING AND LESSOR COMPANIES COMBINED, BY GEOGRAPHIC DIVISIONS: 1907 AND 1902.

DIVISION.	Census.	Number of companies.	Total, assets and liabilities.	ASSETS.			LIABILITIES.			Cost of construction and equipment during the year.
				Cost of construction, equipment, and real estate.	Permanent or other investments.	Current assets.	Capitalization.[1]	Current liabilities, including reserves.	Net profit-and-loss surplus.	
United States	1907	[2] 1,230	$4,203,861,592	$3,637,068,708	$374,064,197	$251,528,687	$3,704,940,296	$488,471,004	$70,444,292	$184,918,453
	1902	[3] 967	$2,533,847,258	$2,167,034,077	$152,513,997	$213,699,184	$2,240,995,711	$252,145,435	$40,706,112	$126,682,473
Per cent of increase		27.2	68.3	67.8	145.7	17.7	65.3	93.7	73.1	46.0
North Atlantic	1907	595	$1,822,724,806	$1,552,220,534	$118,016,055	$152,488,217	$1,535,055,178	$260,459,042	$27,210,586	$67,392,291
	1902	509	$1,294,803,331	$1,088,032,237	$72,094,643	$133,836,451	$1,095,406,398	$173,491,697	$25,905,236	$74,118,898
Per cent of increase		16.9	40.7	42.5	63.7	13.9	40.1	50.1	4.8	[4] 9.1
South Atlantic	1907	110	$288,032,714	$242,357,969	$32,955,988	$12,718,757	$260,023,079	$21,600,176	$6,409,459	$10,292,234
	1902	77	$175,131,636	$162,507,589	$6,093,844	$6,500,203	$167,107,079	$6,972,848	$1,051,709	$5,641,650
Per cent of increase		42.9	64.5	49.1	443.5	93.9	55.6	209.8	509.4	82.4
North Central	1907	340	$1,426,022,464	$1,251,383,729	$135,678,669	$38,960,066	$1,283,038,541	$121,528,961	$21,454,962	$60,013,038
	1902	248	$824,485,338	$705,553,933	$68,599,146	$50,332,259	$759,442,745	$57,348,903	$7,693,690	$36,140,029
Per cent of increase		37.1	73.0	77.4	97.8	[4] 22.6	68.9	111.9	178.9	66.1
South Central	1907	91	$247,911,745	$203,085,871	$35,461,790	$9,364,084	$219,253,647	$22,362,160	$6,295,938	$10,366,115
	1902	66	$103,263,411	$87,294,862	$1,866,741	$14,101,808	$93,569,900	$7,262,188	$2,431,323	$4,346,289
Per cent of increase		37.9	140.1	132.6	1,799.7	[4] 33.6	134.3	207.9	159.0	138.5
Western	1907	94	$479,169,863	$388,620,605	$52,551,695	$37,997,563	$407,575,851	$62,520,665	$9,073,347	$36,854,775
	1902	67	$136,103,542	$123,345,456	$3,889,623	$8,868,463	$125,469,589	$7,069,799	$3,564,154	$6,435,607
Per cent of increase		40.3	252.1	215.1	1,251.1	328.5	224.8	784.3	154.0	472.7

[1] Includes capital stock and funded debt.
[2] Exclusive of 6 companies which failed to furnish this information.
[3] Exclusive of 20 companies which failed to furnish this information.
[4] Decrease.

There is a regular progression in the rates of increase in total assets and liabilities of the several geographic divisions in the order in which they occur in the table, starting with an increase of 40.7 per cent for the North Atlantic division, and reaching 252.1 per cent for the Western division; the same progression appears also for cost of construction, equipment, and real estate, and for capitalization; which, respectively, constitute the major part of the assets and the liabilities.

In the matter of number of companies the rates of increase are nearly the same for the South Atlantic, North Central, South Central, and Western divisions, and in each of these divisions the rate is more than double that for the North Atlantic division. "Permanent or other investments" show gains in all divisions largely in excess, proportionately, of the gains in cost of construction, equipment, and real estate, and, although the largest absolute increase in "Permanent or other investments" was in the North Central division, the large rates of increase in this item were reported for the South Central and Western divisions. The increase in current assets in the states of the Western division exceeds that of any other division in both rate and amount.

On the liability side of the statement it will be seen that the current liabilities have increased in all divisions at a faster rate than the capitalization, with the highest rate of increase in the Western division.

The rate of increase in the profit-and-loss surplus is high for each of the divisions, with the exception of the North Atlantic. For the United States, this rate is slightly higher than the rate of increase in the total assets and liabilities, while for the South Atlantic division it largely exceeds the rates of increase for the other divisions.

The high rates of increase shown for the Western division in the several items included in the balance sheet appear also for the cost of new construction and equipment during the year, which showed a greater amount and rate of increase for 1907 as compared with 1902 in this division than in any other. In the North Atlantic division the cost of new construction was less in 1907 than in 1902.

The following percentage tables are presented to supplement the foregoing condensed balance-sheet summary. Table 153 gives the per cent distribution of the number of companies, the assets and liabilities, and the cost of new construction and equipment during the year, by geographic divisions, for 1907 and 1902; Table 154 gives the per cent distribution of the assets and liabilities of each geographic division, by condensed accounts for the same years.

TABLE 153.—PER CENT DISTRIBUTION OF CONDENSED ASSETS AND LIABILITIES, BY GEOGRAPHIC DIVISIONS: 1907 AND 1902.

DIVISION.	Census.	Number of companies.	PER CENT OF TOTAL FOR UNITED STATES.							
				Assets.			Liabilities.			
			Total assets and liabilities.	Cost of construction, equipment, and real estate.	Permanent or other investments.	Current assets.	Capitalization.[1]	Current liabilities, including reserves.	Net profit-and-loss surplus.	Cost of construction and equipment during the year.
United States	1907	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	1902	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
North Atlantic	1907	48.4	42.7	42.7	31.5	60.6	41.4	53.3	38.6	36.4
	1902	52.6	51.1	50.2	47.3	62.6	48.9	68.8	63.8	58.5
South Atlantic	1907	8.9	6.8	6.7	8.8	5.1	7.0	4.4	9.1	5.6
	1902	8.0	6.9	7.5	4.0	3.1	7.5	2.8	2.6	4.5
North Central	1907	27.6	33.4	34.4	36.2	15.5	34.6	24.9	30.5	32.5
	1902	25.5	32.5	32.5	45.0	23.6	33.9	22.7	18.9	28.5
South Central	1907	7.4	5.8	5.6	9.5	3.7	5.9	4.6	8.9	5.6
	1902	6.8	4.1	4.0	1.2	6.6	4.2	2.9	6.0	3.4
Western	1907	7.6	11.2	10.7	14.0	15.1	11.0	12.8	12.9	19.9
	1902	6.9	5.4	5.7	2.6	4.1	5.6	2.8	8.8	5.1

[1] Capital stock and funded debt.

TABLE 154.—PER CENT DISTRIBUTION, BY ACCOUNTS, OF CONDENSED ASSETS AND LIABILITIES, BY GEOGRAPHIC DIVISIONS: 1907 AND 1902.

DIVISION.	Census.	PER CENT OF TOTAL ASSETS AND LIABILITIES.							Cost of construction and equipment during the year; per cent of total cost of construction and equipment.
			Assets.			Liabilities.			
		Total assets and liabilities.	Cost of construction, equipment, and real estate.	Permanent or other investments.	Current assets.	Capitalization.[1]	Current liabilities, including reserves.	Net profit-and-loss surplus.	
United States	1907	100.0	85.3	8.8	5.9	86.9	11.5	1.7	5.1
	1902	100.0	85.5	6.0	8.4	88.4	10.0	1.6	5.8
North Atlantic	1907	100.0	85.2	6.5	8.4	84.2	14.3	1.5	4.3
	1902	100.0	84.1	5.6	10.3	84.6	13.4	2.0	6.8
South Atlantic	1907	100.0	84.1	11.4	4.4	90.3	7.5	2.2	4.2
	1902	100.0	92.8	3.5	3.7	95.4	4.0	0.6	3.5
North Central	1907	100.0	87.8	9.5	2.7	90.0	8.5	1.5	4.8
	1902	100.0	85.6	8.3	6.1	92.1	7.0	0.9	5.1
South Central	1907	100.0	81.9	14.3	3.8	88.4	9.0	2.5	5.1
	1902	100.0	84.5	1.8	13.7	90.6	7.0	2.4	5.0
Western	1907	100.0	81.1	11.0	7.9	85.1	13.0	1.9	9.5
	1902	100.0	90.6	2.9	6.5	92.2	5.2	2.6	5.2

[1] Capital stock and funded debt.

It appears from Table 153 that the North Atlantic division had a smaller proportion of the total number of companies in 1907 than in 1902, while all the other divisions had larger proportions; and the same is true of current liabilities, profit-and-loss surplus, and cost of new construction during the year. The North Central, South Central, and Western divisions show larger proportions of the total cost of construction, equipment, and real estate, and of capitalization reported, as well as of the total assets and liabilities, in 1907 than in 1902, while the percentages for the North Atlantic and South Atlantic divisions are smaller. The gains in relative importance for the Western division are noticeably large. Referring to Table 154, it will be seen that "Permanent or other investments" constituted a considerably increased proportion of the assets of electric-railway companies in all districts in 1907, and especially in the South Central, Western, and South Atlantic divisions. In this connection it must be recalled that treasury stock was included in this item in 1907, and excluded in 1902.

TABLE 155.—BALANCE SHEET, BY ACCOUNTS, OF OPERATING AND LESSOR COMPANIES

	STATE OR TERRITORY.	Census.	Number of companies.	ASSETS. Total.	Cost of construction, equipment, and real estate.	Stocks and bonds of other electric-railway companies.[1]	Treasury stocks and bonds.[2]	Other permanent investments.	Cash on hand.	Bills and accounts receivable.	Supplies.	Sundries.	Profit and loss—deficit for companies reporting deficit.	Net deficit for states showing deficit.
1	United States.	1907	[4] 1,230	$4,300,040,525	$3,637,668,708	$210,342,592	$27,553,501	$136,768,104	$26,456,137	$116,568,957	$30,811,390	$77,692,203	$36,178,933	$195,356
2		1902	[5] 967	2,545,132,305	2,107,634,077	.....	.....	152,513,997	28,021,853	22,448,700	10,610,928	152,617,703	11,285,047	1,087,290
3	North Atlantic division.	1907	595	1,844,919,859	1,552,220,534	79,636,934	8,481,359	29,897,762	13,101,337	75,540,528	12,951,881	50,894,471	22,195,053	103,341
4		1902	509	1,301,179,219	1,088,932,237	.....	.....	72,094,643	17,533,342	14,344,880	5,388,377	96,569,852	6,315,888	134,148
5	Me.	1907	17	23,185,409	21,413,212	3,139	.....	997,523	91,422	399,281	129,227	81,974	69,631	.....
6		1902	20	12,476,227	11,176,556	.....	.....	559,960	86,503	69,716	55,567	209,555	318,370	.....
7	N. H.	1907	18	8,045,201	7,848,816	.....	.....	.....	31,558	69,383	6,555	30,725	58,164	.....
8		1902	13	4,435,194	4,118,457	.....	.....	.....	177,579	108,629	6,636	20,163	3,730	.....
9	Vt.	1907	10	6,561,866	5,382,047	.....	.....	700,000	38,846	27,390	16,615	448	396,520	103,341
10		1902	9	3,203,339	2,850,460	.....	.....	.....	20,477	10,506	6,041	292,989	22,866	.....
11	Mass.	1907	81	164,338,000	149,681,514	188,500	2,000	926,329	2,564,026	5,952,233	3,124,730	942,883	955,785	.....
12		1902	92	121,627,050	109,782,044	.....	.....	212,011	3,302,901	1,387,588	1,451,677	5,085,058	406,371	.....
13	R. I.	1907	8	35,843,245	33,983,340	109,000	32,500	103,142	133,228	380,409	558,384	464,503	78,739	.....
14		1902	7	24,488,395	23,871,751	.....	.....	.....	38,443	147,373	160,607	1,589	268,632	.....
15	Conn.	1907	11	73,518,317	67,714,955	331,040	219,500	1,373,046	558,056	2,542,484	739,503	27,895	11,838	.....
16		1902	25	45,645,833	42,482,731	.....	.....	2,121,530	300,733	72,907	191,509	371,430	104,993	.....
17	N. Y.	1907	147	874,460,750	709,343,843	48,100,646	7,085,739	14,846,302	7,063,216	56,612,792	5,159,640	10,250,913	15,403,659	.....
18		1902	119	643,014,844	521,942,957	.....	.....	36,751,267	11,859,612	8,815,728	2,116,654	58,140,377	3,388,249	.....
19	N. J.	1907	41	170,111,489	161,901,839	2,832,180	.....	1,504,685	204,798	863,692	756,545	529,096	1,518,654	.....
20		1902	29	132,029,283	126,589,270	.....	.....	880,908	439,114	278,001	338,461	2,549,375	954,154	134,148
21	Pa.	1907	262	488,849,582	394,950,968	28,072,429	1,141,620	9,446,735	1,816,187	8,692,864	2,460,682	38,566,034	3,702,063	.....
22		1902	195	314,258,454	246,118,011	.....	.....	31,568,967	1,307,980	3,454,432	1,061,225	29,899,316	848,523	.....
23	South Atlantic division.	1907	110	289,306,640	242,357,969	12,838,587	825,551	10,291,850	2,297,616	5,128,346	1,750,004	3,542,791	1,273,932	92,015
24		1902	77	176,838,583	162,507,589	.....	.....	6,063,844	1,124,091	1,538,300	502,244	3,395,568	706,947	120,457
25	Del.	1907	7	6,956,858	6,622,029	.....	.....	.....	24,020	80,534	23,967	5,238	201,070	92,015
26		1902	3	5,289,910	5,104,476	.....	.....	.....	71,386	40,860	47,361	7,977	17,850	.....
27	Md. and D. C.	1907	21	134,872,527	115,631,297	5,612,807	505,350	8,562,724	989,587	1,073,553	406,764	1,265,969	824,386	.....
28		1902	20	98,769,988	96,148,894	.....	.....	30,000	432,639	499,884	171,497	898,371	588,703	103,643
29	Va.	1907	23	53,195,734	40,306,693	4,160,660	.....	5,056,010	931,089	1,278,357	387,772	990,872	84,281	.....
30		1902	16	19,773,297	15,414,124	.....	.....	3,284,535	236,557	598,200	30,732	151,552	57,597	.....
31	W. Va.	1907	18	25,587,022	22,087,542	2,255,659	84,000	147,073	51,268	187,194	32,608	655,835	85,843	.....
32		1902	8	10,005,352	9,039,281	.....	.....	244,819	106,805	5,976	4,529	601,492	2,450	.....
33	N. C.	1907	12	10,500,915	7,698,294	576,650	54,601	954,108	34,977	974,278	139,095	43,898	25,114	.....
34		1902	7	4,430,976	2,408,601	.....	.....	639,690	24,076	89,318	36,408	1,198,720	34,103	16,814
35	S. C.	1907	7	10,794,263	9,154,985	22,000	.....	1,274,500	49,191	188,514	72,544	30,548	1,981	.....
36		1902	7	6,089,525	4,523,752	.....	.....	1,730,000	8,244	58,631	45,693	316,961	6,244	.....
37	Ga.	1907	12	38,301,634	32,381,692	210,721	69,700	3,297,435	118,719	1,234,280	521,058	452,387	15,642	.....
38		1902	10	27,056,898	26,157,673	.....	.....	134,800	196,523	212,437	142,571	212,894	.....	.....
39	Fla.	1907	10	9,097,693	8,475,437	.....	112,000	.....	98,765	111,636	166,196	98,044	35,615	.....
40		1902	6	3,822,687	3,710,728	.....	.....	.....	47,861	32,994	23,453	7,601	.....	.....
41	North Central division.	1907	340	1,435,261,845	1,251,383,729	78,336,268	14,001,517	43,250,884	6,945,632	17,459,850	7,380,303	7,174,281	9,239,381	.....
42		1902	248	828,564,522	705,553,933	.....	.....	68,509,146	6,343,396	4,958,422	2,909,681	36,120,760	4,079,184	832,685
43	Ohio	1907	90	380,741,944	321,678,074	25,003,725	3,130,577	18,536,712	1,729,931	4,534,582	2,069,771	2,162,284	1,896,288	.....
44		1902	66	181,414,088	169,058,687	.....	.....	1,147,336	1,705,688	2,320,577	664,396	6,291,536	225,868	.....
45	Ind.	1907	43	178,170,550	166,387,274	740,675	1,607,740	5,297,988	607,456	1,572,190	563,989	650,802	742,436	.....
46		1902	20	43,454,495	39,420,184	.....	.....	10,435	371,275	107,448	170,915	3,241,044	133,194	.....
47	Ill.	1907	86	414,785,525	346,693,323	32,180,017	5,340,700	11,552,719	1,996,872	6,461,234	2,043,726	2,652,995	5,863,939	.....
48		1902	56	284,963,125	225,507,387	.....	.....	46,237,103	1,819,913	1,123,128	899,638	12,432,930	2,933,026	826,030
49	Mich.	1907	24	97,789,735	88,391,281	3,351,144	1,575,000	1,613,519	229,058	961,114	906,052	481,092	281,475	.....
50		1902	24	60,227,886	55,582,232	.....	.....	2,068,542	330,675	531,320	174,632	7,416,002	124,483	.....
51	Wis.	1907	20	70,777,446	47,775,012	16,237,000	560,000	3,147,046	142,983	1,924,258	221,327	588,364	181,456	.....
52		1902	17	31,334,728	29,350,238	.....	.....	708,756	225,314	333,118	338,740	367,214	2,348	.....
53	Minn.	1907	5	50,234,168	47,567,087	102,044	971,500	46,280	800,804	178,931	551,856	14,766	.....	.....
54		1902	5	40,016,285	39,278,860	.....	.....	.....	477,935	4,862	101,286	147,242	11,100	.....
55	Iowa.	1907	26	38,312,747	35,319,366	720,147	6,000	734,410	142,108	497,280	261,058	490,145	142,233	.....
56		1902	22	19,977,660	18,035,123	.....	.....	47,704	243,518	226,522	80,498	1,214,397	129,898	.....
57	Mo.	1907	14	162,272,428	156,852,689	.....	900,000	1,611,524	1,000,783	1,170,549	616,180	70,939	49,764	.....
58		1902	17	140,060,520	117,628,659	.....	.....	24,379,270	1,053,495	299,330	445,988	4,743,535	510,243	.....

[1] Not reported separately in 1902. Included in "Other permanent investments" at that census.
[2] Not reported in 1902.
[3] Not reported separately in 1902. Probably included in "Bills and accounts payable" and "Sundries" at that census.

COMBINED, BY STATES AND GEOGRAPHIC DIVISIONS: 1907 AND 1902.

LIABILITIES.													
Total.	Capital stock.	Funded debt.	Real-estate mortgages.[4]	Floating debt.[5]	Reserves.[5]	Bills and accounts payable.	Interest due and accrued.	Dividends due.	Sundries.	Profit and loss—surplus for companies reporting surplus.	Net surplus for states showing surplus.	Cost of construction and equipment during the year.	
$4,300,040,525	$2,031,980,360	$1,672,959,930	$4,059,805	$278,927,097	$27,222,471	$91,241,278	$25,317,196	$3,909,390	$57,793,767	$106,623,225	$70,639,648	$184,918,453	1
2,545,132,305	1,266,883,289	974,112,422	.....	.....	.....	101,704,634	14,497,670	2,543,823	133,399,308	51,991,159	41,793,402	126,682,473	2
1,844,019,859	847,038,114	688,017,064	2,045,810	144,590,176	7,157,735	51,030,883	8,176,817	2,070,647	44,786,974	49,405,639	27,313,927	67,392,291	3
1,301,179,219	639,158,333	456,248,065	.....	.....	.....	58,875,280	6,756,430	847,450	107,012,537	32,281,124	26,099,384	74,118,898	4
23,185,409	10,944,713	11,039,000	37,732	226,441	54,114	474,536	69,542	18,797	14,865	305,669	236,038	725,914	5
12,476,227	5,053,055	6,155,000	.....	.....	.....	746,799	60,967	.....	80,499	379,907	61,537	1,181,015	6
8,045,201	4,518,700	2,589,000	.....	418,622	54,430	35,001	78,879	.....	86,961	263,608	205,444	797,794	7
4,435,194	2,333,200	1,556,000	.....	.....	.....	275,582	4,096	.....	174,207	92,109	88,379	226,423	8
6,561,866	3,370,000	2,548,667	.....	114,840	618	141,483	92,724	.....	355	293,179	.....	903,352	9
3,203,339	1,835,100	931,000	.....	.....	.....	66,201	23,313	1,650	310,621	34,854	11,988	72,392	10
164,338,000	74,397,675	60,279,000	229,800	13,225,690	237,850	5,075,670	958,188	867,964	5,190,439	3,875,724	2,919,939	8,662,402	11
121,627,650	59,378,602	37,966,942	.....	.....	.....	16,241,821	251,987	337,736	5,066,355	2,384,207	1,977,836	12,821,331	12
35,843,245	24,555,400	7,070,200	.....	873,702	1,216,534	226,840	41,667	.....	111	1,858,791	1,780,052	1,100,611	13
24,488,395	16,375,000	6,221,200	.....	.....	.....	1,265,385	60,857	.....	6,492	559,461	290,829	1,675,228	14
73,518,317	20,371,900	47,081,091	1,500	466,423	110,301	2,838,416	30,321	.....	136,303	2,482,062	2,470,224	3,655,219	15
45,645,833	25,211,640	17,433,500	.....	.....	.....	1,984,704	128,330	.....	298,491	589,168	484,175	1,333,893	16
874,466,750	377,957,549	336,447,138	1,711,313	76,254,781	2,260,944	28,131,907	5,165,366	1,005,630	20,921,020	24,611,102	9,207,443	27,688,063	17
643,014,844	276,209,172	252,929,373	.....	.....	.....	23,423,952	3,798,284	318,151	69,296,706	17,039,206	13,650,957	36,278,382	18
170,111,489	71,811,380	86,260,500	252,453	2,029,979	2,695,006	2,041,063	688,429	4,060	2,236,952	2,091,667	573,013	4,537,796	19
132,029,283	69,333,440	57,490,750	.....	.....	.....	2,994,778	409,014	4,827	976,468	820,006	.....	9,437,053	20
488,849,582	250,110,797	134,702,468	413,012	50,979,698	527,938	12,065,967	1,051,701	174,196	16,199,968	13,623,837	9,921,774	19,321,140	21
314,258,454	183,429,124	75,563,700	.....	.....	.....	11,876,058	2,019,582	185,086	30,802,698	10,382,206	9,533,683	11,093,181	22
289,306,646	108,341,030	151,682,049	76,900	13,753,682	1,332,554	3,773,822	1,683,520	78,827	900,871	7,683,391	6,501,474	10,292,234	23
175,838,583	66,887,171	100,219,908	.....	.....	.....	4,431,232	1,165,985	126,092	1,249,539	1,758,656	1,172,166	5,641,650	24
6,956,858	2,901,995	3,070,000	15,000	731,983	.....	12,070	28,750	52,000	36,005	109,055	.....	89,163	25
5,289,910	2,264,990	2,424,000	.....	.....	.....	523,953	10,920	.....	30,408	35,639	17,789	1,045,456	26
134,872,527	48,469,050	79,319,709	12,900	3,153,742	792,688	798,949	995,746	2,000	285,597	1,042,146	217,760	1,716,407	27
98,769,988	33,579,556	61,639,194	.....	.....	.....	1,669,493	766,899	107,428	522,363	485,060	.....	1,924,761	28
53,195,734	14,926,650	30,667,490	25,000	2,994,184	209,744	1,613,427	372,069	15,000	209,807	2,162,363	2,078,082	3,778,725	29
19,773,297	7,277,000	11,019,314	.....	.....	.....	889,005	118,043	18,069	242,225	209,641	152,044	605,059	30
25,587,022	10,704,075	10,406,500	.....	2,923,084	12,795	255,681	77,904	.....	19,383	1,187,600	1,101,757	821,756	31
10,005,352	4,273,600	5,308,400	.....	.....	.....	262,527	12,301	.....	12,752	135,772	133,322	734,039	32
10,500,915	4,409,800	3,887,750	.....	1,115,631	67,671	176,629	37,440	.....	181,904	624,090	598,976	981,691	33
4,430,976	1,995,625	1,880,500	.....	.....	.....	392,630	60,730	.....	84,202	17,289	.....	253,248	34
10,794,263	3,984,200	4,766,000	.....	1,330,420	114,482	157,575	49,465	.....	26,839	365,282	363,301	291,162	35
6,689,525	2,589,400	3,336,000	.....	.....	.....	445,384	29,737	.....	213,538	75,466	69,222	308,214	36
38,301,634	18,110,400	16,789,600	24,000	896,638	133,630	623,727	66,626	9,827	39,386	1,607,800	1,592,158	1,273,929	37
27,056,898	12,957,600	13,081,500	.....	.....	.....	163,931	54,943	.....	127,358	671,566	671,566	673,406	38
9,097,693	4,834,860	2,775,000	.....	608,000	1,544	135,764	55,520	.....	101,950	585,055	549,440	1,339,401	39
3,822,637	1,949,400	1,531,000	.....	.....	.....	84,309	112,412	600	16,693	128,223	128,223	97,467	40
1,435,261,845	715,888,841	567,149,700	1,169,636	65,086,960	14,283,831	22,130,950	9,182,658	941,523	8,733,403	30,694,343	21,454,962	60,013,038	41
828,564,522	438,428,419	321,014,326	.....	.....	.....	29,626,683	4,634,617	1,253,584	21,834,019	11,772,874	8,526,375	36,140,029	42
380,741,944	226,845,875	116,289,000	755,200	16,405,303	3,074,621	5,643,372	1,826,863	343,285	2,245,502	7,312,923	5,416,635	10,440,831	43
18,414,088	108,638,650	60,942,000	.....	.....	.....	6,441,750	450,290	175,353	2,349,156	2,416,889	2,191,021	11,962,321	44
178,170,550	94,223,970	72,063,350	20,598	3,998,891	461,818	2,175,159	763,799	82,037	1,102,548	3,278,380	2,535,944	9,728,552	45
43,454,495	16,635,028	21,550,760	.....	.....	.....	3,091,924	102,640	8,015	1,664,308	401,820	268,626	1,891,946	46
414,785,525	200,154,400	167,379,400	362,938	19,364,681	4,425,919	6,500,012	3,738,971	19,024	4,088,753	8,751,427	2,887,488	21,440,877	47
234,953,125	158,713,616	97,885,267	.....	.....	.....	8,766,905	2,084,693	300,673	15,094,975	2,106,996	.....	13,670,690	48
97,789,735	38,607,400	48,625,000	1,800	3,928,216	716,650	2,380,887	417,375	175	115,999	2,995,333	2,713,858	2,360,815	49
66,227,886	29,033,100	32,596,800	.....	.....	.....	2,838,408	539,992	132,234	113,384	973,968	849,485	1,750,484	50
70,777,446	29,864,400	32,208,250	.....	969,827	2,325,293	2,763,105	459,622	45,583	192,619	1,948,747	1,767,291	6,554,760	51
31,334,728	15,178,600	13,058,350	.....	.....	.....	1,100,953	204,298	69,667	589,926	1,132,934	1,130,586	1,826,050	52
50,234,168	23,905,000	20,912,500	28,800	1,525,500	1,431,891	518,687	315,195	251,250	421,062	924,283	924,283	1,909,672	53
40,016,285	23,280,000	13,226,000	.....	.....	.....	122,908	229,928	300,200	67,639	2,789,610	2,778,510	1,044,300	44
38,312,747	20,693,046	12,804,500	.....	1,787,921	121,459	594,177	120,430	.....	173,667	2,017,547	1,875,314	2,636,907	55
19,977,660	10,541,200	6,770,333	.....	.....	.....	1,338,918	73,101	1,616	62,956	1,189,536	1,059,638	1,578,741	56
162,272,428	58,819,400	80,836,000	.....	16,701,747	913,861	1,124,786	1,318,954	173,671	151,849	2,232,160	2,182,396	2,985,019	57
149,000,520	68,234,100	71,474,816	.....	.....	.....	5,760,149	948,259	206,621	1,868,298	568,277	58,034	2,167,875	58

[4] Exclusive of 6 companies which failed to furnish this information.
[5] Exclusive of 20 companies which failed to furnish this information.

TABLE 155.—BALANCE SHEET, BY ACCOUNTS, OF OPERATING AND LESSOR COMPANIES

	STATE OR TERRITORY.	Census.	Number of companies.	ASSETS. Total.	Cost of construction, equipment, and real estate.	Stocks and bonds of other electric-railway companies.[1]	Treasury stocks and bonds.[2]	Other permanent investments.	Cash on hand.	Bills and accounts receivable.	Supplies.	Sundries.	Profit and loss—deficit for companies reporting deficit.	Net deficit for states showing deficit.
	North Central division—Con.													
59	N. and S. Dak.[4]	1907	5	$844,716	$831,358	.....	.....	.....	$8,507	$3,088	$1,668	$95	.....	.....
60	Nebr.	1907	10	25,041,686	25,050,412	$1,516	.....	$159,563	208,231	111,936	105,491	4,537	.....	.....
61		1902	4	8,807,086	8,599,242	.....	.....	.....	100,961	9,175	19,209	76,654	$1,845	.....
62	Kans.	1907	17	15,690,900	14,836,958	.....	.....	551,123	78,899	44,688	39,185	58,262	81,790	.....
63		1902	11	3,318,649	3,089,321	.....	.....	.....	14,622	2,942	14,379	190,206	7,170	$6,655
64	South Central division.	1907	91	248,452,559	203,085,871	16,071,758	$980,757	18,403,275	1,512,788	4,517,381	1,538,319	1,795,596	540,814	.....
65		1902	66	103,328,636	87,294,862	.....	.....	1,866,741	990,545	770,481	423,137	11,917,645	65,225	.....
66	Ky.	1907	13	36,044,673	34,693,140	.....	1,000	383,262	166,090	384,049	304,285	68,620	44,227	.....
67		1902	12	25,230,786	22,850,276	.....	.....	40,928	333,415	43,307	139,698	1,810,241	21,921	.....
68	Tenn.	1907	9	40,163,467	38,731,679	100,000	.....	170,000	391,632	119,447	255,912	394,156	641	.....
69		1902	8	18,142,307	16,931,576	.....	.....	582,015	64,557	491,804	62,046	9,187	1,122	.....
70	Ala.	1907	10	31,014,117	27,189,353	32,655	210,000	2,455,800	122,348	448,160	251,700	116,497	187,604	.....
71		1902	9	15,451,927	13,999,633	.....	.....	940,116	78,370	94,304	38,101	278,705	13,638	.....
72	Miss.	1907	8	8,669,208	6,777,857	.....	.....	1,270,907	34,979	104,811	31,413	431,123	18,118	.....
73		1902	5	1,444,119	1,268,084	.....	.....	114,196	11,196	5,928	2,390	40,540	1,785	.....
74	La.	1907	12	84,623,049	52,216,789	15,939,103	.....	12,668,131	347,198	2,854,647	177,843	382,818	36,520	.....
75		1902	8	24,084,087	14,282,507	.....	.....	.....	243,853	97,891	103,909	9,329,908	25,950	.....
76	Ark.	1907	8	10,761,028	9,042,616	.....	139,000	1,213,780	29,905	149,666	88,872	72,789	24,400	.....
77		1902	7	2,501,330	2,207,346	.....	.....	40,486	27,268	6,106	11,149	208,975	.....	.....
78	Okla.[5]	1907	8	6,715,740	6,034,862	.....	8,357	214,561	13,573	223,475	101,870	76,304	42,738	.....
79	Tex.	1907	23	30,461,268	28,309,575	.....	628,400	26,834	407,068	233,126	326,415	253,289	186,566	.....
80		1902	17	16,465,080	15,755,440	.....	.....	140,000	231,886	31,141	65,784	240,029	800	.....
81	Western division	1907	94	482,099,616	388,620,605	23,459,045	3,168,317	25,924,333	2,598,764	13,922,852	7,190,883	14,285,064	2,929,753	.....
82		1902	67	136,221,345	123,345,456	.....	.....	3,889,623	2,030,479	836,617	1,387,489	4,613,878	117,803	.....
83	Mont.	1907	5	4,949,708	3,191,227	.....	24,920	1,557,177	19,334	71,373	74,923	9,115	1,639	.....
84		1902	5	3,748,096	3,228,562	.....	.....	.....	46,521	37,782	22,589	347,107	65,565	.....
85	Colo.	1907	11	41,299,507	28,039,230	11,303,700	399,000	138,572	307,301	588,936	400,549	83,223	38,996	.....
86		1902	7	16,820,646	16,174,735	.....	.....	210,062	149,637	39,298	115,097	121,850	9,967	.....
87	Wash.	1907	15	78,110,935	64,863,788	2,518,863	1,080,869	2,845,957	877,317	3,253,448	1,334,094	822,404	514,195	.....
88		1902	8	20,043,826	18,574,439	.....	.....	191,793	406,694	234,894	274,026	361,980	.....	.....
89	Oreg.	1907	8	41,866,855	21,485,428	9,012,500	.....	8,931,170	225,020	1,667,691	461,568	83,478	.....	.....
90		1902	6	6,563,703	6,235,570	.....	.....	.....	89,601	8,680	89,341	118,864	21,737	.....
91	Cal.	1907	42	293,600,279	251,692,790	623,982	1,063,000	11,950,957	1,060,472	8,165,049	4,180,313	12,697,587	2,165,529	.....
92		1902	35	82,602,550	74,624,168	.....	.....	1,805,168	1,186,782	515,963	832,641	3,632,077	5,751	.....
93	All other Western states and territories.[6]	1907	13	22,272,332	19,348,142	.....	600,528	500,500	109,320	175,755	739,436	589,257	209,394	.....
94		1902	6	6,442,434	4,508,012	.....	.....	1,082,600	151,244	.....	53,795	32,000	14,783	.....
95	Hawaii and Porto Rico.[7]	1907	4	4,231,234	3,945,062	56,300	.....	.....	27,021	87,249	67,159	48,443	.....	.....
96		1902	5	3,502,875	2,181,593	.....	.....	332,314	102,950	64,868	31,950	778,161	11,039	.....

[1] Not reported separately in 1902. Included in "Other permanent investments" at that census.
[2] Not reported in 1902.
[3] Not reported separately in 1902. Probably included in "Bills and accounts payable" and "Sundries" at that census.
[4] No company reported in 1902 for North Dakota, and the 1 company in South Dakota in 1902 failed to furnish this information.

COMBINED, BY STATES AND GEOGRAPHIC DIVISIONS: 1907 AND 1902—Continued.

LIABILITIES.													
Total.	Capital stock.	Funded debt.	Real-estate mortgages.[5]	Floating debt.[3]	Reserves.[3]	Bills and accounts payable.	Interest due and accrued.	Dividends due.	Sundries.	Profit and loss—surplus for companies reporting surplus.	Net surplus for states showing surplus.	Cost of construction and equipment during the year.	
$844,716	$384,980	$300,000	.....	$95,100	.....	$25,816	.....	.....	.....	$38,820	$38,820	$6,393	59
25,641,686	13,864,585	9,540,000	$300	133,203	$791,080	274,783	$193,509	$17,498	$211,817	614,911	614,911	924,736	60
8,807,086	6,012,125	2,395,000	.....	.....	.....	127,436	.....	59,205	21,000	192,320	190,475	211,689	61
15,090,000	8,525,785	6,190,800	.....	176,571	21,239	130,166	27,940	9,000	29,587	579,812	498,022	1,024,476	62
3,318,649	2,162,000	1,115,000	.....	.....	.....	37,332	1,416	.....	2,377	524	.....	35,933	63
248,452,559	119,667,530	99,586,117	74,357	13,448,532	672,320	4,158,927	2,035,429	813,648	1,158,947	6,836,752	6,295,938	10,366,115	64
103,328,636	50,335,800	43,234,100	.....	.....	.....	5,357,052	880,042	199,744	825,350	2,496,548	2,431,323	4,346,289	65
36,044,673	16,047,400	15,726,000	16,000	1,905,019	157,514	743,073	348,630	31,250	32,071	1,037,716	993,489	1,223,994	66
25,239,786	11,330,900	12,204,300	.....	.....	.....	284,044	294,275	77,250	168,027	880,990	859,069	371,058	67
40,103,467	17,499,100	19,348,000	.....	1,359,193	198,391	364,037	455,240	.....	321,105	618,401	617,760	2,116,219	68
18,142,307	8,160,400	8,686,400	.....	.....	.....	908,620	31,620	.....	88,991	266,276	265,154	1,173,083	69
31,014,117	12,980,900	15,181,667	1,000	1,076,822	93,985	400,080	228,784	107,136	372,821	480,922	293,318	991,621	70
15,451,927	7,096,900	6,678,500	.....	.....	.....	599,152	133,272	2,000	48,343	293,760	280,122	1,329,516	71
8,669,208	3,937,880	3,502,500	.....	704,826	54,584	120,457	80,745	.....	121,051	147,105	129,047	522,292	72
1,444,119	620,500	644,000	.....	.....	.....	134,028	8,212	.....	8,070	22,709	20,924	311,417	73
84,623,049	46,839,700	29,145,000	.....	3,152,754	75,406	1,716,710	679,567	588,671	155,975	2,269,266	2,232,746	1,260,258	74
24,084,087	12,484,900	10,010,000	.....	.....	.....	201,257	289,200	114,203	259,547	634,980	609,021	490,546	75
10,761,028	4,845,600	4,453,000	.....	687,617	9,908	153,820	53,601	.....	39,541	517,941	493,541	439,872	76
2,591,330	885,300	1,058,000	.....	.....	.....	180,425	32,590	.....	242,025	102,990	102,990	82,272	77
6,715,749	4,145,800	2,029,000	.....	46,000	72,365	268,858	7,846	.....	21,602	124,278	81,540	1,858,103	78
30,461,268	13,371,150	10,200,950	57,357	4,516,301	10,167	301,892	181,016	86,591	94,781	1,641,063	1,454,497	1,953,696	79
16,465,080	9,150,000	3,052,900	.....	.....	.....	2,958,926	90,873	6,291	10,347	294,843	294,043	688,307	80
482,099,616	241,050,851	166,525,000	93,102	42,047,747	3,776,031	10,146,696	4,238,772	4,745	2,213,572	12,003,100	9,073,347	36,854,775	81
136,221,345	72,073,566	53,396,023	.....	.....	.....	3,414,387	1,060,596	116,953	2,477,803	3,681,957	3,564,154	6,435,607	82
4,949,708	2,781,275	1,550,000	.....	81,418	14,715	22,916	18,842	.....	1,097	479,445	477,806	103,733	83
3,748,096	2,045,613	1,275,000	.....	.....	.....	984	134,750	.....	124,556	167,193	101,628	65,320	84
41,299,507	17,998,500	19,450,000	.....	931,932	250,315	503,638	267,840	1,610	170,097	1,725,575	1,686,579	874,712	85
16,820,646	7,362,804	8,295,560	.....	.....	.....	418,881	239,493	.....	138,848	365,060	355,093	402,023	86
78,110,935	40,454,900	23,414,000	.....	8,918,612	3,460	1,262,163	385,996	.....	339,457	3,332,338	2,818,143	11,497,826	87
20,043,826	10,636,400	7,747,813	.....	.....	.....	845,156	121,355	.....	137,717	555,385	555,385	3,299,615	88
41,866,855	22,428,900	16,599,000	40,000	1,231,764	.....	606,826	271,482	.....	31,775	657,108	657,108	1,505,142	89
6,563,793	2,788,550	2,737,000	.....	.....	.....	214,452	26,890	.....	142,536	654,365	632,628	330,939	90
293,600,279	147,734,600	96,812,400	53,102	28,502,698	3,507,532	7,341,483	3,108,233	3,135	1,571,146	4,965,950	2,800,421	21,266,334	91
82,602,550	40,022,099	30,529,500	.....	.....	.....	1,650,635	538,108	116,953	1,934,206	1,811,049	1,805,298	2,164,805	92
22,272,332	9,652,676	8,699,600	.....	2,381,323	.....	409,670	186,379	.....	100,000	842,684	633,290	1,547,028	93
6,442,434	3,218,100	2,811,150	.....	.....	.....	284,279	.....	.....	.....	128,905	114,122	172,905	94
4,231,234	1,846,400	1,604,786	.....	365,723	81,384	17,328	45,427	4,592	11,862	253,732	253,732	149,818	95
3,502,875	2,021,340	1,103,800	.....	.....	.....	55,276	20,146	2,899	109,083	130,331	119,292	310	96

[5] No company reported in 1902.
[6] Includes states and territories as follows: 1907—Arizona, 4; Idaho, 2; Nevada, 1; New Mexico, 2; Utah, 4. 1902—Arizona, 1; Idaho, 1; New Mexico, 1; Utah, 3.
[7] Includes companies as follows: 1907—Hawaii, 1; Porto Rico, 3. 1902—Hawaii, 3; Porto Rico, 2.

CHAPTER VIII.

EMPLOYEES, SALARIES, AND WAGES.

The statistics relate to salaried employees and to all wage-earners engaged in the maintenance or operation of power plants and rolling stock, in the maintenance of track and roadway and overhead lines, and in the operation of the commercial light and power plants of the railways. They do not include persons employed exclusively on new extension work.

The wage-earners have been separated by occupation into seventeen classes, but the separation can not be accepted as exact, because often among the small and medium-sized companies an employee acts in two or more capacities, and in the returns the assignment to an occupation was made according to the opinion of the person who furnished the information for the census report. The classification "Other mechanics" includes, in some instances, employees working some part of the year in one or more of the specified occupations. A few companies included their commercial electric light and power-plant workers among "Other employees" instead of distributing them by occupations. The total of the numbers reported for each occupation represents the total number employed, and the number is very nearly correct in the case of well-defined occupations, such as those of conductors and motormen.

In a few instances, where electric railways were operated by steam-railroad companies or by corporations engaged in other lines of business, it was impossible to ascertain the exact number of employees engaged in the electric branch of their work or to apportion accurately the salaries and wages paid to such employees. Such cases, however, are not sufficient in number or importance to affect the totals seriously.

In 1907 the class specified "Car and motor repairers" was added to the list of specified occupations, and the class "Lamp trimmers," which was used in 1902, was dropped. Wage-earners reported for the latter group in 1902 are included with "Other employees" in all of the comparative tables. It is probable that "Car and motor repairers" were reported in 1902 among "Electricians," "Mechanics," and "Other employees," but as it is impossible to separate them in the reports for that year, no comparison of this class can be made for the two censuses.

Only 6 companies, with 292.95 miles of track, failed to report the number of their employees in 1907; while in 1902, 20 companies, with 417.03 miles of track, did not furnish such statistics.

The inquiry "Number of employees at specified daily rates of pay," which formed a part of the general inquiry at the census of 1902, was omitted from the schedule in 1907. At both censuses the inquiry called separately for the average number of salaried employees and wage-earners employed during the year. Where the reporting company did not operate its line during the entire year, it was instructed to calculate an average on the basis of a year. For instance, if a company was in operation only six months and employed 36 men regularly, the average for the year would be 18. The number of companies operating only a part of the year 1907 was 55, with 1,297 employees; in 1902 there were 57 such companies, with 2,066 employees. Some of these companies evidently reported the number required to operate the system under normal conditions instead of the number obtained by calculations made according to the method described. But in comparison with the totals—221,429 in 1907 and 140,769 in 1902—for all companies reporting, the number of these short-time employees is so insignificant as to have little effect.

The difficulties in the way of ascertaining a true average number are so great that it is believed the number representing the sum of the averages reported is not sufficiently accurate to justify its use for the computation of the average annual earnings.[1]

Allowance for board or rent, if any, was included with the salaries and wages reported.

Conductors and motormen were numerically the most important classes of electric-railway employees, and they received more than one-half of the total amount paid in salaries and wages. With the exception of "Hostlers, stablemen, etc.," which class shows a decrease because of the continued disappearance of railways, repair wagons, etc., operated by animal power, every class of employees shows an increase in both number and wages.

The percentage of increase in the amount paid in salaries or wages is higher for every occupation than the percentage of increase in the number employed, from which fact it may be inferred that there has been

[1] Special reports of the Bureau of the Census, 1905, Manufactures, Part I, p. lxxxix.

an increase in average earnings, although the exact extent of the increase can not be determined from the statistics.

TABLE 156.—*Employees, salaries, and wages of operating companies, by classes of occupations: 1907 and 1902.*

CLASS.	1907	1902	Per cent of increase.
Number of companies	[1] 939	[2] 797	17.8
Salaried employees:			
Total number	11,700	7,128	64.1
Total salaries	$12,909,466	$7,439,716	73.5
Officers of corporations—			
Number	1,518	1,480	2.6
Salaries	$3,852,252	$2,990,745	28.8
Managers, superintendents, etc.—			
Number	2,094	1,327	57.8
Salaries	$3,580,307	$1,819,166	96.8
Clerks and bookkeepers—			
Number	8,088	4,321	87.2
Salaries	$5,476,847	$2,629,805	108.3
Wage-earners:			
Total average number	209,729	133,641	56.9
Total wages	$138,081,033	$80,770,449	71.0
Foremen—			
Average number	3,582	1,782	101.0
Wages	$3,344,170	$1,518,400	120.2
Inspectors—			
Average number	1,850	1,095	68.9
Wages	$1,617,390	$852,629	89.7
Conductors—			
Average number	60,032	40,141	49.6
Wages	$38,234,158	$24,025,204	59.1
Motormen—			
Average number	55,486	40,003	38.7
Wages	$37,470,896	$24,617,155	52.2
Starters—			
Average number	1,442	960	50.2
Wages	$1,159,034	$721,031	60.7
Switchmen—			
Average number	1,808	1,198	50.9
Wages	$1,179,440	$728,975	61.8
Road and track men—			
Average number	22,401	11,474	95.2
Wages	$12,368,696	$5,511,425	124.4
Linemen—			
Average number	3,666	2,288	60.2
Wages	$2,831,897	$1,553,478	82.3
Electricians—			
Average number	1,525	1,150	32.6
Wages	$1,384,061	$901,524	53.5
Car and motor repairers—			
Average number	13,476	([3])	.....
Wages	$9,200,149	([3])	.....
Engineers—			
Average number	1,948	1,751	11.3
Wages	$1,923,084	$1,527,793	25.9
Dynamo and switchboard men—			
Average number	1,963	1,167	68.2
Wages	$1,433,304	$761,304	88.3
Firemen—			
Average number	3,282	2,694	21.8
Wages	$2,309,819	$1,735,647	33.1
Other mechanics—			
Average number	11,264	9,197	22.5
Wages	$8,034,588	$6,312,119	27.3
Hostlers, stablemen, etc.—			
Average number	1,132	1,345	[4] 15.8
Wages	$732,795	$813,425	[4] 9.9
Watchmen—			
Average number	1,454	921	57.9
Wages	$789,181	$497,103	58.8
All other employees—			
Average number	23,418	16,475	42.1
Wages	$14,068,971	$8,693,237	61.8

[1] Exclusive of 6 companies which failed to furnish this information.
[2] Exclusive of 20 companies which failed to furnish this information.
[3] Not reported separately.
[4] Decrease.

In the percentage of increase "Clerks and bookkeepers" led among salaried employees in both number and salaries, while among wage-earners "Foremen" were first in number and "Road and track men" in wages.

At the census of 1902 the wages paid to conductors and motormen constituted 55.1 per cent of the total salaries and wages, and the amount was almost equally divided between the two classes, a slightly larger share going to motormen. But the increase in interurban roads and subways has so changed the relative distribution of the force that the wages of conductors and motormen in 1907 formed only 50.1 per cent of the total, while the proportion paid conductors (25.3 per cent) slightly exceeded that for motormen (24.8 per cent). In 1907 the next largest class, aside from the group of "Other employees," was "Road and track men," for which the proportion of the total salaries and wages received was 8.2 per cent.

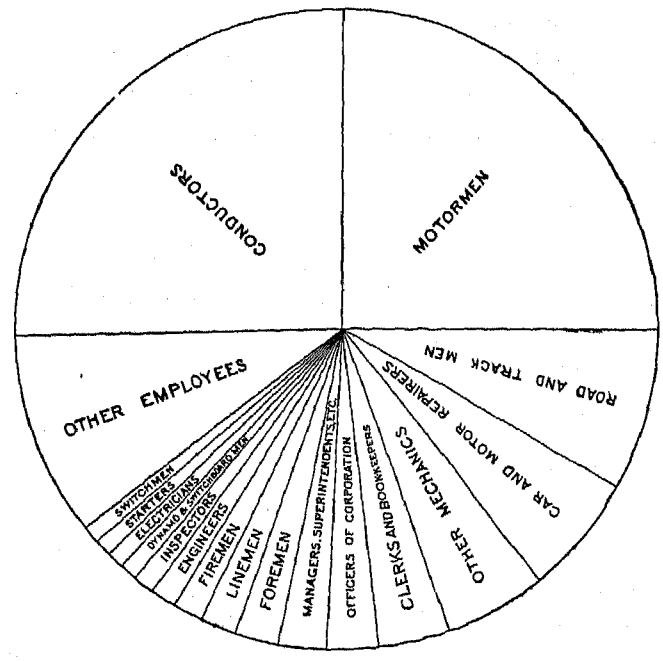
TABLE 157.—*Per cent distribution of total salaries and wages of operating companies, by classes of occupations: 1907 and 1902.*

CLASS.	1907	1902
Total	100.0	100.0
Officers of corporations	2.6	3.4
Managers, superintendents, etc	2.4	2.1
Clerks and bookkeepers	3.6	3.0
Foremen	2.2	1.7
Inspectors	1.1	1.0
Conductors	25.3	27.2
Motormen	24.8	27.9
Starters	0.8	0.8
Switchmen	0.8	0.8
Road and track men	8.2	6.2
Linemen	1.9	1.8
Electricians	0.9	1.0
Car and motor repairers	6.1	([1])
Engineers	1.3	1.7
Dynamo and switchboard men	0.9	0.9
Firemen	1.5	2.0
Other mechanics	5.3	7.2
Hostlers, stablemen, etc	0.5	0.9
Watchmen	0.5	0.6
All other employees	9.3	9.9

[1] Not reported separately.

The 1907 percentages given in Table 157 are graphically expressed by the following diagram:

DIAGRAM 7.—*Salaries and wages, by classes of employees: 1907.*



The rank of the geographic divisions in the percentages of increase was the same for the number and the salaries of the salaried employees. The Western division had the largest percentages, followed by the South Central, South Atlantic, North Central, and North Atlantic divisions. This same order

is shown for the percentages of increase in number and amount paid wage-earners, except that the North Central division ranked third and the South Atlantic division was fourth.

TABLE 158.—EMPLOYEES, SALARIES, AND WAGES OF OPERATING COMPANIES, BY GEOGRAPHIC DIVISIONS: 1907 AND 1902.

DIVISION.	Census.	Number of companies.	SALARIED EMPLOYEES. Number.	SALARIED EMPLOYEES. Salaries.	WAGE-EARNERS. Total. Average number.	WAGE-EARNERS. Total. Wages.	WAGE-EARNERS. Conductors. Average number.	WAGE-EARNERS. Conductors. Wages.	WAGE-EARNERS. Motormen. Average number.	WAGE-EARNERS. Motormen. Wages.	WAGE-EARNERS. All other. Average number.	WAGE-EARNERS. All other. Wages.	PER CENT OF TOTAL. Salaried employees. Number.	PER CENT OF TOTAL. Salaried employees. Salaries.	PER CENT OF TOTAL. Wage-earners. Average number.	PER CENT OF TOTAL. Wage-earners. Wages.
United States	1907	[1] 939	11,700	$12,909,406	209,729	$138,081,033	60,032	$38,234,158	55,486	$37,470,896	94,211	$62,376,579	100.0	100.0	100.0	100.0
	1902	[2] 797	7,128	7,439,716	133,041	80,770,449	40,141	24,026,204	40,003	24,617,155	53,497	32,128,090	100.0	100.0	100.0	100.0
Per cent of increase		17.8	64.1	73.5	56.9	71.0	49.6	59.1	38.7	52.2	76.1	94.1	.....	.....	.....	.....
North Atlantic	1907	365	4,854	4,933,889	102,749	66,800,195	29,886	18,211,917	26,178	17,512,024	46,685	31,135,354	41.5	38.2	49.0	48.4
	1902	355	3,501	3,449,030	72,427	43,827,514	21,681	12,991,395	21,537	13,323,021	29,209	17,513,098	49.1	46.4	54.2	54.3
Per cent of increase		2.8	38.6	43.1	41.9	52.6	37.8	40.2	21.5	31.4	59.8	77.8	.....	.....	.....	.....
South Atlantic	1907	100	1,002	1,102,053	14,042	7,960,754	3,906	2,187,020	3,996	2,252,678	6,140	3,521,056	8.6	9.2	6.7	5.8
	1902	75	606	580,114	9,233	4,443,018	2,788	1,277,248	2,724	1,301,308	3,721	1,864,462	8.5	7.9	6.9	5.5
Per cent of increase		33.3	65.3	102.3	52.1	79.2	40.1	71.2	46.7	73.1	65.0	88.9	.....	.....	.....	.....
North Central	1907	293	3,475	4,088,813	62,445	41,670,604	17,713	11,902,675	16,712	11,684,210	28,020	18,083,719	29.7	31.7	29.8	30.2
	1902	235	2,202	2,302,200	37,203	23,041,446	11,284	7,034,268	10,813	6,961,146	15,156	9,046,032	30.9	32.2	27.8	28.5
Per cent of increase		24.7	57.8	70.9	67.8	80.9	57.7	69.2	54.6	67.8	84.9	99.9	.....	.....	.....	.....
South Central	1907	90	722	850,740	12,331	7,060,037	3,674	2,044,483	3,773	2,134,650	4,884	2,880,904	6.2	6.6	5.9	5.1
	1902	66	337	418,651	6,394	3,463,780	1,718	881,385	2,177	1,173,051	2,499	1,409,350	4.7	5.6	4.8	4.3
Per cent of increase		36.4	114.2	103.2	92.9	103.8	113.9	132.0	73.3	82.0	95.4	104.4	.....	.....	.....	.....
Western	1907	91	1,647	1,844,015	18,162	14,530,043	4,853	3,888,063	4,827	3,886,434	8,482	6,755,546	14.1	14.3	8.7	10.5
	1902	66	482	590,721	8,384	5,994,685	2,720	1,840,908	2,752	1,858,620	2,912	2,295,148	6.8	7.9	6.3	7.4
Per cent of increase		37.9	241.7	212.2	116.6	142.4	78.4	111.2	75.4	100.1	191.3	194.3	.....	.....	.....	.....

[1] Exclusive of 6 companies which failed to furnish this information.

[2] Exclusive of 20 companies which failed to furnish this information.

The absolute increases, however, were greatest in the North Atlantic division in all particulars except salaries, in which the North Central division was slightly ahead.

The larger rate of gain for the Western and South Central divisions and the smaller proportion contributed by the North Atlantic states to the total in 1907 as compared with 1902 are in harmony with the statistics for traffic, income, and operating expenses.

Companies, grouped according to number of employees.—A grouping of the railway companies by number of employees is shown in Table 159.

TABLE 159.—OPERATING COMPANIES, CLASSIFIED ACCORDING TO NUMBER OF EMPLOYEES, BY GEOGRAPHIC DIVISIONS: 1907.

DIVISION.	Total number of companies.	NUMBER OF COMPANIES REPORTING EMPLOYEES. Under 25.	25 but under 50.	50 but under 75.	75 but under 100.	100 but under 150.	150 but under 200.	200 but under 300.	300 but under 400.	400 but under 500.	500 but under 750.	750 but under 1,000.	1,000 and over.
United States	[1] 939	319	180	111	60	73	35	46	20	22	18	10	45
North Atlantic	365	134	70	53	18	20	9	21	5	7	7	1	20
South Atlantic	100	35	18	11	4	14	3	5	3	3	1	.....	3
North Central	293	89	56	28	24	29	17	11	6	8	6	5	14
South Central	90	26	21	12	6	6	3	5	2	2	3	2	2
Western	91	35	15	7	8	4	3	4	4	2	1	2	6

[1] Exclusive of 6 companies which failed to furnish this information.

Slightly more than one-third of the 939 companies had fewer than 25 employees in 1907. Most of these companies were in the North Atlantic division and the least number in the South Central division. Almost one-fifth of the companies employed from 25 to 50 persons. These companies also were most numerous in the North Atlantic division, while they were least numerous in the Western division. Of the 45 companies reporting 1,000 or more employees, nearly one-half were in the North Atlantic and almost one-third in the North Central division.

Employee and wage statistics of operating companies, classified according to income from railway operations.—The ratios of the number of employees to miles of track, car mileage, and number of fare passengers carried depend upon various conditions. To be of the greatest value for comparisons, these ratios should be for companies situated in different localities and

operated as closely as possible under the same conditions. But the details that would be involved in such an arrangement are so great that it is impracticable for a census report. The grouping of the companies by size as measured by income develops some interesting features.

TABLE 160.—EMPLOYEE AND WAGE STATISTICS OF OPERATING COMPANIES, CLASSIFIED ACCORDING TO INCOME FROM RAILWAY OPERATIONS: 1907 AND 1902.

	Census.	Total, all companies.	CLASSIFICATION GROUP.				
			$1,000,000 and over. (A)	$500,000 but less than $1,000,000. (B)	$250,000 but less than $500,000. (C)	$100,000 but less than $250,000. (D)	Less than $100,000. (E)
Number of companies	1907	[1] 939	76	50	80	182	551
	1902	[2] 797	44	28	53	111	561
Miles of track	1907	34,088.56	15,402.09	4,385.45	3,956.36	4,909.62	5,435.04
	1902	22,159.96	8,414.31	2,127.29	2,681.18	3,318.98	5,618.20
Car mileage	1907	1,610,200,340	1,131,741,588	147,495,234	112,378,238	120,548,770	98,126,510
	1902	1,120,614,074	731,882,858	97,196,371	90,203,540	96,852,050	113,479,255
Number of fare passengers	1907	7,422,266,331	5,622,329,267	584,885,974	438,070,013	451,566,780	325,414,297
	1902	4,723,902,759	3,357,796,250	388,317,716	323,182,416	320,718,499	333,887,878
Salaried employees: Number	1907	11,700	6,641	1,102	1,053	1,368	1,536
	1902	7,128	3,731	439	631	808	1,519
Per 10 miles of track	1907	3.43	4.31	2.51	2.66	2.79	2.83
	1902	3.22	4.43	2.06	2.35	2.43	2.70
Per 1,000,000 car miles	1907	7.27	5.87	7.47	9.37	11.35	15.65
	1902	6.31	5.10	4.52	7.00	8.34	13.39
Per 1,000,000 fare passengers	1907	1.58	1.18	1.88	2.40	3.03	4.72
	1902	1.51	1.11	1.13	1.95	2.52	4.55
Salaries	1907	$12,909,466	$7,802,168	$1,280,099	$1,181,245	$1,381,688	$1,264,266
	1902	$7,439,716	$4,152,141	$560,592	$717,517	$843,866	$1,156,600
Per cent ratio of salaries to operating expenses	1907	5.1	4.5	5.7	6.2	6.8	7.8
	1902	5.2	4.5	4.8	6.2	6.8	7.9
Per cent ratio of salaries to operating earnings	1907	3.1	2.6	3.5	3.9	4.4	5.6
	1902	3.0	2.5	2.8	3.7	4.4	5.6
Wage-earners: Average number	1907	209,729	150,321	17,286	14,224	15,636	12,262
	1902	133,641	86,814	12,053	11,173	10,961	12,640
Per 10 miles of track	1907	61.52	97.60	39.42	35.95	31.85	22.56
	1902	60.31	103.17	56.66	41.67	33.03	22.50
Per 1,000,000 car miles	1907	130.24	132.82	117.20	126.57	129.71	124.96
	1902	118.31	118.62	124.01	123.86	113.17	111.39
Per 1,000,000 fare passengers	1907	28.26	26.74	29.55	32.47	34.63	37.68
	1902	28.29	25.85	31.04	34.57	34.18	37.86
Wages	1907	$138,081,633	$101,436,272	$11,511,975	$8,955,984	$9,364,660	$6,812,742
	1902	$80,770,449	$54,764,832	$6,808,243	$6,456,208	$6,323,210	$6,417,956
Per cent ratio of wages to operating expenses	1907	54.9	58.5	51.7	47.0	46.0	41.9
	1902	56.8	59.6	57.5	56.1	51.2	44.0
Per cent ratio of wages to operating earnings	1907	33.0	34.1	31.5	29.6	29.5	30.2
	1902	32.7	32.6	33.2	33.6	32.9	31.2
Conductors— Average number	1907	60,032	44,369	4,806	3,620	4,054	3,193
	1902	40,141	26,511	3,655	3,300	3,255	3,420
Wages	1907	$38,234,158	$28,543,925	$3,203,961	$2,297,928	$2,401,836	$1,786,508
	1902	$24,025,204	$16,504,470	$2,050,338	$1,851,152	$1,854,875	$1,704,369
Motormen— Average number	1907	55,436	39,548	4,694	3,621	4,126	3,497
	1902	40,003	25,667	3,570	3,302	3,456	3,999
Wages	1907	$37,470,896	$27,488,896	$3,200,744	$2,326,445	$2,493,735	$1,961,076
	1902	$24,617,155	$16,692,757	$2,046,777	$1,870,880	$1,986,627	$2,020,114
All other employees— Average number	1907	94,211	66,414	7,786	6,983	7,456	5,572
	1902	53,497	34,636	4,819	4,571	4,250	5,221
Per 10 miles of track	1907	27.64	43.12	17.75	17.65	15.19	10.25
	1902	24.14	41.16	22.65	17.05	12.81	9.29
Per 1,000,000 car miles	1907	58.51	58.68	52.79	62.14	61.85	56.78
	1902	47.36	47.32	49.58	50.67	43.88	46.01
Per 1,000,000 fare passengers	1907	12.69	11.81	13.31	15.94	16.51	17.12
	1902	11.32	10.32	12.41	14.14	13.25	15.64
Wages	1907	$62,376,579	$45,403,451	$5,107,270	$4,331,611	$4,469,089	$3,065,158
	1902	$32,128,090	$21,507,605	$2,711,128	$2,734,176	$2,481,708	$2,693,473

[1] Exclusive of 6 companies which failed to furnish information in regard to employees and wages.
[2] Exclusive of 20 companies which failed to furnish information in regard to employees and wages.

In the case of the total number of operating companies shown, there was an increase in the number of salaried employees and wage-earners in 1907 as compared with 1902 for each unit of measurement, except wage-earners per fare passenger carried, and for this the decrease was very slight, being merely from 28.29 per million passengers in 1902 to 28.26 per million in 1907. While the number of salaried employees per 10 miles of track was largest (4.31) in 1907 for companies with an income of $1,000,000 and over, the number (2.83) for the small companies of Class E was somewhat higher than that for the larger companies of Classes D, C, and B. A certain number of salaried officials and clerks is necessary to maintain a corporate organization, but the number of such employees does not increase at the same rate as the trackage. The averages for this class of employees were higher in 1907 than in 1902 for each income class, except the large companies composing Class A. Consolidations, which were especially active among the largest companies, generally operate to reduce the administrative and salaried force. Moreover, the increasing density of traffic in the large centers in which the big companies operate tends to lower the number of salaried officials per car mile and per passenger unit for those companies.

Wage-earners are much more intimately associated with track and traffic than salaried officials are, and the number of wage-earners upon a track basis is necessarily greater for the larger companies. The reverse is true, however, when the number of wage-earners is compared with the number of fare passengers carried.

Employee and wage statistics of operating companies with and without commercial lighting, and of part-time companies.—The association of electric light and power business with that of electric railways naturally affects the ratio of employees and wages to track and other units of measurement.

TABLE 161.—EMPLOYEE AND WAGE STATISTICS OF OPERATING COMPANIES WITH AND WITHOUT COMMERCIAL LIGHTING, AND OF PART-TIME COMPANIES: 1907 AND 1902.

	TOTAL, ALL COMPANIES.		CLASSIFICATION GROUP.					
			Without commercial lighting.[1]		With commercial lighting.		Part-time.	
	1907	1902	1907	1902	1907	1902	1907	1902
Number of companies	[2] 939	[3] 797	709	628	[4] 175	112	55	57
Miles of track	34,088.56	22,159.96	26,404.75	18,868.43	6,883.65	2,460.36	800.16	831.17
Car mileage	1,610,290,340	1,129,614,074	1,381,402,281	1,031,551,090	223,608,250	85,042,936	5,279,809	13,020,048
Number of fare passengers	7,422,266,331	4,723,902,759	6,497,189,567	4,380,330,656	912,807,187	305,833,612	12,269,577	37,738,491
Salaried employees:								
Number	11,700	7,128	8,941	5,954	2,619	990	140	184
Per 10 miles of track	3.43	3.22	3.39	3.16	3.80	4.02	1.75	2.21
Per 1,000,000 car miles	7.27	6.31	6.47	5.77	11.71	11.64	26.52	14.13
Per 1,000,000 fare passengers	1.58	1.51	1.38	1.36	2.87	3.24	11.41	4.88
Salaries	$12,909,466	$7,439,716	$10,053,426	$6,320,132	$2,789,382	$998,460	$66,658	$121,124
Per cent ratio of salaries to operating expenses	5.1	5.2	4.8	4.9	6.7	7.8	7.4	8.4
Per cent ratio of salaries to operating earnings	3.1	3.0	2.9	2.8	4.0	4.5	5.3	4.9
Wage-earners:								
Average number	209,729	133,041	175,385	119,261	33,187	12,498	1,157	1,882
Per 10 miles of track	61.52	60.31	66.42	63.21	48.21	50.80	14.46	22.64
Per 1,000,000 car miles	130.24	118.31	126.96	115.61	148.42	146.96	219.14	144.55
Per 1,000,000 fare passengers	28.26	28.20	26.99	27.23	36.36	40.87	94.30	49.87
Wages	$138,081,633	$80,770,449	$117,178,850	$73,330,581	$20,526,304	$6,741,201	$376,479	$698,667
Per cent ratio of wages to operating expenses	54.9	56.8	56.1	57.3	49.4	52.5	42.1	48.5
Per cent ratio of wages to operating earnings	33.0	32.7	33.7	32.9	29.8	30.5	30.2	28.2
Conductors—								
Average number	60,032	40,141	51,602	36,503	8,145	3,090	285	548
Wages	$38,234,158	$24,025,204	$33,203,733	$22,281,221	$4,944,420	$1,545,874	$86,005	$198,109
Motormen—								
Average number	55,486	40,003	46,903	36,178	8,290	3,235	293	590
Wages	$37,470,896	$24,617,155	$32,205,879	$22,723,255	$5,088,336	$1,680,086	$86,681	$213,814
All other employees—								
Average number	94,211	53,497	76,880	46,580	16,752	6,173	579	744
Per 10 miles of track	27.64	24.14	29.12	24.69	24.34	25.09	7.24	8.95
Per 1,000,000 car miles	58.51	47.36	55.65	45.16	74.92	72.59	109.66	57.14
Per 1,000,000 fare passengers	12.69	11.32	11.83	10.63	18.35	20.18	47.19	19.71
Wages	$62,376,579	$32,128,090	$51,679,238	$28,326,105	$10,493,548	$3,515,241	$203,793	$286,744

[1] Includes all full-time operating companies not engaged in regular light and power business, without regard to kind of power used.
[2] Exclusive of 6 companies which failed to furnish information in regard to employees and wages.
[3] Exclusive of 20 companies which failed to furnish information in regard to employees and wages.
[4] Exclusive of 2 part-time companies.

It might be expected that companies with commercial lighting would show a larger number of wage-earners per mile of track than those without commercial lighting, but such is not the case, for the reasons that comparatively few additional employees are required for the operation of power plant and the maintenance of line used jointly for railway service and commercial light and power purposes, and that companies not selling light and power usually operate in great cities where relatively more employees are required to care for the heavy traffic. Companies selling light and power, however, show a relatively larger number of employees per car mile and per fare passenger. It is also of interest to note that in the

companies "with commercial lighting"—that is, in the smaller companies—the increase in the number of conductors reported is exactly equal to the increase in the number of motormen, 5,055. In the group of "Without commercial lighting," therefore, occurs the whole excess in the increase in the number of conductors referred to on page 199.

The averages for the part-time railways are variable and unreliable because of the peculiar conditions under which they were operated.

Employee and wage statistics of operating companies, classified according to kind of system and character of service.—Operating conditions of elevated and subway railways as compared with surface lines, and of interurban lines as compared with urban systems, are very different, as shown by the ratios in the following table:

TABLE 162.—EMPLOYEE AND WAGE STATISTICS OF OPERATING COMPANIES, CLASSIFIED ACCORDING TO KIND OF SYSTEM AND CHARACTER OF SERVICE: 1907.

	Total, all companies.	Classification group.				
		Kind of system.		Character of service.		
		Electric elevated and subway railways.[1]	Electric surface railways.[2]	Selected interurban lines.	Selected small urban roads.	All other railways.
Number of companies	[3] 939	6	933	50	100	789
Miles of track	34,088.56	420.40	33,668.16	5,567.11	560.69	27,960.76
Car mileage	1,610,290,340	143,634,475	1,466,655,865	106,888,537	8,510,860	1,494,890,943
Number of fare passengers	7,422,266,331	635,653,072	6,786,613,259	303,238,580	24,456,606	7,094,571,145
Salaried employees:						
Number	11,700	362	11,338	1,074	156	10,470
Per 10 miles of track	3.43	8.61	3.37	1.93	2.78	3.74
Per 1,000,000 car miles	7.27	2.52	7.73	10.05	18.33	7.00
Per 1,000,000 fare passengers	1.58	0.57	1.67	3.54	6.38	1.48
Salaries	$12,909,466	$569,317	$12,340,149	$1,086,546	$83,534	$11,739,386
Per cent ratio of salaries to operating expenses	5.1	3.8	5.2	6.4	7.4	5.0
Per cent ratio of salaries to operating earnings	3.1	1.7	3.2	3.7	5.9	3.0
Wage-earners:						
Average number	209,729	12,501	197,228	14,122	954	194,653
Per 10 miles of track	61.52	297.36	58.58	25.37	17.01	69.62
Per 1,000,000 car miles	130.24	87.03	134.47	132.12	112.09	130.21
Per 1,000,000 fare passengers	28.26	19.67	29.06	46.57	39.01	27.44
Wages	$138,081,633	$8,588,493	$129,493,140	$8,461,135	$481,531	$129,138,967
Per cent ratio of wages to operating expenses	54.9	56.8	54.8	50.1	42.4	55.4
Per cent ratio of wages to operating earnings	33.0	25.4	33.7	29.0	34.2	33.3
Conductors—						
Average number	60,032	3,597	56,435	2,941	246	56,845
Wages	$38,234,158	$2,142,575	$36,091,583	$1,818,710	$131,086	$36,284,362
Motormen—						
Average number	55,486	985	54,501	2,948	325	52,213
Wages	$37,470,896	$1,030,171	$36,440,725	$1,864,945	$179,008	$35,426,943
All other employees—						
Average number	94,211	7,919	86,292	8,233	383	85,595
Per 10 miles of track	27.64	188.37	25.63	14.79	6.83	30.61
Per 1,000,000 car miles	58.51	55.13	58.84	77.02	45.00	57.26
Per 1,000,000 fare passengers	12.69	12.46	12.72	27.15	15.66	12.06
Wages	$62,376,579	$5,415,747	$56,960,832	$4,777,480	$171,437	$57,427,662

[1] Exclusive of the mixed elevated, subway, and surface systems in Boston, Mass., and Philadelphia, Pa.
[2] Includes the statistics for the few railways not operated by electricity.
[3] Exclusive of 6 companies which failed to furnish information in regard to employees and wages.

The number of wage-earners per 10 miles of track for elevated and subway railways is over five times as great as the corresponding number for ordinary surface railways, and over ten times as great as that for the selected interurban lines. The number of wage-earners per million fare passengers, on the other hand, was highest for the interurban lines. The number of wage-earners other than conductors and motormen was largest, as compared with the trackage, for the elevated and subway group, and largest, as compared with the car mileage and fare passengers, for the selected interurban lines.

Relation of salaries and wages to operating expenses and operating earnings.—There is an apparent inconsistency in the statistics of employees and wages when the salaries and wages of the occupation groups are compared with the purely wage accounts of the operating expenses (Table 125). The main reason for the disagreement in the two accounts lies in the fact that the itemized statement of operating expenses is a standardized account prescribed by the American Street and Interurban Railway Accountants' Association, while there is no uniform classification in use relating particularly to employees and wages. The census classification aims to group the employees roughly according to the general occupations of the industry, and when an employee assigned to a particular group in the wage statistics was engaged in more than one kind of work during the year his wages were distributed over several accounts under operating expenses. Conductors and motormen are less liable to be affected by the shifting of work than the other classes of employees, but even for these classes there is a difference in the two accounts, as for example, in Massachusetts, where the wages of conductors and motormen as reported in the wage section exceed the amounts shown in the operating expenses by $238,075 and $139,926, respectively. Probably the principal cause for this difference is the fact that the wages of conductors and motormen as they appear in operating

expenses represent only wages of those engaged in operating revenue cars.

The causes affecting the general operating ratio, as stated elsewhere (see p. 175), are applicable as well to a consideration of the per cent ratio of salaries and wages to operating expenses, which for all classes of operating companies shows a decline from 62.1 per cent in 1902 to 60.1 per cent in 1907.

TABLE 163.—*Per cent ratio of salaries and wages to operating expenses, by groups of companies: 1907 and 1902.*

CLASSIFICATION GROUP.	PER CENT RATIO.					
	Total.		Salaries.		Wages.	
	1907	1902	1907	1902	1907	1902
Total, all companies	60.1	62.1	5.1	5.2	54.9	56.8
A. $1,000,000 and over	63.0	64.2	4.5	4.5	58.5	59.6
B. $500,000 but less than $1,000,000	57.4	62.3	5.7	4.8	51.7	57.5
C. $250,000 but less than $500,000	53.2	62.3	6.2	6.2	47.0	56.1
D. $100,000 but less than $250,000	52.8	58.0	6.8	6.8	46.0	51.2
E. Less than $100,000	49.7	51.9	7.8	7.9	41.9	44.0
Without commercial lighting[1]	60.9	62.3	4.8	4.9	56.1	57.3
With commercial lighting	56.1	60.3	6.7	7.8	49.4	52.5
Part-time	49.5	57.0	7.4	8.4	42.1	48.5
Electric elevated and subway railways[2]	60.5	(3)	3.8	(3)	56.8	(3)
Electric surface railways[4]	60.1	(3)	5.2	(3)	54.8	(3)
Selected interurban lines	56.5	(3)	6.4	(3)	50.1	(3)
Selected small urban roads	49.8	(3)	7.4	(3)	42.4	(3)
All other railways	60.4	(3)	5.0	(3)	55.4	(3)

[1] Includes all full-time operating companies not engaged in regular light and power business, without regard to kind of power used.
[2] Exclusive of the mixed elevated, subway, and surface systems in Boston, Mass., and Philadelphia, Pa.
[3] This classification not made for the census of 1902.
[4] Includes the statistics for the few railways not operated by electricity.

For the groups of companies, classified according to size as measured by income, the ratios for the amounts expended in salaries and wages combined uniformly increase from low proportions for the smallest companies to high ones for the largest companies. This is just the reverse of the movement of operating ratios, which ranged highest for the small companies and lowest for the large companies. If, however, the ratios are considered for salaries and wages separately, a marked difference is found. Since consolidation into larger companies tends to reduce the number of salaried employees, the ratios of salaries to operating expenses decrease steadily as the companies grow larger. The reverse is true of the ratios of wages, because the large companies, operating lines in the more densely populated districts, require a comparatively larger force of workmen and a correspondingly greater outlay in wages. Both of these general tendencies are well illustrated by the ratios given for the six large electric elevated and subway railways. The ratio of salaries to expenses for these railways (3.8) is the lowest for any class of companies and the ratio of wages (56.8), next to the highest. The ratio of wages to total operating expenses is lower for electric light and power service than for railway service, as shown by the ratios of wages for companies "with commercial lighting" and for companies "without commercial lighting." Consequently the expenses incident to electric-light service, as well as the lower rates of wages per man, are the important factors tending to reduce the ratio of wages to total operating expenses for the smaller companies.

Although the range from lowest to highest is practically the same in the case of the ratios for 1902 and those for 1907, it is clear from the comparison that, particularly in Classes B, C, and D, the salaries and wages combined increased between the two censuses at a much slower rate than did other expenses, since they formed a smaller proportion of the total expense in the later year.

The following statement shows the per cent ratio of total salaries and wages to operating expenses, by states, for the two census years, arranged in the order of the ratios. There is a wide range in the percentages for the two censuses, but excluding South Dakota and Nevada, which were not represented in 1902, and which were the highest and lowest states in rank in 1907, there is a very considerable contraction of the range for 1907. There are so many varying conditions and disturbing elements affecting the ratios that a comparison of the percentages, by states, should be made with caution.

Per cent ratio of salaries and wages to operating expenses, by states: 1907 and 1902.

1907		1902	
State.	Per cent ratio.	State.	Per cent ratio.
South Dakota	77.9	Idaho	80.2
Rhode Island	68.9	California	74.2
Colorado	68.6	Wisconsin	72.5
Nebraska	66.7	Georgia	69.6
Maryland	66.3	Oregon	67.0
Washington	65.5	Maryland	66.8
Oregon	65.2	Louisiana	66.4
Connecticut	65.2	Indiana	66.3
California	64.0	Ohio	65.9
New York	63.7	Kansas	65.6
Michigan	63.4	District of Columbia	65.0
District of Columbia	62.4	Pennsylvania	64.7
Louisiana	62.2	Washington	64.0
Wisconsin	61.2	Minnesota	63.4
Massachusetts	60.9	Colorado	63.2
Utah	60.8	Alabama	62.2
Pennsylvania	60.5	Missouri	62.1
Missouri	60.3	New York	62.1
United States	60.1	United States	62.1
Kansas	59.9	Michigan	62.0
Maine	58.7	West Virginia	61.0
Minnesota	58.7	Iowa	60.8
Montana	58.4	Connecticut	60.7
Illinois	58.1	New Jersey	60.6
North Dakota	58.1	Arkansas	60.5
Arkansas	57.3	Rhode Island	60.4
Indiana	56.4	Massachusetts	60.3
Ohio	56.0	Texas	60.0
Tennessee	55.5	Florida	59.7
Iowa	55.3	Utah	59.6
West Virginia	54.5	Nebraska	57.6
New Jersey	54.0	New Mexico	57.3
Idaho	53.8	Illinois	56.3
Florida	53.6	Tennessee	55.5
Georgia	53.5	Vermont	55.5
Delaware	52.4	Montana	53.0
Oklahoma	52.2	Maine	51.7
Kentucky	51.6	Arizona	50.8
Texas	50.0	Virginia	49.7
New Mexico	50.0	Delaware	49.3
Vermont	49.9	North Carolina	49.0
Mississippi	49.8	Kentucky	48.2
Virginia	49.5	New Hampshire	46.9
Arizona	49.1	Mississippi	46.8
North Carolina	47.4	South Carolina	44.9
Alabama	45.8		
South Carolina	45.0		
New Hampshire	43.6		
Nevada	36.5		

The ratio of combined salaries and wages to operating earnings is very nearly the same in each of the classes of companies, classified according to size as measured by income, while the same general tendency of the ratios of salaries to decrease and of wages to increase as the companies increase in size is observable in this comparison as well as in that based upon operating expenses.

TABLE 164.—*Per cent ratio of salaries and wages to operating earnings, by groups of companies: 1907 and 1902.*

CLASSIFICATION GROUP.	PER CENT RATIO.					
	Total.		Salaries.		Wages.	
	1907	1902	1907	1902	1907	1902
Total, all companies	36.1	35.7	3.1	3.0	33.0	32.7
A. $1,000,000 and over	36.8	35.1	2.6	2.5	34.1	32.6
B. $500,000 but less than $1,000,000	35.0	35.0	3.5	2.8	31.5	33.2
C. $250,000 but less than $500,000	33.6	37.3	3.9	3.7	29.6	33.6
D. $100,000 but less than $250,000	33.8	37.3	4.4	4.4	29.5	32.9
E. Less than $100,000	35.8	36.8	5.6	5.6	30.2	31.2
Without commercial lighting [1]	36.6	35.8	2.9	2.8	33.7	32.9
With commercial lighting	33.8	35.0	4.0	4.5	29.8	30.5
Part-time	35.6	33.1	5.3	4.9	30.2	28.2
Electric elevated and subway railways [2]	27.0	(3)	1.7	(3)	25.4	(3)
Electric surface railways [4]	36.9	(3)	3.2	(3)	33.7	(3)
Selected interurban lines	32.7	(3)	3.7	(3)	29.0	(3)
Selected small urban roads	40.2	(3)	5.9	(3)	34.2	(3)
All other railways	36.3	(3)	3.0	(3)	33.3	(3)

[1] Includes all full-time operating companies not engaged in regular light and power business, without regard to kind of power used.
[2] Exclusive of the mixed elevated, subway, and surface systems in Boston, Mass., and Philadelphia, Pa.
[3] This classification not made for the census of 1902.
[4] Includes the statistics for the few railways not operated by electricity.

Employees, salaries, and wages, by states.—Table 165 compares, by states and geographic divisions, the number and compensation for each class of employees reported at the censuses of 1907 and 1902.

The number of conductors in the United States in 1907 exceeded the number of motormen by 4,546, whereas the excess in 1902 was only 138. This excess of conductors over motormen in 1907 was reported chiefly from New York, Illinois, Pennsylvania, and Massachusetts. It will also be seen that in 1907 the total amount paid for wages of conductors exceeded that for motormen, while at the census of 1902 the aggregate wages of motormen were slightly the larger. In general, the rate of pay for motormen is somewhat higher than that for conductors, but this difference was not sufficient to offset the large increase in the number of conductors as reported for 1907. In the earlier days of horse cars only one employee, the driver, was necessary to operate the car, but with the introduction of mechanical traction two were required—a motorman and a conductor; and later, with the development of elevated and subway railways, interurban lines, and large city systems, where cars are coupled into trains, the number of employees required to operate the units of rolling stock has largely increased. It is a common practice when trailers are used to assign a conductor to each car in the train, especially during the period of congested traffic. It is probable, also, that other classes of trainmen on the elevated and subway lines were classed as conductors.

TABLE 165.—EMPLOYEES, SALARIES, AND WAGES OF OPERATING COMPANIES,

	STATE OR TERRITORY.	Census.	Number of companies.	SALARIED EMPLOYEES. Total. Number.	Total. Salaries.	Salaried officers of corporations. Number.	Salaries.	Other officers, managers, superintendents, etc. Number.	Salaries.	Clerks and bookkeepers. Number.	Salaries.
1	United States	1907	[1] 939	11,700	$12,909,466	1,518	$3,852,252	2,094	$3,580,367	8,088	$5,476,847
2		1902	[2] 797	7,128	7,439,716	1,480	2,990,745	1,327	1,819,166	4,321	2,629,805
3	North Atlantic division	1907	365	4,854	4,933,839	627	1,399,682	811	1,307,855	3,416	2,226,302
4		1902	355	3,501	3,449,030	631	1,216,856	659	895,024	2,211	1,337,150
5	Maine	1907	17	88	80,675	20	31,422	19	21,237	49	28,016
6		1902	19	65	57,218	20	22,998	11	14,064	34	20,156
7	New Hampshire	1907	16	39	42,426	12	15,660	12	17,024	15	9,742
8		1902	7	25	20,588	8	9,088	5	5,924	12	5,576
9	Vermont	1907	10	34	23,456	18	9,803	8	9,770	8	3,883
10		1902	9	25	13,733	13	6,046	6	5,720	6	1,967
11	Massachusetts	1907	62	1,041	1,060,188	146	329,966	179	274,807	716	455,415
12		1902	74	896	912,549	131	266,635	236	273,777	529	372,137
13	Rhode Island	1907	5	126	119,400	10	28,509	16	29,401	100	61,490
14		1902	7	37	44,456	10	25,777	4	3,324	23	15,355
15	Connecticut	1907	8	222	189,420	21	36,492	25	41,684	176	111,244
16		1902	21	185	221,561	56	127,904	28	33,345	101	60,312
17	New York	1907	101	1,877	1,987,942	170	463,349	231	487,947	1,476	1,036,646
18		1902	96	1,221	1,127,405	188	428,451	136	203,610	897	495,344
19	New Jersey	1907	24	431	367,073	48	127,342	96	124,361	292	115,370
20		1902	25	276	251,795	53	107,036	50	57,763	173	86,996
21	Pennsylvania	1907	122	996	1,068,259	187	357,139	225	301,624	584	404,496
22		1902	97	771	799,725	152	222,921	183	297,497	436	279,307
23	South Atlantic division	1907	100	1,002	1,192,053	168	377,451	199	355,557	635	459,045
24		1902	75	606	580,114	159	260,940	108	140,131	339	188,043
25	Delaware	1907	4	18	24,106	5	8,058	5	9,400	8	6,648
26		1902	3	15	11,581	9	6,400	2	2,460	4	2,721
27	Maryland and District of Columbia	1907	19	388	441,266	37	129,035	41	76,914	310	235,317
28		1902	18	248	251,002	30	89,949	35	52,233	183	108,820
29	Virginia	1907	22	189	226,782	56	102,856	44	69,810	89	54,116
30		1902	16	106	78,383	47	42,152	18	17,706	41	18,525
31	West Virginia	1907	15	73	81,790	13	21,600	26	37,561	34	22,629
32		1902	8	46	46,277	13	26,284	10	6,820	23	13,173
33	North Carolina	1907	11	69	66,516	16	22,659	15	19,517	38	24,340
34		1902	7	42	28,767	15	14,275	5	6,625	22	7,867
35	South Carolina	1907	7	49	65,994	14	35,740	13	17,734	22	12,520
36		1902	7	40	31,212	13	17,260	12	9,386	15	4,566
37	Georgia	1907	12	158	192,629	22	48,690	29	66,710	107	77,229
38		1902	10	72	101,911	20	46,222	18	35,070	34	20,619
39	Florida	1907	10	58	92,970	5	8,813	26	57,911	27	26,246
40		1902	6	37	39,981	12	18,398	8	9,831	17	11,752
41	North Central division	1907	293	3,475	4,088,813	481	1,444,466	694	1,133,185	2,300	1,511,162
42		1902	235	2,202	2,392,200	461	1,040,887	406	550,501	1,335	800,812
43	Ohio	1907	73	862	993,889	153	364,952	210	303,323	499	325,614
44		1902	62	563	541,576	131	269,697	91	118,452	341	153,427
45	Indiana	1907	33	489	475,809	64	168,932	106	125,858	319	181,019
46		1902	26	176	181,167	52	93,060	30	35,000	94	53,107
47	Illinois	1907	70	811	1,036,560	99	359,423	158	276,777	554	400,360
48		1902	48	535	669,518	97	237,995	88	152,173	350	279,350
49	Michigan	1907	24	319	332,679	43	124,433	43	71,435	233	136,811
50		1902	24	256	202,802	53	125,835	49	58,094	154	78,873
51	Wisconsin	1907	20	249	237,311	29	58,592	38	97,363	182	81,356
52		1902	17	173	146,346	30	53,591	28	32,443	115	60,312
53	Minnesota	1907	5	118	215,419	9	99,060	17	42,553	92	73,806
54		1902	5	88	110,755	9	43,234	15	29,995	64	37,526
55	Iowa	1907	24	172	184,783	33	68,011	35	49,898	104	66,874
56		1902	22	87	88,229	29	47,738	13	14,623	45	25,868
57	Missouri	1907	14	331	441,508	23	127,858	53	112,508	255	201,142
58		1902	16	272	340,013	33	136,140	86	103,116	153	100,757
59	North and South Dakota [3]	1907	5	6	5,574	1	420	3	3,400	2	1,754
60	Nebraska	1907	8	50	95,569	9	46,081	12	23,800	29	25,688
61		1902	4	22	26,610	10	17,007	1	1,875	11	7,728
62	Kansas	1907	17	68	69,712	18	26,704	19	26,270	31	16,738
63		1902	11	30	25,184	17	16,590	5	4,730	8	3,864

[1] Exclusive of 6 companies which failed to furnish this information.

[2] Exclusive of 20 companies which failed to furnish this information.

BY STATES AND GEOGRAPHIC DIVISIONS: 1907 AND 1902.

WAGE-EARNERS.														
Total.		Foremen.		Inspectors.		Conductors.		Motormen.		Starters.		Switchmen.		
Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	
209,729	$138,081,633	3,582	$3,344,170	1,850	$1,617,390	60,032	$38,234,158	55,486	$37,470,896	1,442	$1,159,034	1,808	$1,179,440	1
133,641	80,770,449	1,782	1,518,400	1,095	852,629	40,141	24,025,204	40,003	24,617,155	960	721,031	1,198	728,075	2
102,749	66,860,195	1,470	1,361,024	912	775,795	20,886	18,211,917	20,178	17,512,924	945	740,678	1,230	780,143	3
72,427	43,827,514	731	653,412	642	521,176	21,681	12,901,395	21,537	13,323,021	635	483,109	908	565,519	4
1,271	788,791	25	20,875	5	3,947	308	188,496	313	191,256	7	4,776	3	1,437	5
969	526,062	4	3,562	.....	.....	258	141,941	259	142,135	8	3,660	.....	.....	6
576	347,899	20	10,720	9	5,058	184	102,779	180	102,916	5	4,334	1	520	7
357	203,823	4	3,505	2	1,601	123	67,679	123	67,630	5	2,051	.....	.....	8
232	133,059	11	8,700	1	800	69	37,950	65	36,306	.....	.....	1	543	9
165	97,823	7	4,920	1	641	55	33,683	56	34,109	.....	.....	.....	.....	10
17,255	11,841,012	273	270,694	124	112,635	4,974	3,351,498	4,802	3,374,392	420	305,011	98	51,485	11
13,998	8,980,513	195	186,795	114	90,266	4,084	2,660,947	4,001	2,711,885	192	140,436	162	98,153	12
2,860	1,771,086	56	63,929	13	11,237	771	426,964	779	438,960	10	8,178	12	5,460	14
1,609	1,099,423	29	27,005	15	12,770	424	304,091	419	300,305	6	5,017	16	8,830	13
4,402	2,975,780	171	163,491	32	29,823	1,141	751,187	1,141	751,331	34	27,601	23	6,893	15
2,536	1,462,800	48	38,262	15	10,654	780	442,579	778	442,425	15	12,069	13	6,079	16
46,001	30,431,835	447	423,213	517	440,411	12,946	7,625,878	9,748	6,894,044	317	275,281	767	538,713	17
33,192	19,800,755	205	179,159	316	261,588	9,661	5,528,938	9,204	5,796,023	262	208,182	591	393,921	18
6,308	3,904,462	73	69,524	60	49,117	1,985	1,172,488	1,971	1,199,136	79	63,483	51	18,998	19
3,880	2,370,078	71	63,230	85	68,270	1,237	745,342	1,218	753,769	90	69,710	45	18,890	20
23,844	14,666,271	394	323,878	151	121,837	7,508	4,554,682	7,179	4,524,683	73	52,014	274	156,094	21
15,721	9,286,237	168	146,074	94	75,386	5,059	3,066,195	5,479	3,074,740	57	41,984	81	39,646	22
14,042	7,960,754	222	185,244	85	67,164	3,996	2,187,020	3,996	2,252,678	133	105,676	80	36,177	23
9,233	4,443,018	135	92,859	43	29,138	2,788	1,277,248	2,724	1,301,308	76	52,033	55	24,175	24
371	246,225	4	3,300	6	3,638	128	87,069	128	87,144	4	2,690	2	1,110	25
236	166,104	4	2,820	1	913	82	60,080	82	60,080	3	2,801	2	1,278	26
5,633	3,413,982	86	74,465	7	6,498	1,739	1,002,673	1,813	1,052,082	70	60,991	43	21,587	27
4,323	2,306,191	38	26,837	3	2,700	1,452	726,858	1,372	732,196	52	35,564	40	19,422	28
2,542	1,386,246	11	8,734	20	14,391	605	353,112	610	359,742	37	23,313	12	5,439	29
960	423,319	30	17,548	5	3,185	259	114,522	247	114,326	2	1,339	9	2,206	30
1,234	757,092	34	25,571	6	4,140	324	212,580	321	211,345	5	4,440	.....	.....	31
621	352,003	13	9,890	2	1,200	195	110,890	204	118,573	4	2,530	.....	.....	32
610	285,728	18	15,366	7	5,437	163	68,846	165	70,117	1	600	2	1,008	33
376	120,286	10	7,292	2	1,200	94	29,088	95	29,762	3	1,620	2	363	34
616	277,665	26	20,770	5	3,500	148	66,866	151	67,527	2	1,248	3	1,151	35
372	147,979	16	12,395	4	2,920	113	37,931	113	38,277	1	455	1	300	36
2,294	1,173,846	28	22,642	24	23,346	606	297,288	616	302,376	9	8,580	11	2,422	37
1,971	755,355	15	9,871	20	12,923	493	158,480	512	170,243	8	6,298	1	606	38
742	419,070	15	14,396	10	6,214	193	98,586	192	102,345	5	3,814	7	3,460	39
374	162,781	9	6,206	6	4,097	100	39,399	99	37,851	3	1,426	.....	.....	40
62,445	41,670,604	1,256	1,120,415	532	448,221	17,713	11,902,675	16,712	11,684,210	251	206,603	373	273,825	41
37,203	23,041,446	606	476,959	265	186,089	11,234	7,034,268	10,813	6,961,146	189	137,550	175	97,194	42
15,061	9,356,596	249	212,751	109	91,829	4,235	2,660,968	4,253	2,734,420	88	69,744	52	32,002	43
9,451	5,475,397	155	124,191	117	80,507	2,910	1,663,807	3,019	1,761,552	50	35,425	44	19,051	44
5,259	3,081,212	123	84,709	53	40,829	1,151	718,095	1,174	750,336	14	8,437	2	1,173	45
2,448	1,289,718	70	47,150	12	10,271	637	332,116	674	364,174	4	2,660	2	546	46
19,696	13,827,026	341	300,688	151	112,172	6,045	4,247,358	4,876	3,768,417	65	57,653	235	197,431	47
11,057	7,267,270	120	105,138	37	28,520	3,538	2,444,620	2,738	2,094,870	41	33,273	96	62,457	48
5,632	3,819,074	169	166,245	97	85,263	1,485	943,146	1,509	976,712	42	35,411	15	6,883	49
3,192	2,003,174	58	45,791	51	34,229	895	592,063	951	631,592	50	35,577	10	4,415	50
2,650	1,742,823	37	36,902	12	11,352	647	438,799	696	470,949	2	755	.....	.....	51
2,042	1,300,421	61	39,318	6	2,980	406	269,268	477	310,462	4	2,520	1	365	52
2,417	1,854,274	43	48,630	23	23,579	747	579,924	776	610,387	12	11,001	24	13,531	53
1,509	979,044	42	35,218	7	5,400	475	299,127	482	294,234	8	5,220	12	5,760	54
2,147	1,378,258	44	35,868	7	5,040	559	360,825	566	384,061	15	13,041	1	660	55
1,516	799,671	30	25,578	17	10,700	377	177,629	443	230,912	5	3,720	.....	.....	56
7,619	5,392,123	213	201,387	64	62,113	2,255	1,593,546	2,245	1,602,016	9	7,321	43	21,545	57
5,186	3,432,170	56	43,365	13	9,980	1,767	1,109,345	1,740	1,100,274	26	18,375	10	4,600	58
65	37,166	1	900	.....	.....	23	12,123	24	13,097	.....	.....	1	600	59
1,193	787,725	13	13,140	12	11,760	380	246,497	388	256,597	3	2,400	.....	.....	60
527	350,958	9	7,562	2	1,560	172	119,273	187	119,695	1	780	.....	.....	61
706	394,327	23	19,195	4	3,384	186	101,394	205	117,218	1	840	.....	.....	62
275	143,623	5	3,648	3	1,042	57	27,020	102	53,381	.....	.....	.....	.....	63

[3] No company reported in 1902 for North Dakota, and the 1 company in South Dakota in 1902 failed to furnish this information.

TABLE 165.—EMPLOYEES, SALARIES, AND WAGES OF OPERATING COMPANIES,

	STATE OR TERRITORY.	Census.	Number of companies.	SALARIED EMPLOYEES. Total. Number.	Total. Salaries.	Salaried officers of corporations. Number.	Salaried officers of corporations. Salaries.	Other officers, managers, superintendents, etc. Number.	Other officers, managers, superintendents, etc. Salaries.	Clerks and bookkeepers. Number.	Clerks and bookkeepers. Salaries.
64	South Central division	1907	90	722	$850,746	121	$270,902	161	$280,747	440	$299,097
65		1902	66	337	418,651	117	233,856	60	79,838	160	104,957
66	Kentucky	1907	13	77	115,738	20	48,605	18	35,550	39	31,583
67		1902	12	59	73,259	25	44,832	11	11,099	23	17,328
68	Tennessee	1907	9	166	176,628	20	48,594	35	53,303	111	74,731
69		1902	8	49	64,872	16	32,075	11	18,054	22	14,743
70	Alabama	1907	10	97	124,185	23	51,161	16	28,706	58	44,318
71		1902	9	57	65,245	12	24,701	12	21,940	33	18,604
72	Mississippi	1907	8	46	44,045	11	12,685	10	14,193	25	17,167
73		1902	5	21	17,699	11	12,959	1	300	9	4,440
74	Louisiana	1907	11	75	94,979	11	51,778	7	10,614	57	32,587
75		1902	8	62	86,723	20	53,567	6	8,649	36	24,507
76	Arkansas	1907	8	58	57,424	6	7,775	15	28,160	37	21,489
77		1902	7	23	18,250	8	9,099	6	3,642	9	5,509
78	Oklahoma[1]	1907	8	34	31,400	9	10,657	7	9,803	18	10,940
79	Texas	1907	23	169	206,347	21	39,647	53	100,418	95	66,282
80		1902	17	66	92,603	25	56,623	13	16,154	28	19,826
81	Western division	1907	91	1,647	1,844,015	121	359,751	229	503,023	1,297	981,241
82		1902	66	482	590,721	112	238,206	94	153,672	276	198,843
83	Montana	1907	5	20	34,006	1	3,127	6	20,185	13	10,694
84		1902	5	14	20,825	5	11,150	1	1,600	8	8,075
85	Colorado	1907	11	133	183,991	29	72,228	24	49,049	80	62,714
86		1902	7	74	87,737	18	38,813	12	18,456	44	30,468
87	Washington	1907	14	362	410,868	20	63,881	64	152,950	278	200,037
88		1902	8	89	109,143	24	50,775	9	19,580	56	38,788
89	Oregon	1907	8	93	104,881	4	30,000	7	12,373	82	62,508
90		1902	6	35	44,207	10	20,733	8	10,965	17	12,509
91	California	1907	41	904	954,742	57	168,515	104	223,436	743	562,791
92		1902	34	255	309,822	48	103,628	61	99,811	146	106,383
93	All other Western states and territories[2]	1907	12	135	149,527	10	22,000	24	45,030	101	82,497
94		1902	6	15	18,987	7	13,107	3	3,260	5	2,620
95	Hawaii and Porto Rico[3]	1907	4	32	45,789	5	5,258	10	25,474	17	15,057
96		1902	5	22	25,179	9	8,959	2	5,800	11	10,420

[1] No company reported in 1902.
[2] Includes states and territories as follows: 1907—Arizona, 4; Idaho, 2; Nevada, 1; New Mexico, 2; Utah, 3. 1902—Arizona, 1; Idaho, 1; New Mexico, 1; Utah, 3.

BY STATES AND GEOGRAPHIC DIVISIONS: 1907 AND 1902—Continued.

WAGE-EARNERS														
Total.		Foremen.		Inspectors.		Conductors.		Motormen.		Starters.		Switchmen.		
Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	
12,331	$7,000,037	180	$173,121	140	$128,989	3,674	$2,044,483	3,773	$2,134,650	46	$40,674	42	$18,510	64
6,394	3,403,786	116	98,228	92	65,912	1,718	881,385	2,177	1,173,051	34	23,699	17	6,409	65
2,375	1,342,212	35	31,360	35	34,974	786	427,095	827	448,622	12	9,653	5	2,099	66
1,331	678,670	25	18,138	29	20,249	286	99,084	557	288,499	14	10,220	6	3,285	67
2,092	1,174,200	35	34,397	24	24,346	601	335,586	607	340,845	8	9,863	4	1,994	68
1,205	533,878	24	10,986	20	12,333	385	164,145	399	176,851	4	2,400	1	365	69
1,645	917,545	34	32,646	29	22,622	403	236,584	390	234,125	2	1,740	7	4,121	70
921	481,045	18	16,044	20	15,215	208	105,877	217	112,639	.....	.....	.....	.....	71
437	222,007	9	7,275	4	3,120	112	48,216	121	53,469	3	2,400	2	1,260	72
137	72,178	3	1,865	2	1,105	28	15,229	32	17,351	1	480	.....	.....	73
2,684	1,573,646	12	12,443	17	15,809	860	472,867	865	474,978	6	5,580	17	4,286	74
1,646	1,081,875	22	22,138	18	14,310	525	346,139	538	351,266	8	6,180	10	2,759	75
567	333,906	11	10,200	3	2,847	132	70,715	108	93,815	3	2,126	.....	.....	76
225	112,665	2	1,021	.....	.....	55	21,905	85	44,175	3	1,707	.....	.....	77
342	155,208	2	1,440	1	840	110	54,996	110	51,419	2	2,100	2	1,343	78
2,189	1,341,253	42	43,360	27	24,431	670	398,424	685	431,377	10	7,212	5	3,407	79
929	503,475	22	18,436	3	2,700	231	129,006	340	182,270	4	2,712	.....	.....	80
18,162	14,530,043	454	504,360	181	197,251	4,853	3,888,063	4,827	3,886,434	67	65,403	83	70,785	81
8,384	5,094,685	154	190,942	53	50,314	2,720	1,840,908	2,752	1,858,629	26	24,640	43	35,678	82
231	288,177	4	5,675	1	1,139	75	97,092	77	100,283	.....	.....	11	12,809	83
178	172,643	5	6,235	.....	.....	60	57,842	55	51,886	.....	.....	.....	.....	84
1,605	1,255,656	31	42,074	4	4,040	493	364,801	485	361,961	1	825	2	1,152	85
979	734,519	12	12,870	8	7,479	296	224,862	302	231,261	.....	.....	4	2,400	86
3,704	2,950,382	58	60,072	28	20,235	1,019	742,974	1,013	747,296	13	11,576	4	3,109	87
1,250	898,737	44	45,303	14	14,760	349	222,103	353	222,087	.....	.....	.....	.....	88
1,123	963,781	14	17,120	9	9,735	379	337,102	378	335,801	1	1,080	.....	.....	89
490	304,056	12	14,480	1	900	152	126,473	155	126,626	.....	.....	.....	.....	90
10,562	8,372,854	335	367,140	132	146,177	2,638	2,154,764	2,623	2,149,069	50	49,762	66	53,715	91
5,187	3,588,889	118	114,934	28	25,975	1,769	1,141,482	1,776	1,147,317	24	22,720	39	33,278	92
877	699,193	12	12,285	7	6,925	249	190,670	251	192,024	2	2,160	.....	.....	93
300	205,841	3	3,120	2	1,200	94	68,146	111	79,452	2	1,920	.....	.....	94
365	198,142	2	1,425	6	2,917	99	58,412	101	59,112	.....	.....	.....	.....	95
381	177,620	7	5,540	1	1,500	78	35,238	116	58,257	.....	.....	1	250	96

[1] Includes companies as follows: 1907—Hawaii, 1; Porto Rico, 3. 1902—Hawaii, 3; Porto Rico, 2.

TABLE 165.—EMPLOYEES, SALARIES, AND WAGES OF OPERATING COMPANIES,

	STATE OR TERRITORY.	Census.	WAGE-EARNERS—continued.									
			Road and track men.		Linemen.		Electricians.		Car and motor repairers.[1]		Engineers.	
			Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.
1	United States	1907	22,401	$12,368,696	3,666	$2,831,897	1,525	$1,384,061	13,476	$9,200,149	1,948	$1,923,084
2		1902	11,474	5,511,425	2,288	1,553,478	1,150	901,524	.....	.....	1,751	1,527,793
3	North Atlantic division	1907	11,346	6,554,988	1,492	1,149,394	649	567,219	6,672	4,401,547	850	853,089
4		1902	6,179	3,016,711	1,139	781,025	722	573,168	.....	.....	805	697,338
5	Maine	1907	176	95,866	38	23,985	17	12,220	92	59,882	32	25,408
6		1902	158	66,704	25	14,533	46	33,528	.....	.....	32	23,862
7	New Hampshire	1907	89	50,921	9	8,084	2	1,167	30	22,499	9	8,154
8		1902	35	18,099	9	5,049	4	3,169	.....	.....	10	9,035
9	Vermont	1907	33	16,844	4	2,250	4	3,088	14	8,242	6	4,831
10		1902	19	8,874	3	1,688	1	800	.....	.....	4	2,849
11	Massachusetts	1907	1,908	1,116,210	327	247,663	51	45,757	950	677,277	186	190,881
12		1902	889	462,163	239	108,390	80	54,317	.....	.....	196	181,589
13	Rhode Island	1907	473	246,331	45	32,303	5	5,846	250	211,613	11	11,390
14		1902	211	118,439	26	20,078	15	11,077	.....	.....	16	16,271
15	Connecticut	1907	784	352,902	80	66,171	7	5,217	345	234,706	75	80,274
16		1902	325	145,569	98	61,342	18	13,144	.....	.....	57	51,621
17	New York	1907	4,921	2,910,535	595	496,415	481	418,891	3,127	1,944,656	225	239,049
18		1902	2,778	1,411,386	430	320,269	320	201,034	.....	.....	209	192,207
19	New Jersey	1907	486	229,422	105	85,057	10	9,187	772	516,509	57	54,240
20		1902	248	108,360	68	44,015	25	21,477	.....	.....	37	31,294
21	Pennsylvania	1907	2,476	1,535,957	289	187,466	72	65,846	1,092	726,103	249	238,802
22		1902	1,521	677,117	241	145,061	213	144,622	.....	.....	244	188,610
23	South Atlantic division	1907	1,279	559,219	299	203,371	76	65,879	918	589,105	181	164,570
24		1902	998	321,274	252	133,761	60	44,469	.....	.....	174	142,447
25	Delaware	1907	24	8,744	4	3,294	2	1,530	26	18,799	4	3,360
26		1902	17	5,575	5	3,325	1	912	.....	.....	8	7,740
27	Maryland and District of Columbia	1907	369	180,823	56	46,352	25	22,712	595	411,167	32	33,252
28		1902	330	133,624	64	36,287	29	19,053	.....	.....	42	35,956
29	Virginia	1907	225	90,975	94	55,205	21	16,743	13	7,490	40	38,161
30		1902	71	21,355	34	16,641	10	7,537	.....	.....	36	26,791
31	West Virginia	1907	274	132,562	29	20,220	3	3,060	49	30,830	34	28,018
32		1902	62	27,722	14	9,094	4	3,860	.....	.....	28	20,608
33	North Carolina	1907	65	22,307	33	19,806	13	10,800	23	10,793	23	17,353
34		1902	60	14,799	25	8,929	3	1,800	.....	.....	19	14,050
35	South Carolina	1907	78	20,685	19	10,835	4	3,705	27	12,698	11	10,201
36		1902	35	9,386	12	5,836	3	3,250	.....	.....	7	6,660
37	Georgia	1907	194	78,348	58	43,764	7	6,489	134	63,198	20	17,607
38		1902	384	100,512	82	42,475	9	6,906	.....	.....	23	20,785
39	Florida	1907	50	24,775	6	3,835	1	840	51	34,130	17	16,618
40		1902	34	8,301	16	11,174	1	561	.....	.....	11	9,857
41	North Central division	1907	6,534	3,466,239	1,180	902,349	526	434,779	3,584	2,457,577	644	616,595
42		1902	2,910	1,415,500	591	399,663	256	186,544	.....	.....	550	462,301
43	Ohio	1907	1,751	839,048	235	192,743	85	73,799	1,035	675,641	223	215,413
44		1902	928	407,765	193	132,683	79	55,225	.....	.....	168	146,168
45	Indiana	1907	563	268,296	151	96,682	94	61,766	356	237,844	84	70,260
46		1902	326	134,931	69	41,070	9	7,060	.....	.....	54	36,362
47	Illinois	1907	2,299	1,202,815	368	287,624	181	153,164	1,079	788,504	117	119,343
48		1902	603	346,333	97	71,274	67	47,711	.....	.....	104	92,442
49	Michigan	1907	532	361,038	118	93,650	39	35,731	425	280,067	66	67,768
50		1902	344	167,454	58	37,981	23	18,624	.....	.....	59	52,190
51	Wisconsin	1907	224	135,090	72	57,038	18	14,025	82	59,200	34	29,971
52		1902	77	39,465	48	29,515	14	9,767	.....	.....	31	25,293
53	Minnesota	1907	96	69,172	27	23,249	34	29,362	91	69,022	10	13,260
54		1902	63	40,340	17	11,614	17	10,812	.....	.....	15	13,146
55	Iowa	1907	265	121,935	59	40,948	24	19,486	79	52,765	51	42,361
56		1902	201	91,124	59	38,300	21	15,330	.....	.....	44	32,957
57	Missouri	1907	614	372,709	122	92,766	33	32,547	366	239,784	35	39,796
58		1902	301	169,606	42	32,242	19	14,715	.....	.....	59	51,119
59	North and South Dakota[2]	1907	6	4,510	1	120	.....	.....	1	720	2	1,440
60	Nebraska	1907	81	39,583	16	11,563	5	5,040	44	37,132	4	4,080
61		1902	21	9,048	4	2,844	3	2,920	.....	.....	4	3,225
62	Kansas	1907	103	52,043	11	5,906	13	9,859	26	16,898	18	12,903
63		1902	46	19,434	4	2,340	4	3,780	.....	.....	12	9,400

[1] Not reported separately in 1902.

BY STATES AND GEOGRAPHIC DIVISIONS: 1907 AND 1902—Continued.

WAGE-EARNERS—continued.												
Dynamo and switchboard men.		Firemen.		Other mechanics.		Hostlers, stablemen, etc.		Watchmen.		All other employees.		
Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	
1,963	$1,433,304	3,282	$2,309,819	11,264	$8,034,588	1,132	$732,795	1,454	$789,181	23,418	$14,068,971	1
1,167	761,304	2,094	1,735,647	9,197	6,312,119	1,345	813,425	921	497,103	16,475	8,693,237	2
783	612,000	1,468	1,090,003	6,505	4,617,217	731	481,010	840	435,529	10,792	6,715,748	3
477	309,755	1,356	912,123	5,154	3,499,392	886	560,444	562	308,943	9,013	4,630,083	4
16	10,291	38	25,623	16	9,362	6	3,726	22	14,631	157	97,010	5
3	1,200	29	15,900	39	19,993	36	19,069	13	7,536	59	32,439	6
.....	.....	4	2,870	12	9,286	1	730	6	3,687	15	7,265	7
.....	.....	6	3,735	19	12,447	3	1,695	10	5,822	4	1,706	8
9	6,817	4	1,033	1	450	1	572	3	1,586	6	3,047	9
.....	.....	2	1,140	3	1,806	3	1,652	4	2,107	7	3,554	10
52	38,125	318	231,986	1,380	891,340	141	89,883	114	74,482	1,137	771,603	11
65	40,493	242	153,939	1,532	1,020,518	105	69,724	130	72,231	1,772	869,067	12
20	17,884	23	15,541	205	148,747	5	2,378	16	11,167	166	113,158	13
2	1,824	27	18,410	87	55,285	3	1,615	20	12,462	293	185,944	14
35	21,375	40	42,531	27	22,152	8	5,726	11	7,745	439	406,655	15
15	10,400	54	38,038	163	105,406	10	5,810	26	15,146	121	64,256	16
414	361,732	503	395,978	3,720	2,803,527	518	349,756	409	193,069	6,346	4,12[illegible] 687	17
302	182,213	578	420,410	1,660	1,263,288	546	356,287	173	98,872	5,957	2,890,978	18
26	22,438	111	92,500	41	24,443	15	9,061	45	28,211	421	260,053	19
41	27,924	67	36,367	423	245,448	38	27,034	40	21,240	152	87,708	20
211	133,338	418	281,032	1,103	707,910	36	19,178	214	100,951	2,105	935,580	21
49	36,701	351	218,184	1,228	775,201	142	77,558	146	73,527	648	504,731	22
142	91,332	240	141,436	365	220,222	45	22,967	97	47,532	1,978	1,021,162	23
79	43,917	185	99,974	492	314,756	37	15,632	73	32,857	1,067	517,170	24
22	16,549	4	2,760	.....	.....	1	625	4	2,013	8	3,600	25
.....	.....	10	6,861	10	8,005	.....	.....	1	639	10	5,075	26
19	15,311	56	42,560	55	41,770	14	8,032	32	17,717	622	375,390	27
22	15,799	56	37,821	304	243,926	22	10,349	40	18,198	397	211,001	28
23	13,807	46	25,786	237	138,065	13	4,994	30	13,682	505	216,547	29
13	6,529	29	12,062	31	15,530	3	1,213	8	3,060	173	58,566	30
10	6,100	23	15,428	10	5,500	9	5,400	3	1,020	100	49,978	31
6	2,880	23	13,414	19	11,358	4	1,800	4	1,090	39	16,194	32
8	4,374	30	15,480	11	5,374	2	810	10	4,078	36	13,179	33
2	840	19	6,268	8	2,791	2	280	5	2,053	27	8,151	34
13	7,135	14	7,141	18	8,026	1	300	7	2,665	89	33,212	35
7	4,112	8	4,214	10	5,690	2	468	5	2,100	36	13,985	36
36	20,707	38	16,950	23	16,959	3	1,722	6	3,012	481	248,436	37
24	10,659	30	13,156	33	19,535	3	1,054	4	1,396	330	180,456	38
11	7,340	29	15,331	11	4,528	2	484	5	2,445	137	80,820	39
5	3,098	10	5,278	17	7,912	1	468	6	3,421	56	23,742	40
715	464,454	1,188	811,785	2,998	2,168,493	257	165,644	344	191,158	7,038	4,355,582	41
472	302,687	808	494,075	2,548	1,723,471	271	146,370	185	94,563	5,330	2,923,066	42
179	112,218	365	241,728	372	239,190	27	16,644	89	52,577	1,714	895,881	43
110	73,611	231	141,326	664	441,032	43	21,207	42	22,547	698	349,400	44
69	46,054	132	85,692	139	94,502	5	2,835	38	20,174	1,111	493,528	45
27	18,987	52	27,631	219	122,286	47	26,346	16	5,970	230	112,558	46
292	184,298	269	197,893	903	647,142	130	89,830	76	40,209	2,269	1,432,485	47
183	109,655	191	124,463	732	498,597	107	59,912	41	21,919	2,362	1,126,086	48
55	40,658	112	80,934	311	249,035	5	2,870	53	29,007	599	364,656	49
69	43,270	67	41,636	273	165,002	9	4,404	30	14,745	245	114,201	50
29	15,987	50	28,810	298	212,220	12	6,495	10	5,855	427	219,375	51
38	24,928	37	21,713	108	84,656	7	3,263	12	6,023	715	430,885	52
9	8,824	24	18,420	83	85,094	5	2,074	18	9,649	395	239,096	53
14	10,884	24	10,258	98	67,595	8	4,560	3	1,643	224	163,334	54
19	10,148	89	54,156	98	69,741	50	29,486	14	6,441	207	130,306	55
5	2,820	67	36,182	121	78,901	15	7,874	8	3,699	103	43,945	56
54	41,312	110	79,934	674	479,629	14	10,618	39	23,772	729	491,333	57
24	16,912	112	73,824	271	224,502	32	18,629	23	12,901	691	541,781	58
.....	.....	1	450	2	1,500	.....	.....	.....	.....	3	1,706	59
6	4,640	19	14,730	110	84,840	4	2,160	4	2,040	104	51,523	60
1	900	17	11,190	52	34,220	1	600	5	2,664	48	34,477	61
3	315	17	9,038	8	5,600	5	2,637	3	1,434	80	35,603	62
1	720	10	5,852	10	6,680	2	575	5	2,452	14	6,399	63

[2] No company reported in 1902 for North Dakota and the 1 company in South Dakota in 1902 failed to furnish this information.

TABLE 165.—EMPLOYEES, SALARIES, AND WAGES OF OPERATING COMPANIES,

	STATE OR TERRITORY.	Census.	WAGE-EARNERS—continued.									
			Road and track men.		Linemen.		Electricians.		Car and motor repairers.[1]		Engineers.	
			Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.
64	South Central division	1907	1,230	$514,120	251	$185,442	79	$72,118	708	$437,011	150	$145,597
65		1902	624	260,410	124	84,931	28	19,895	.....	.....	105	94,304
66	Kentucky	1907	292	138,729	35	27,844	7	7,920	58	35,817	21	20,289
67		1902	165	78,309	26	18,392	13	7,752	.....	.....	20	16,041
68	Tennessee	1907	177	48,478	37	30,510	16	18,060	106	63,382	18	18,090
69		1902	141	47,282	22	12,214	.....	.....	.....	.....	15	13,573
70	Alabama	1907	209	81,515	42	34,364	10	7,495	113	60,835	18	18,232
71		1902	63	22,726	21	14,217	1	900	.....	.....	12	10,960
72	Mississippi	1907	39	15,119	25	15,811	9	7,630	30	17,471	22	19,938
73		1902	19	5,708	6	4,432	2	2,100	.....	.....	7	6,190
74	Louisiana	1907	214	100,905	34	27,171	3	4,200	217	139,896	21	23,436
75		1902	86	42,810	23	19,303	4	3,240	.....	.....	23	20,340
76	Arkansas	1907	57	23,053	21	12,096	16	13,524	36	22,795	13	11,654
77		1902	19	8,548	4	2,541	.....	.....	.....	.....	12	6,930
78	Oklahoma[2]	1907	35	13,585	6	2,924	3	1,848	11	6,616	2	1,218
79	Texas	1907	207	92,786	51	34,722	15	11,441	137	90,199	35	32,740
80		1902	131	55,077	22	13,832	8	5,903	.....	.....	16	14,270
81	Western division	1907	2,012	1,274,180	444	391,341	195	244,066	1,594	1,314,909	123	143,233
82		1902	768	407,580	182	154,098	84	77,448	.....	.....	117	131,403
83	Montana	1907	10	12,967	3	2,690	1	1,650	10	13,198	.....	.....
84		1902	19	17,266	7	3,619	1	854	.....	.....	3	4,927
85	Colorado	1907	147	92,681	25	25,004	19	23,041	85	74,535	29	33,555
86		1902	180	72,128	40	35,143	6	6,439	.....	.....	21	24,024
87	Washington	1907	402	342,173	144	119,763	40	38,953	366	306,446	29	34,570
88		1902	121	86,362	68	58,885	20	19,270	.....	.....	26	26,895
89	Oregon	1907	112	71,746	26	18,655	.....	.....	138	116,332	1	540
90		1902	52	34,156	11	8,443	2	2,280	.....	.....	9	9,364
91	California	1907	1,203	706,110	221	199,805	126	169,637	886	707,344	58	67,814
92		1902	399	261,250	53	45,008	54	47,885	.....	.....	56	64,573
93	All other Western states and territories.[3]	1907	72	48,453	25	25,424	9	10,785	109	100,054	6	6,754
94		1902	47	26,388	3	3,000	1	720	.....	.....	2	1,620
95	Hawaii and Porto Rico[4]	1907	28	9,390	6	3,934	2	2,590	19	13,607	8	7,793
96		1902	44	17,219	7	2,608	1	1,320	.....	.....	7	7,717

[1] Not reported separately in 1902.
[2] No company reported in 1902.

BY STATES AND GEOGRAPHIC DIVISIONS: 1907 AND 1902—Continued.

WAGE-EARNERS—continued.												
Dynamo and switchboard men.		Firemen.		Other mechanics.		Hostlers, stablemen, etc.		Watchmen.		All other employees.		
Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	
79	$58,074	248	$151,505	192	$134,198	35	$16,487	58	$29,427	1,446	$775,631	64
50	31,216	136	71,582	388	270,299	60	29,999	59	32,600	666	319,866	65
26	18,951	55	33,655	22	16,403	1	468	3	1,750	155	86,583	66
2	1,120	32	17,039	98	67,544	11	6,022	14	10,285	33	16,691	67
5	4,020	34	18,261	25	14,890	4	2,382	8	3,373	383	199,723	68
3	1,095	19	6,988	67	33,227	8	3,291	12	4,200	85	35,978	69
10	8,891	30	18,988	67	45,473	6	3,215	22	11,157	253	95,542	70
9	4,790	16	8,210	56	39,886	15	7,840	6	2,190	259	119,551	71
3	1,480	26	14,980	5	2,988	2	1,092	.....	.....	25	9,758	72
2	913	10	5,633	5	3,148	.....	.....	1	639	19	7,385	73
13	11,080	25	17,507	10	6,770	6	2,284	14	9,136	350	245,298	74
31	21,016	25	16,780	97	79,533	12	7,020	18	10,934	206	112,107	75
8	5,069	18	10,133	17	14,125	6	3,773	5	2,178	53	35,803	76
2	1,682	16	6,233	14	12,069	6	2,310	1	480	6	2,404	77
.....	.....	2	961	6	3,190	4	963	1	196	45	11,629	78
14	8,583	58	37,020	40	30,359	6	2,310	5	1,637	182	91,295	79
1	600	18	10,699	51	34,892	8	3,516	7	3,872	58	25,690	80
244	207,444	138	115,090	1,204	894,458	64	46,687	115	85,535	1,564	1,200,848	81
89	73,729	209	157,893	615	504,201	91	60,980	42	28,140	399	302,152	82
.....	.....	.....	.....	3	4,050	2	2,190	6	6,054	22	27,780	83
3	2,708	4	4,407	8	9,932	4	3,452	1	1,148	8	8,337	84
12	11,143	37	31,353	143	114,278	1	730	17	10,488	74	63,995	85
10	9,988	37	30,737	37	28,601	2	1,620	2	1,104	72	45,863	86
71	59,516	56	43,708	118	105,819	11	4,893	15	10,476	377	289,803	87
25	20,560	49	35,880	73	63,744	5	3,780	4	2,580	99	76,528	88
.....	.....	.....	.....	.....	.....	.....	.....	13	11,418	52	47,192	89
2	1,440	16	11,420	43	36,874	1	600	8	5,465	26	15,535	90
137	118,673	39	34,894	930	669,411	46	35,775	58	43,979	945	698,785	91
48	38,433	101	74,333	437	354,352	77	50,442	25	16,673	183	150,234	92
24	18,112	6	5,135	1	900	4	3,090	6	3,120	94	73,293	93
1	600	2	1,116	17	10,698	2	1,086	2	1,170	11	5,655	94
3	287	12	5,092	19	9,620	6	1,503	5	1,896	54	20,504	95
.....	.....	5	2,895	27	17,133	47	14,111	5	1,210	35	12,022	96

[a] Includes states and territories as follows: 1907—Arizona, 4; Idaho, 2; Nevada, 1; New Mexico, 2; Utah, 3. 1902—Arizona, 1; Idaho, 1; New Mexico, 1; Utah, 3.
[b] Includes companies as follows: 1907—Hawaii, 1; Porto Rico, 3. 1902—Hawaii, 3; Porto Rico, 2.

CHAPTER IX.

SALE OF CURRENT BY ELECTRIC-RAILWAY COMPANIES.

There appears to be a tendency among electric-railway companies to control all electric plants along their lines of service. There are numerous instances in which such plants are controlled by railway companies through the ownership of a part of the stock or bond issue. In such cases, however, the statistics for the electric plants are entirely distinct from those for the railways, and are included not in the present report on street and electric railways, but in the report on central electric light and power stations. When, on the other hand, such plants, from which current is sold, are owned and operated directly by the electric-railway company, the statistics have been included in the street and electric-railway census, and are included in the present report. As it was obviously desirable that the statistics for these electric light and power plants owned and operated by electric-railway companies should also be included with those of the census report on central light and power stations, these statistics, as far as possible, have been segregated and presented separately. Of the operating railway companies reporting the ownership of light and power plants, 29 had systems of bookkeeping which made possible the preparation of separate census data for the two branches of the business. Accordingly, the statistics for these light and power plants were assigned to the report on central electric light and power stations, except that the investments in such light plants, which amounted to $17,316,051, are carried in the balance sheets of the railway companies.[1]

There were 330 railway companies in 1907 and 251 in 1902 that reported the sale of electricity in large or small quantities to other electric companies or for general commercial purposes. The statistics for the sale of electricity by these companies, for the respective censuses, have been included in the report on street and electric railways, because it was impossible to segregate the capital, expenses, employees, etc., for the two branches of service. The importance and growth of this branch of the electric-railway industry are shown by the amounts and the increase of the annual income derived from it. The income from this source was $7,703,574 in 1902 and $20,093,302 in 1907, an increase of $12,389,728, or 160.8 per cent.

[1] See also p. 116.

A further indication of the magnitude of the interests involved in this service is the amount, given in Table 125, as expended for wages, supplies, and expenses incident to the electric service. Although the expenditure for such purposes was returned as $6,168,873 in 1907 and $2,188,753 in 1902, neither amount represents the entire expense, because in most cases the expenses of the power plant and the expenses of other service incident to the sale of the current could not be separated.

The growth of electric railways since the census of 1902 has been accompanied by a large increase in the sale of electricity to other roads or to the general public for light, power, or other purposes. The establishment of electric departments by railways in the smaller cities and towns affords electric light and power service in places that could not support independent light plants, and in many cases is an additional source of revenue for the railways without a corresponding increase in expense, since commercial light and power service supplied from railway lines can often be arranged as an aid in equalizing the current load.

There were 177 railway companies in 1907 and 118 in 1902 that reported the sale of current in such large quantities and for use in such a variety of industries that it was deemed essential to secure some detailed statistics concerning this branch of the business, although it was not possible to make a complete segregation so as to combine the statistics with those in the special report on central electric light and power stations. The statistics that could be separated are summarized in this chapter.

Income.—Although the statistics given in the following table do not represent the entire income derived from the sale of electric current by railway companies, the items for which the income is shown separately indicate the various uses for which electricity is now being supplied.

Practically all of the machines devoted to the generation of current for sale by these companies were located in the power houses containing the equipment for the generation of current to be used in the operation of the railways. Of the 177 companies selling current in large quantities in 1907, 6 did not generate their own power but purchased their entire current supply from other companies.

TABLE 166.—*Electric light and power plants operated by electric railways—Income, by class of service: 1907 and 1902.*

CLASS OF SERVICE.	INCOME.		Per cent of increase.
	1907	1902	
Number of operating companies	177	118	50.0
Income:			
Aggregate	$17,291,824	$6,469,726	167.3
From electric service	16,576,555	6,271,815	164.3
Lighting	13,273,295	5,492,669	141.7
Commercial	11,018,338	4,074,684	170.4
Public	2,254,957	1,417,985	59.0
Arc lamps	1,953,874	1,267,384	54.2
Incandescent lamps	297,188	150,601	97.3
Other lamps (Nernst, vacuum, vapor, etc.)	3,895	(1)	.....
Stationary-motor service	2,686,013	768,040	249.6
Electric-railway service (exclusive of company's own cars)	330,509	6,630	4,885.1
Electric heating, cooking, welding, etc.	2,148	77	2,689.6
Sale of current to other electric companies	212,375	(2)	.....
Charging automobiles	1,959	0	(3)
All other electric service	72,156	4,390	1,543.6
From sale of supplies and fixtures	240,704	(2)	.....
From all other sources	474,565	197,911	139.8
Estimated amount of income lost because of free service furnished municipality or other government	33,697	(1)	.....

[1] Not reported.
[2] Not reported separately.
[3] Increased one hundred and eighteen fold.

From the large amount of income from "Lighting" it is evident that the railway companies are engaging extensively in this branch of the industry and are relying upon it for a substantial part of their income. The total income from lighting increased from $5,492,669 in 1902 to $13,273,295 in 1907, or 141.7 per cent. The commercial lighting consists principally in supplying current for incandescent lamps in private houses and places of business and for electric signs, while the public lighting consists in supplying current for arc, incandescent, or other lamps used in lighting buildings and streets for a municipality or other government.

Commercial lighting is by far the most important source of income, although the increase in the stationary-motor and other classes of service has tended to decrease its relative importance.

There was a decided development in the stationary-motor service, and the increase in the income from this source in 1907 as compared with 1902 amounted to $1,916,973, or 249.6 per cent. The reported income does not include the income from small fan motors, which are usually supplied with current through the meters employed to measure the lighting service. The increase in the income from the sale of current to other railway companies indicates the development of the tendency, especially in cities and suburban centers, for roads having no power houses, or generating insufficient power, to purchase current. The amounts received from "all other sources" represent principally rents, steam and hot-water heating, and labor and material for wiring.

It should be noted that the railway companies furnish considerable current to municipal and other governments free of charge, but it was impossible to obtain a complete report of such service from all companies. It was estimated that the income lost during 1907 on account of this free service amounted to $33,697.

For further information concerning the utilization of electric current, reference should be made to the special report on Central Electric Light and Power Stations, where the statistics for the sale of current for all commercial purposes are presented.

Description of service.—The number of lamps, motors, and meters wired for service by the companies for which the income is shown in Table 166 are given in the following table:

TABLE 167.—*Electric light and power plants operated by electric railways—Service equipment: 1907 and 1902.*

CHARACTER OF SERVICE.	EQUIPMENT.		Per cent of increase.
	1907	1902	
Number of operating companies	177	118	50.0
Arc lighting—number of lamps in service:			
Aggregate	80,102	33,863	136.5
Commercial	50,674	16,185	213.1
Open	4,491	2,582	73.9
Inclosed	46,183	13,603	239.5
Public	29,428	17,678	66.5
Open	4,644	10,868	[1] 57.3
Inclosed	24,784	6,810	263.9
Direct current	22,619	20,430	10.7
Commercial	11,895	8,872	34.1
Open	882	2,413	[1] 63.4
Inclosed	11,013	6,459	70.5
Public	10,724	11,567	[1] 7.3
Open	4,504	10,495	[1] 57.1
Inclosed	6,220	1,072	480.2
Alternating current	57,483	13,424	328.2
Commercial	38,779	7,313	430.3
Open	3,609	169	2,035.5
Inclosed	35,170	7,144	392.3
Public	18,704	6,111	206.1
Open	140	373	[1] 62.5
Inclosed	18,564	5,738	223.5
Incandescent lighting—number of lamps in service:			
Aggregate	4,545,839	1,442,685	215.1
Commercial	4,487,081	1,423,659	215.2
Public	58,158	19,026	205.7
Sixteen candlepower	3,920,237	1,326,368	195.6
Commercial	3,871,786	1,313,303	194.8
Public	48,451	13,065	270.8
Thirty-two candlepower	219,492	32,716	570.9
Commercial	217,228	31,597	587.5
Public	2,264	1,119	102.3
All other candlepower	406,110	83,601	385.8
Commercial	398,667	78,759	406.2
Public	7,443	4,842	53.7
Other electric lighting (Nernst, vacuum, vapor, etc.)—number of lamps in service:			
Total	28,641	(2)	.....
Commercial	28,267	(2)	.....
Public	374	(2)	.....
Stationary motors:			
Number	20,468	10,049	103.7
Horsepower	158,923	35,688	345.3
Meters on consumption circuits, number	213,886	56,601	277.9

[1] Decrease. [2] Not reported.

The increase in lighting service, measured by number of lamps, was largest in the use of incandescents, which show an increase of 215.1 per cent, as compared with a gain of 136.5 per cent in the arc service; furthermore, the growth of commercial service is much greater than that of public service. The distribution of the incandescent lamps reported has remained constant—that is, 98.7 per cent of them were for commercial service and 1.3 per cent for public service in both 1902 and 1907; on the other hand, the arc lamps in public service constituted 52.2 per cent of the total number of arc lamps reported

in 1902 but only 36.7 per cent in 1907, and the commercial arc lamps increased from 47.8 per cent of the total number in 1902 to 63.3 per cent in 1907.

Although the number of arc lamps increased from 33,863 in 1902 to 80,102 in 1907, or 136.5 per cent, this gain was wholly in inclosed arcs, which increased from 20,413 to 70,967, or 247.7 per cent, while the open arcs in use decreased from 13,450 to 9,135, or 32.1 per cent. The loss in number of open arcs was entirely in the arcs in public service. The number in commercial service increased from 2,582 to 4,491, or 73.9 per cent, while the number in public service decreased from 10,868 to 4,644, or 57.3 per cent. The inclosed arcs formed 88.6 per cent of the total number of arcs in use in 1907, as compared with 60.3 per cent for 1902.

The statistics in regard to stationary-motor service show that the average horsepower capacity per motor in 1907 was more than twice that for 1902, the averages being 7.76 for 1907 and 3.55 for 1902.

In addition to the lamps from which the railway companies received an income, practically all companies reported the use of lamps in lighting their own properties—offices, power houses, shops, car houses, and pleasure resorts. In 1907 there were 141,998 incandescent lamps, 2,606 arc lamps, and 581 lamps of other varieties used for this purpose by the railway companies having light and power departments, as compared with 25,120 incandescent lamps and 743 arc lamps in 1902. All these lamps received current from the railway power plants.

Income and description of service, by states and territories.—Tables 168 and 169, which follow, are detailed summaries, by states and territories, of the income and equipment of electric light and power plants operated by electric railways for 1907.

TABLE 168.—ELECTRIC LIGHT AND POWER PLANTS OPERATED BY ELECTRIC RAILWAYS—INCOME BY CLASS OF SERVICE, BY STATES AND TERRITORIES: 1907.

STATE OR TERRITORY.	Number of operating companies.	INCOME BY CLASS OF SERVICE.													Estimated amount of income lost because of free service furnished municipality or other government.
		Aggregate.	Commercial lighting.	Public lighting (furnished municipality or other government for buildings and streets).				Stationary-motor service.	Electric-railway service (exclusive of company's own cars).	Electric heating, cooking, welding, etc.	Sale of current to other electric companies.	Charging automobiles.	All other electric service.	Sale of supplies and fixtures.	All other sources.	
				Total.	Arc lamps.	Incandescent lamps.	Other lamps (Nernst, vacuum, vapor, etc.).									
United States	177	$17,291,824	$11,018,338	$2,254,957	$1,953,874	$297,188	$3,895	$2,685,013	$330,509	$2,148	$212,375	$1,050	$72,156	$240,704	$474,505	$33,607
Alabama	5	671,425	528,840	57,789	57,146	643	.....	84,796	.....	.....	.....	.....	.....	.....	.....	200
Arkansas	5	383,631	319,105	21,419	14,798	6,621	.....	39,529	.....	.....	.....	.....	3,172	.....	406	.....
Florida	5	380,022	290,007	30,200	29,725	6,475	.....	49,427	.....	.....	.....	.....	57	2,896	1,435	1,195
Georgia	7	1,498,822	965,998	203,746	182,902	20,844	.....	284,938	15,510	.....	2,510	.....	12,264	6,021	7,835	1,000
Illinois	12	943,859	594,309	90,990	87,919	2,071	1,000	106,664	37,589	40	.....	75	.....	5,126	109,066	1,600
Indiana	7	331,342	211,081	50,429	58,682	747	.....	43,710	.....	1,000	.....	.....	.....	4,602	11,460	25
Iowa	11	594,884	323,490	105,208	102,745	2,493	60	103,091	6,000	200	1,800	240	867	24,002	29,806	2,909
Kansas	3	146,009	55,642	49,208	24,683	24,525	.....	27,074	.....	30	.....	.....	.....	14,715	.....	1,800
Maine	3	188,450	137,535	18,102	13,288	4,814	.....	29,618	1,800	162	.....	20	.....	1,011	208	52
Michigan	7	345,813	198,807	57,522	49,579	7,943	.....	30,778	34,445	210	.....	.....	.....	23,911	134	.....
Mississippi	6	317,855	228,481	63,872	59,828	1,581	2,463	15,400	.....	.....	.....	.....	300	8,901	901	.....
Missouri	4	274,929	179,020	16,085	14,885	1,200	.....	45,852	.....	.....	.....	.....	.....	347	33,625	.....
New York	11	621,856	292,623	239,750	114,763	124,987	.....	74,058	5,671	.....	.....	.....	581	519	8,654	200
North Carolina	8	491,081	325,224	64,408	61,690	2,718	.....	81,282	2,694	.....	.....	.....	43	13,967	3,463	.....
Ohio	20	1,597,195	891,209	293,346	278,129	14,845	372	210,712	13,409	100	52,170	613	.....	30,689	104,947	3,470
Pennsylvania	7	104,703	75,614	17,832	15,637	2,195	.....	9,422	.....	.....	.....	10	.....	1,825	.....	400
South Carolina	3	438,911	221,289	51,004	45,037	5,967	.....	164,156	.....	.....	.....	.....	1,034	.....	1,428	.....
Tennessee	3	700,100	510,304	24,500	24,500	.....	.....	146,798	.....	.....	.....	.....	18,498	.....	.....	.....
Texas	4	484,860	360,420	30,650	18,431	12,219	.....	93,058	.....	.....	.....	.....	.....	732	.....	.....
Virginia	10	1,444,593	956,696	165,786	154,875	10,911	.....	172,207	120,165	.....	.....	.....	10,575	1,637	8,527	.....
Washington	6	1,295,428	866,494	31,903	25,693	6,210	.....	221,085	15,519	.....	.....	50	.....	40,544	119,833	862
West Virginia	7	326,752	213,817	69,106	62,496	6,610	.....	9,102	14,189	.....	.....	.....	17,220	.....	3,318	2,127
Wisconsin	7	1,024,621	565,687	200,352	199,727	625	.....	194,135	.....	250	.....	51	1,840	42,122	20,184	3,175
All other states and territories [1]	16	2,684,017	1,700,646	286,660	256,716	29,944	.....	448,121	54,518	150	155,895	.....	5,705	16,987	9,335	14,682

[1] Includes states and territories as follows: California, 1; Colorado, 2; Connecticut, 1; Kentucky, 2; Louisiana, 2; Maryland, 1; Massachusetts, 1; Minnesota, 1; Montana, 1; Nebraska, 1; New Hampshire, 1; New Mexico, 1; and Utah, 1.

TABLE 169.—ELECTRIC LIGHT AND POWER PLANTS OPERATED BY

	STATE OR TERRITORY.	Number of operating companies.	ARC LIGHTING—NUMBER OF LAMPS IN SERVICE.												
			Aggregate.	Total.				Direct current.				Alternating current.			
				Commercial.		Public.		Commercial.		Public.		Commercial.		Public.	
				Open.	Inclosed.	Open.	Inclosed.	Open.	Inclosed.	Open.	Inclosed.	Open.	Inclosed.	Open.	Inclosed.
	United States...	177	80,102	4,491	46,183	4,644	24,784	882	11,013	4,504	6,220	3,609	35,170	140	18,564
1	Alabama	5	2,633	.....	1,759	.....	874	.....	1,015	.....	.....	.....	744	.....	874
2	Arkansas	5	1,527	.....	1,368	.....	159	.....	350	.....	.....	.....	1,018	.....	159
3	Florida	5	745	109	287	.....	349	109	.....	.....	.....	.....	287	.....	349
4	Georgia	7	6,172	164	3,308	727	1,973	161	1,655	707	239	3	1,653	20	1,734
5	Illinois	12	4,099	103	2,447	278	1,271	.....	1,141	278	640	103	1,306	.....	631
6	Indiana	7	2,133	.....	1,196	74	863	.....	.....	74	661	.....	1,196	.....	202
7	Iowa	11	2,886	38	1,219	234	1,395	30	140	234	51	8	1,079	.....	1,344
8	Kansas	3	483	39	53	93	298	39	5	93	.....	.....	48	.....	298
9	Maine	3	658	.....	454	104	100	.....	101	104	52	.....	353	.....	48
10	Michigan	7	1,308	.....	590	89	629	.....	.....	89	.....	.....	590	.....	629
11	Mississippi	6	899	.....	254	.....	645	.....	.....	.....	.....	.....	254	.....	645
12	Missouri	4	1,079	.....	890	.....	189	.....	.....	.....	.....	.....	890	.....	189
13	New York	11	2,566	759	306	163	1,338	.....	31	103	400	759	275	.....	938
14	North Carolina	8	1,821	.....	837	194	790	.....	.....	194	.....	.....	837	.....	790
15	Ohio	20	7,152	.....	2,659	359	4,134	.....	1,208	249	2,555	.....	1,361	110	1,579
16	Pennsylvania	7	619	.....	338	14	267	.....	12	14	.....	.....	326	.....	267
17	South Carolina	3	1,114	.....	432	.....	682	.....	.....	.....	275	.....	432	.....	407
18	Tennessee	3	3,914	2,705	809	.....	340	62	.....	.....	.....	2,703	809	.....	340
19	Texas	4	540	7	299	.....	234	.....	12	.....	.....	7	287	.....	234
20	Virginia	10	5,056	42	3,305	483	2,126	42	1,913	483	270	.....	1,392	.....	1,856
21	Washington	6	3,340	.....	2,032	.....	408	.....	1,474	.....	.....	.....	1,458	.....	408
22	West Virginia	7	1,259	.....	325	.....	934	.....	.....	.....	34	.....	325	.....	900
23	Wisconsin	7	5,391	420	1,773	1,348	1,850	420	1,057	1,348	15	.....	716	.....	1,835
24	All other states and territories.[1]	16	21,808	45	18,343	484	2,936	19	809	474	1,028	26	17,534	10	1,908

[1] Includes states and territories as follows: California, 1; Colorado, 2; Connecticut, 1; Kentucky, 2; Louisiana, 2; Maryland, 1; Massachusetts, 1; Minnesota, 1; Montana, 1; Nebraska, 1; New Hampshire, 1; New Mexico, 1; and Utah, 1.

ELECTRIC RAILWAYS—SERVICE EQUIPMENT, BY STATES AND TERRITORIES: 1907.

Aggregate.	INCANDESCENT LIGHTING—NUMBER OF LAMPS IN SERVICE.								OTHER ELECTRIC LIGHTING (NERNST, VACUUM, VAPOR, ETC.)—NUMBER OF LAMPS IN SERVICE.			STATIONARY MOTORS.		Number of meters on consumption circuits.	
	Total.		16 candlepower.		32 candlepower.		All other candlepower.		Total.	Commercial.	Public.	Number.	Horsepower.		
	Commercial.	Public.	Commercial.	Public.	Commercial.	Public.	Commercial.	Public.							
4,545,839	4,487,681	58,158	3,871,786	48,451	217,228	2,264	398,667	7,443	28,641	28,267	374	20,468	158,023	213,886	
151,108	151,003	105	150,648	105	355	.....	.....	.....	.....	.....	.....	989	4,923	9,331	1
88,897	88,404	493	78,219	.....	1,362	131	8,823	362	1	1	.....	898	2,420	6,305	2
83,066	81,790	1,276	81,165	1,235	250	.....	375	41	71	71	.....	580	2,624	5,404	3
322,843	320,761	2,082	313,261	1,536	7,500	.....	.....	546	167	167	.....	1,853	14,377	12,572	4
270,367	270,193	174	238,140	100	7,837	54	24,216	20	391	114	277	1,490	5,952	10,862	5
91,304	91,178	126	72,989	106	4,473	.....	13,716	20	80	80	.....	473	2,123	4,842	6
150,693	150,289	404	114,592	245	6,620	159	29,077	.....	2,838	2,832	6	947	5,408	7,356	7
36,000	29,000	7,000	5,200	6,500	22,300	150	1,500	350	65	65	.....	164	1,491	1,787	8
82,363	82,036	327	60,974	238	7,854	75	13,208	14	.....	.....	.....	283	2,279	2,353	9
103,462	100,902	2,560	92,740	2,371	2,550	85	5,612	104	202	202	.....	527	3,277	5,360	10
66,240	65,620	620	58,920	405	5,000	215	1,700	.....	204	148	56	151	1,065	4,160	11
88,930	88,820	110	65,999	60	22,578	.....	243	50	22	22	.....	392	2,621	3,966	12
134,363	124,273	10,090	119,697	5,051	1,451	21	3,125	5,018	.....	.....	.....	482	5,446	5,434	13
126,131	124,681	1,450	102,882	1,450	3,697	.....	18,102	.....	380	380	.....	556	5,043	6,562	14
522,022	516,469	5,553	386,692	5,198	32,705	150	97,072	205	1,335	1,300	35	2,275	17,613	19,211	15
31,331	31,057	274	25,988	150	564	116	4,505	8	169	169	.....	70	451	1,251	16
115,767	110,370	5,397	101,370	5,391	6,000	6	3,000	.....	.....	.....	.....	339	7,598	3,629	17
191,491	191,491	.....	177,439	.....	3,759	.....	10,293	.....	31	31	.....	801	10,083	9,288	18
82,656	80,811	1,845	80,811	1,845	.....	.....	.....	.....	9,251	9,251	.....	275	3,349	5,729	19
373,928	372,713	1,215	284,321	849	7,030	230	81,362	136	22	22	.....	894	15,416	15,553	20
293,672	292,068	1,604	276,518	1,564	1,635	40	13,915	.....	566	566	.....	1,614	12,861	22,181	21
88,967	78,571	10,396	68,662	10,005	4,459	391	5,450	.....	187	187	.....	153	857	4,171	22
382,724	382,278	446	381,278	396	.....	50	1,000	.....	11,108	11,108	.....	1,914	13,121	12,708	23
667,514	662,903	4,611	533,281	3,651	67,249	391	62,373	569	1,551	1,551	.....	2,348	18,525	33,871	24