

Canadian Railways and Railway Expenses*

Comparison of Costs and Revenue Over Fifty Year Period—Ton-Mile Statistics Since 1907—Increased Costs Met by Increased Efficiency—Recent Jumps Too Great, However, and More Revenue Necessary

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IN trying to establish when the high cost of living began to affect the operation of Canadian railways, I came across the interesting fact that away back in 1875 the railways of Canada, on the average, got more for each ton of freight transported than they have received in any year since then, up to and including the year ended June 30th, 1918, which is the last year for which the government statistics for all Canadian lines are available.

Beyond any doubt, the average distance the freight was hauled in 1875 was less than in 1918, as in 1875 there was no transcontinental line. The Grand Trunk was in operation from Sarnia to Rivière du Loup. The Intercolonial was nearing completion between the latter point and Halifax; a considerable part of the through I.C.R. line, which was opened in 1876, was already in operation. Canada, in all, had 4,804 miles in 1875. The cost of running a train one mile was about 90 cents, and as this subsequently declined, and was not exceeded until 1901, it would appear that the period between 1890 and 1899, which has been taken by the Department of Labor as a basing period, would be suitable also for a starting-point measuring the rise in the railways' cost of living.

Operating Methods Improved

Unfortunately, the recognized basic statistical units, the ton mile (i.e., moving one ton of freight one mile) and the passenger mile (moving one passenger one mile) were not incorporated into Canadian railway statistics until 1907, when the government adopted new forms of report, based on those in use in the United States, so that for the period from 1875 to 1906 we cannot measure the efficiency of railway operation in Canada with any great accuracy. We find, however, that in 1875, on the average, a locomotive moved only 5,786 tons of freight and 5,296 passengers, whereas in 1906 the average locomotive moved 19,773 tons and 9,549 passengers. When this information is coupled with the facts that the average earnings per ton carried showed a decline, whereas the earnings per freight train mile showed a steady move upwards, a pretty good indication is obtained that the advances in methods of operating, which more reliable bases of comparison now enable us to measure relatively accurately, were also being carried on during this period, and, of course, this we know to be the case.

By 1907 the cost of running a train one mile had advanced to \$1.249, or an increase of 57 per cent. over the average cost for the years 1890 to 1899, inclusive.

Increased Costs Offset by Improvements

On account of proper statistical data not being available prior to 1907, that year must be the starting-point for a more careful analysis of the rising cost of operation. From 1907 to 1918, for a period of eleven years, the operating record is one of which the management and employees of Canadian railways may well feel proud. In the face of the increases in the cost of labor and every known commodity, the fact that the railways, year by year, up to and including 1917, were able to practically offset increases in expenses by economies of operation, and with an average revenue per ton per mile that declined, were able to generally increase the net earnings per mile is remarkable. When the magnitude

of the increases that have taken place, pertaining particularly to the railways' expenses, is considered, it is evident that the work which has enabled this to be done must be ranked as one of the greatest achievements of the age.

Perhaps it is appreciation of the price at which the freight transportation service of this country has been performed by Canadian railways during the last decade that makes me less pessimistic than some economists as to whether the lines constructed and on which this wonderful record has in part been made are an asset or a liability to the country.

Average Return Low

The following table shows the very low average return the railways got for moving a ton of freight one mile during the period. This unit is generally regarded as the mean of all freight rates:—

Rate in decimals of 1 cent.

1907	..... .815	1911	..... .777	1915	..... .751
1908	..... .723	1912	..... .757	1916	..... .653
1909	..... .727	1913	..... .758	1917	..... .690
1910	..... .739	1914	..... .742	1918	..... .736

While individual groups, of course, paid higher class rates, yet when all the tonnage handled is considered, this is the return the railways got, and represents the cost to the public of the freight movement in Canada per ton per mile.

How Railways' Expenses Went Up

During this period (1907-1918) Canada absorbed 16,427 miles of main track mileage. I say "absorbed," because the records show that the average utility of all the lines (which is in a sense a measure of absorption) has increased. The freight density, which is the term used for the number of tons hauled one mile per mile of line, increased from 518,485 tons in 1907 to 798,093 tons in 1918; and, while passenger density fell off a little, it is well known that passenger travel was not encouraged during the war. The travel in 1919 was heavy, and, no doubt, the utility of the lines in respect to passenger business on the average has now been restored.

While a general idea of the magnitude of the railway development may be obtained from noting that the operating expenses of the railways increased from a total of \$146,738,214 in 1907 to a total of \$273,955,436 in 1918, yet, to make a fair comparison, it is necessary to get down to suitable unit bases.

Total operating expenses per mile of line increased by \$2.425, viz., from \$4.621 to \$7.046, or 52½ per cent. The average compensation of the individual railway employee increased from \$473.50 in 1907 to \$1,061.46 in 1918, or 124 per cent. The cost of fuel, which is the largest single item of material, increased from \$2.69 to \$5.17 per ton, or 92 per cent.

It should here be pointed out that these increases in expenses do not include the very much heavier expenses which were laid on the railways in Canada in the latter half of 1918 and in the year 1919 by reason of adopting the McAdoo scale of wage increases. To a certain extent these expenses will be reflected in the statistics for the year ended June 30th, 1919; these are not yet available, but later on in the article I shall deal with these expenses.

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