Lee, Higginson & Company.
44, State Street.

Boston. May 8, 1901.

Dear Sir:

We take pleasure in sending you an analytical comparison, prepared by our Statistician, Mr. Josiah F. Hill, of the operations of the following systems:-

Chicago & North Western;
Chicago, Burlington & Quincy;
Chicago, Milwaukee & St. Paul;
Chicago, Rock Island & Pacific.

We believe that you will find this analysis of especial interest at this time, and that it will be found useful as a basis for estimating the intrinsic values of the bonds and stocks of the companies named, as compared with their current market prices.

The data and conclusions given respecting the income of the Chicago, Burlington & Quincy system should, we think, be considered in connection with our circular letter of April 30, 1901, in regard to the proposed sale of a controlling interest in Chicago, Burlington & Quincy stock to the Northern Pacific and Great Northern Railway Companies and the intrinsic value of the new four per cent. collateral 5-20 year bonds, which those two companies jointly propose to issue in payment for such stock.

Yours very truly,

LEE, HIGGINSON & CO.

May 8, 1901

A COMPARISON

OF THE

RESULTS OF OPERATION

OF THE

Chicago and North Western, Chicago, Burlington and Quincy, Chicago, Milwaukee and St. Paul AND Chicago, Rock Island and Pacific Railway Systems

FOR THE LAST FISCAL YEAR,

AND AN ESTIMATE OF RESULTS FOR THE CURRENT FISCAL YEAR.

LEE, HIGGINSON & CO.,
44 STATE STREET,
BOSTON.

OFFICE OF
LEE, HIGGINSON & CO.,
44 STATE STREET,
BOSTON.

MAY 8, 1901.

A COMPARISON OF THE RESULTS OF OPERATION

FOR THE LAST FISCAL YEAR

OF THE

CHICAGO & NORTHWESTERN, - - (fiscal year ended May 31, 1900).

CHICAGO, BURLINGTON & QUINCY, - (fiscal year ended June 30, 1900).

CHICAGO, MILWAUKEE & ST. PAUL - (fiscal year ended June 30, 1900).

AND

CHICAGO, ROCK ISLAND & PACIFIC - (fiscal year ended March 31, 1900).

RAILWAY SYSTEMS.

FUNDED DEBT AND CAPITAL STOCK OUTSTANDING AT THE CLOSE OF THE FISCAL YEARS ABOVE SPECIFIED.

(Not including the Companies' securities held in treasury or in sinking funds.)

FUNDED DEBT.

	Amount.	Annual Interest.	Miles of Road Owned.	Amount of Bonds Per Mile.	Annual Interest Per Mile.	Average Rate of Interest.
C. & N. W. (*a*)......	$135,112,500	$7,450,730	6,863	$19,687	$1,086	5.51%
C., B. & Q............	136,872,800	6,805,792	7,732	17,702	880	4.97%
C., M. & St. P.......	122,256,000	6,485,550	6,397	19,111	1,014	5.30%
C., R. I. & P.........	66,681,000	2,909,240	3,076	21,678	946	4.36%

(*a*) Includes the Fremont, Elkhorn & Missouri Valley Ry. and all securities outstanding representing the cost thereof. All of the capital stock of that Company is owned by the Chicago & Northwestern, and a large portion of the cost of the Fremont, Elkhorn & Missouri Valley property is represented by Chicago & Northwestern bonds outstanding. The Fremont, Elkhorn & Missouri Valley may therefore properly be regarded as a part of the Chicago & Northwestern's owned system, although it is operated separately. Does not include the $9,800,000 Chicago & Northwestern Sinking Fund Five Per Cent. Debentures of 1933, which were issued for purchase of stock-control of the Chicago, St. Paul, Minneapolis & Omaha Co., the dividends received from which are now more than sufficient to pay the interest on such $9,800,000 of bonds. In stating its accounts, the Company applies such dividends to reduce the total amount of its interest charges, instead of treating them as an addition to its gross income.

CAPITAL STOCK.

	Preferred Stock.	Common Stock.	Total.	Amount Per Mile of Road.		
				Preferred	Common.	Total.
C. & N. W..............................	$22,395,160	$39,114,678	$61,509,838	$3,263	$5,699	$8,962
C., B. & Q...............................	....	98,447,500	98,447,500	....	12,732	12,732
C., M. & St. P.........................	40,454,900	47,146,600	87,601,500	6,324	7,370	13,694
C., R. I. & P.............................	....	49,921,400	49,921,400	....	16,229	16,229

SUMMARY OF BONDS AND STOCK PER MILE OF ROAD OWNED.

	Bonds.	Preferred Stock.	Common Stock.	Total Bonds and Stock.
C. & N. W (*a*)	$19,687	$3,263	$5,699	$28,649
C., B. & Q	17,702		12,732	30,434
C., M. & St. P.	19,111	6,324	7,370	32,805
C., R. I. & P.	21,678		16,229	37,907

(*a*) Including Fremont, Elkhorn & Missouri Valley.

DIVIDEND CONDITIONS.

Dividends are declarable in the following order:

CHICAGO & NORTHWESTERN:

(1) Preferred, 7% per annum (non-cumulative).
(2) Common, 7% " "
(3) Preferred, 3% " "
(4) Common, 3% " "
(5) Preferred and Common share alike in any distributions in excess of 10%.

CHICAGO, MILWAUKEE AND ST. PAUL:

(1) Preferred, 7% per annum (non-cumulative);
(2) Common, 7% " "
(3) Preferred and Common share alike in any distributions in excess of 7%.

The Chicago, Burlington & Quincy and Chicago, Rock Island & Pacific Companies have only one class of capital stock.

RESULTS OF OPERATION FOR THE FISCAL YEARS ABOVE NAMED.

(The figures given for the Chicago & Northwestern include the Fremont, Elkhorn & Missouri Valley.)

Average Mileage of Railroad Operated.

C. & N. W.	6,581	miles.
C., M. & St. P.	6,347	"
C., B. & Q	7,724	"
C., R. I. & P.	3,627	"

The mileage of *double-track* lines (included in the above statement) was:

C. & N. W.	624	miles,
C., M. & St. P.	285	"
C., B. & Q	359	"
C., R. I. & P.	240	"

INCOME.

The Income Accounts as reported were as follows:

	Gross Earnings.	Operating Expenses and Taxes.	Net Earnings.	Misc. Income.	Total Income.
C. & N. W.	$47,072,263	$29,869,349	$17,202,914	$529,790	$17,732,704
C., M. & St. P.	41,884,692	(*a*) 28,420,837	13,463,855	144,755	13,608,610
C., B. & Q.	47,535,420	31,422,341	16,113,079	382,194	16,495,273
C., R. I. & P.	22,650,605	14,982,451	7,668,154	701,439	8,369,593

(*a*) Includes $1,475,305 for "additional equipment" and $1,550,000 for "Renewal and Improvement Account."

	CHARGES.						
	Interest and Rentals.	Sinking Funds.	Other Deductions.	Total.	Surplus.	Betterments and New Equipment Charged Against Income of the Year.	Balance Applicable to Dividends.
C. & N. W.	$7,090,778	$202,500	$153,140	$7,446,418	$10,286,286	$4,542,042	$5,744,244
C., M. & St. P.	6,633,170	....	....	6,633,170	6,975,440	....	6,975,440
C., B. & Q.	7,510,240	(*b*) 1,056,272	....	8,566,512	7,928,761	....	7,928,761
C., R. I. & P.	3,907,532	....	....	3,907,532	4,462,061	....	4,462,061

(*b*) For purposes of comparison the sinking-fund payments of the C., B. & Q. have been stated so as to include not only the $487,400 paid directly, as shown in the Company's annual report, but also $568,872 interest on bonds of the C., B. & Q. System kept alive in sinking funds.

The above statement is upon the basis of income *as reported.* In order to present a fair comparison, account must be taken of the essential differences in the rates of expenditure for maintenance of and betterments to road and equipment. Account should also be taken of the sinking-fund payments charged against income, for the reason that such payments represent practically a net reduction in debt which, in a comparison of this kind, cannot be regarded as an ordinary charge against current income.

The amounts *charged against the year's income* for maintenance of and for additions and betterments to road and equipment were:

MAINTENANCE OF AND BETTERMENTS TO ROAD AND STRUCTURES.

	Amount.	Per Mile of Road.	Per Mile of Single Main Track.	Per Train Mile.
C. & N. W.	$9,821,017	$1,492	$1,363	31.93 c.
C., M. & St. P.	9,104,788	1,435	1,373	35.85 c.
C., B. & Q.	8,109,583	1,050	1,003	25.45 c.
C., R. I. & P.	3,875,448	1,068	1,002	25.16 c.

MAINTENANCE OF AND BETTERMENTS TO EQUIPMENT.

	Per Locomotive. (Approximate.)	Per Freight Car. (Approximate.)	Per Passenger Car. (Approximate.)
C. & N. W.	$2,122	$48	$659
C., M. & St. P.	1,594	*83	*600
C., B. & Q.	1,886	48	594
C., R. I. & P.	1,229	59	955

*The C., M. & St. P. reports expenses for repairs of cars as a single item, not separating the expenses for passenger and freight cars. For the purposes of the above comparison the passenger-car repairs have been estimated at $600 per car, and the remainder of the expenses for repairs and renewals of cars has been assigned to freight cars.

(It should be noted that some of the companies named do not report statistics respecting the cost of repairs and the mileage of locomotives and cars in sufficient detail to enable a complete comparison to be made of expenses for repairs and renewals of equipment *per mile run* by locomotives and cars.)

The expenses of the Chicago, Burlington & Quincy for maintenance of way and structures (averaging, as above shown, $1,003 per mile of single main track, or 25.45 cents per train mile) were undoubtedly sufficient to cover considerable betterments to its property in excess of normal requirements for maintenance. Its expenses for maintenance of equipment (averaging $1,886 per locomotive, $48 per freight car and $594 per passenger car) appear to have been, on the whole, somewhat more than sufficient for normal maintenance and renewals.

Having in mind, therefore, that the Chicago, Burlington & Quincy's expenses for maintenance were quite ample, it would seem fair to take the maintenance expenses of that company as a basis, and, for the purposes of this comparison, to bring the maintenance expenses of the other systems to an equality with the Chicago, Burlington & Quincy—*i. e.*, to compute their expenses for maintenance of way and structures at the Chicago, Burlington & Quincy's average rate of expenditures both per mile of single main track and per train mile, and to compute their expenses for maintenance of equipment, per locomotive, freight car and passenger car owned, at the Chicago, Burlington & Quincy's average rates of expenditure for those purposes.

Upon such a basis of comparison, and eliminating sinking-fund payments, the results would appear as follows:

INCOME AS REVISED FOR COMPARISON.

	Gross Earnings.	Operating Expenses and Taxes.	Net Earnings.	Miscellaneous Income, less Miscellaneous Charges.	Total Income.	Interest and Rentals.	Surplus Earned for Stock.
C. & N. W.	$47,072,263	$31,779,062	$15,293,201	$376,650	$15,669,851	$7,090,778	$8,579,073
C., M. & St. P.	41,884,692	25,266,213	16,618,479	144,755	16,763,234	6,633,170	10,130,064
C., B. & Q.	47,535,420	31,422,341	16,113,079	382,194	16,495,273	7,510,240	8,985,033
C., R. I. & P.	22,650,605	15,038,449	7,612,156	701,439	8,313,595	3,907,532	4,406,063

On the above basis of comparison, the several companies earned on the amount of their respective stocks outstanding June 30, 1900:

C. & N. W., 13.95 per cent. on Preferred, and 13.95 per cent. on Common.

C., M. & St. P., 11.56 per cent. on Preferred, and 11.56 per cent. on Common.

C., B. & Q., 9.13 per cent. on stock.

C., R. I. & P., 8.83 per cent. on stock.

The results *per mile of road operated*, both upon the basis of the figures (*a*) *as reported* by the several companies and (*b*) upon the basis of the above *revision* (*i. e.*, bringing the Expenses for Maintenance of Way and of Equipment to a substantial equality with those of the Chicago, Burlington & Quincy and eliminating sinking funds) were:

INCOME PER MILE OF ROAD OPERATED.

(*a*) *As reported:*

	Average Miles Operated.	Gross Earnings.	Expenses and Taxes.	Net Earnings.	Misc. Income, Less Misc. Charges.	Total.	Interest, Rentals and Sinking Funds.	Surplus Earned for Stock.	Betterments and New Equipment.	Balance Applicable to Dividends.
C. & N. W.	6,581	$7,153	$4,539	$2,614	$57	$2,671	$1,108	$1,563	$690	$873
C., M. & St. P.	6,347	6,599	4,478	2,121	23	2,144	1,045	1,099	....	1,099
C., B. & Q.	7,724	6,154	4,068	2,086	49	2,135	1,109	1,026	....	1,026
C., R. I. & P.	3,627	6,245	4,131	2,114	193	2,307	1,077	1,230	....	1,230

(*b*) *As revised for comparison:*

	Gross Earnings.	Expenses and Taxes.	Net Earnings.	Misc. Income, Less Misc. Charges.	Total.	Interest and Rentals.	Surplus Earned for Stock.	Per Cent. Earned on Preferred.	Per Cent. Earned on Common.
C. & N. W.	$7,153	$4,829	$2,324	$57	$2,381	$1,077	$1,304	13.95	13.95
C., M. & St. P.	6,599	3,981	2,618	23	2,641	1,045	1,596	11.56	11.56
C., B. & Q.	6,154	4,068	2,086	49	2,135	972	1,163	....	9.13
C., R. I. & P.	6,245	4,146	2,099	193	2,292	1,077	1,215	....	8.83

Summarizing, the following statement compares:

(*a*) Rates of dividend *now* being *paid*.

(*b*) Rates of income applicable to dividends reported by the several companies in the last fiscal year.

(*c*) Rates of income applicable to dividends after revising maintenance expenses to bring them to a substantial equality with those of the Chicago, Burlington & Quincy, and after eliminating sinking-fund charges.

	(*A*)		(*B*)		(*C*)	
	RATES OF DIVIDENDS NOW BEING PAID.		RATES OF INCOME APPLICABLE TO DIVIDENDS AS SHOWN BY THE COMPANIES' REPORTS.		RATES OF INCOME APPLICABLE TO DIVIDENDS, REVISED ON BASIS ABOVE EXPLAINED.	
	On Preferred.	On Common.	On Preferred.	On Common.	On Preferred.	On Common.
C. & N. W.	7%	6%	10%	8.96%	13.95%	13.95%
C., M. & St. P.	7%	6%	7.96%	7.96%	11.56%	11.56%
C., B. & Q.	....	6%	....	8.05%	....	9.13%
C., R. I. & P.	....	5%	....	8.94%	....	8.83%

OPPORTUNITIES FOR REFUNDING IN THE NEAR FUTURE.

In connection with the above comparison, it should be borne in mind that, by the retirement and refunding of bonds falling due on or before July 1, 1903, Chicago, Burlington & Quincy can reduce its present interest charges by about $967,000, which is equal to nearly one per cent. on its stock. On the other hand, dividends upon its recently authorized issue of about $10,000,000 of new stock may absorb a part of the income thus gained by refunding, unless the new properties and railroads constructed or acquired by the use of the proceeds of this new stock should produce considerable net income.

It is estimated that the further refunding of Chicago & Northwestern bonds maturing prior to December 31, 1902, will reduce its fixed charges by about $400,000 per year, as compared with those of the year ended May 31, 1900, which is equal to about two-thirds of one per cent. on both classes of its stock.

Such bonds of the Chicago, Milwaukee & St. Paul as fall due within the next seven years are chiefly 7 per cent. bonds convertible into 7 per cent. preferred stock at par. These conversions therefore will not have any particular effect upon its rate of income applicable to dividends.

None of the outstanding bonds of the Chicago, Rock Island & Pacific fall due before 1917. The refunding of that Company's debt, by the issue of its General Mortgage Four Per Cent. Bonds, was accomplished in 1898–9, except as to $12,500,000 six per cent. bonds which mature in 1917.

STATISTICS OF OPERATION.

The volume of traffic, average freight and passenger rates, and comparative efficiency in operation in the last fiscal year, are shown by the four statements following:

GROSS EARNINGS AND VOLUME OF TRAFFIC PER MILE OF ROAD OPERATED.

	Gross Earnings per Mile of Road.	Tons One Mile per Mile of Road.	Average Rate per Ton per Mile	Freight Earnings per Mile of Road.	Passengers One Mile per Mile of Road.	Average Rate per Passenger per Mile.	Passenger Earnings per Mile of Road.	Passenger, Mail and Express Earnings per Mile of Road.
			Cents.			*Cents.*		
C. & N. W.	$7,153	618,500	0.861	$5,324	73,300	2.019	$1,479	$1,797
C., M. & St. P...	6,599	529,000	0.930	4,918	51,700	2.346	1,213	1,680
C., R. I. & P...	6,245	442,600	0.989	4,378	71,600	2.062	1,476	1,819
C., B. & Q........................	6,154	502,700*	0.851*	4,215	62,200*	2.200*	1,344	1,709

* These statistics for C., B. & Q. cover operation of its standard-gauge lines only.

APPROXIMATE AVERAGE TRAIN HAUL AND FREIGHT AND PASSENGER EARNINGS PER TRAIN MILE.

	Average Number of Tons of Freight Carried per Freight-Train Mile.	Average Rate per Ton per Mile.	Average Earnings per Freight-Train Mile.	Average Length of Freight Haul.	Average Number of Passengers per Train.	Passenger, Mail and Express Earnings per Passenger-Train Mile.
		Cents.		*Miles.*		
C. & N. W.	221	0.861	$1.91	153	39	$0.95
C., M. & St. P......	205	0.930	1.91	189	32	1.04
C., R. I. & P.......	177	0.989	1.75	213	41	1.04
C., B. & Q.*.......	198	0.851	1.68	....	37	1.04

*Standard-gauge lines only.

GROSS EARNINGS, OPERATING EXPENSES AND TAXES, AND NET EARNINGS PER MILE RUN BY REVENUE-EARNING TRAINS.

	Gross Earnings.	Operating Expenses and Taxes. Maintenance of Way and Equipment. As Reported.	As Revised for Comparison.	Conducting Transportation and General Expenses.	Taxes.	Total Expenses and Taxes. As Reported.	As Revised for Comparison.	Net Earnings. As Reported.	As Revised for Comparison.
C., M. & St. P.................	$1 65	$0 55	$0 43	$0 52	$0 05	$1 12	$1 00	$0 53	$0 65
C. & N. W.......................	1 53	0 36	0 42	0 56	0 05	0 97	1 03	0 56	0 50
C., B. & Q.*......	1 48	0 42	0 42	0 50	0 05	0 97	0 97	0 51	0 51
C., R. I. & P..................	1 47	0 40	0 41	0 51	0 06	0 97	0 98	0 50	0 49

* The figures for the C., B. & Q. are necessarily an approximation, owing to the fact that the Company does not report the train mileage or the movement of freight and passengers on 178.6 miles of narrow-gauge road.

RATIOS OF OPERATING EXPENSES AND TAXES TO GROSS EARNINGS.

	Maintenance of Way and Equipment. As Reported.	As Revised for Comparison.	Conducting Transportation and General Expenses.	Taxes.	Total Expenses and Taxes. As Reported.	As Revised for Comparison.
C., M. & St. P.........................	33.28%	25.75%	31.57%	3.00%	67.85%	60.32%
C., B. & Q..	28.63%	28.63%	34.09%	3.38%	66.10%	66.10%
C., R. I. & P.	27.50%	27.75%	34.68%	3.97%	66.15%	66.40%
C. & N. W..	23.66%	27.72%	36.81%	2.98%	63.45%	67.51%

The following statement compares the gross earnings per mile of railroad operated by each of these systems for the five fiscal years 1897 to 1901 inclusive.

GROSS EARNINGS PER MILE OF ROAD OPERATED.

	Chicago & Northwestern System.	Chicago, Milwaukee & St. Paul System.	Chicago, Burlington & Quincy System.	Chicago, Rock Island & Pacific System.
Fiscal year 1896–7	$5,375	$4,955	$4,828	$4,801
" " 1897–8	6,207	5,555	5,816	5,478
" " 1898–9	6,507	6,225	5,841	5,711
" " 1899–1900	7,153	6,599	6,154	6,245
" " 1900–01 (Partly estimated)	6,800	6,500	6,300	6,800

RESULTS FOR CURRENT FISCAL YEAR.

The several Companies report the following changes for the current fiscal year as compared with the same periods of the year previous:

	Increase or Decrease in Gross Earnings.	Increase or Decrease in Net Earnings.	Increase or Decrease in Charges.	Increase or Decrease in Net Income.
C. & N. W., 10 months to March 31st	Dec. $160,599	Not reported.	Not reported.	Not reported.
C., M. & St. P., 9 months to March 31st	Inc. 243,909	Inc. $581,188	Not reported.	Not reported.
C., B. & Q., 9 months to March 31st	Inc. 1,393,495	Dec. 275,986	Inc. $82,634	Dec. $358,620
C., R. I. & P., 12 months to March 31st	Inc. 2,714,030	Inc. 531,388	Dec. 103,568	Inc. 634,956

It is evident that the losses of the Chicago & Northwestern and Chicago, Milwaukee & St. Paul, by reason of last autumn's short wheat crop, have just about offset their gains in gross earnings from the increased activity this year in business generally and from the operation of new mileage added during the year—so that the *gross earnings* of those two Companies for the current fiscal year probably will not differ materially from those of the year previous.

The considerable increases in the gross earnings of both the Chicago, Burlington & Quincy and the Chicago, Rock Island & Pacific have been accompanied by large increases in operating expenses, the larger part of which, it may reasonably be inferred, is represented by betterments to roadway or equipment, as the mileage of road operated has not been materially increased.

In order to compare what the properties will fairly *earn* this year upon their stocks, it would seem reasonably safe to assume that the results for the Chicago, Milwaukee & St. Paul and the Chicago & Northwestern will be substantially the same as those of last year. And, bearing in mind that the *maintenance expenses* of the Chicago, Burlington & Quincy and the Chicago, Rock Island & Pacific were ample last year, it should be safe to compute the increased cost of transportation and of equipment repairs for those two roads at 40 per cent. of their increases in gross earnings, and thus to estimate that 60 per cent. of the increased gross might fairly have been shown as net earnings.

Upon that basis, and assuming that the net income of the Chicago & Northwestern, Chicago, Milwaukee & St. Paul and Chicago, Burlington & Quincy systems for the remaining months of the current fiscal year will equal those of the same months of last year, the results this year may be estimated as follows:

ESTIMATES FOR CURRENT FISCAL YEAR.

	Estimated Income Earned for Stock.	Per Cent. Earned on Preferred.	Per Cent. Earned on Common.
C. & N. W.	$8,579,000	14.0%	14.0%
C., M. & St. P.	10,130,000	11.6%	11.6%
C., B. & Q.	9,738,000	....	8.9%
C., R. I. & P.	6,138,000	....	12.3%

In the above estimate the expenses for maintenance of way and of equipment are placed upon an equality with those of the C., B. & Q. (as in the previous comparison), and sinking fund charges are eliminated. The percentages are computed upon the amount of the respective stocks *now* outstanding, including, for the C., B. & Q., the ten per cent. increase in stock recently issued.

In connection with the above estimate for the Chicago, Burlington & Quincy, it should again be noted that the saving which can be effected by refunding bonds which mature on or before July 1, 1903, is equal to about nine-tenths of one per cent. on its stock. If such refunding had already been effected, the above estimate would have shown nearly 10 per cent. earned on the stock this year. Refunding by the Chicago & Northwestern during the next two years will save an amount equal to about six-tenths of one per cent. annually on both classes of its stock.

A noteworthy feature is the large gain this year in the earnings of the Rock Island System. That Company will apparently *report* something like 10 per cent. earned for its stock in the year ending March 31, 1901; but, as shown above, it has probably fairly *earned* more than 12 per cent. after making ample allowances for maintenance.

May 8, 1901.

JOSIAH F. HILL,
Statistician for Lee, Higginson & Co.,
44 State Street, Boston.