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Volume Title: The Transportation Industries, 1889-1946: A Study of

Output, Employment, and Productivity

Volume Author/Editor: Harold Barger

Volume Publisher: NBER

Volume ISBN: 0-87014-050-7

Volume URL: http://www.nber.org/books/barg51-1

Publication Date: 1951

Chapter Title: Appendix B Steam Railroads: Basic Series

Chapter Author: Harold Barger

Chapter URL: http://www.nber.org/chapters/c3196

Chapter pages in book: (p. 183 - 190)

Appendix B

Steam Railroads: Basic Series

Data for steam railroads shown in Tables 3 and 4, and not reproduced in this Appendix, will be found in Interstate Commerce Commission, Statistics of Railways in the United States, 1939.

1890-1946
A RAIL'ROADS: TRAFFIC, REVENUE, AND EMPLOYMENT, 1890-1946
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NT, 1890-1946	1	Numb	S oui I		roads	749	784	821	874	780	785	827	823	875	929	1,018	1,071	1,189	1,312	1,296	1,382	1,521	1,672	1,436	1,503	1,699	1,670	1,716	1,832	1,710	1,548	
STEAM RAILROADS: TRAFFIC, REVENUE, AND EMPLOYMENT, 1890-1946		ALL FREIGHT"	Revenue	ton-mile	(cents)	.941	.895	868.	.878	.860	.839	908	.798	.753	.724	.729	.750	.757	.763	.780	.766	.748	.759	.754	.763	.753	.757	.744	.729	.737	.735	
VENUE, AN		ALL FR	Ę	-miles	(bil.)	76.2	82.1	88.8	94.2	81.1	8.98	97.3	9.96	116	126	144	149	159	175	176	189	219	240	219	219	255	254	264	302	289	277	
TRAFFIC, RE	ENGERS	Revenue	per	passenger -mile	(cents)	2.17	2.14	2.13	2.11	1.99	2.04	2.02	2.02	1.97	1.98	2.00	2.01	1.99	2.01	2.01	1.96	2.00	2.01	1.94	1.93	1.94	1.97	1.99	2.01	1.99	1 99	
AILROADS:	ALL PASSENGERS ^a		ć	rassenger -miles ^b	(bil.)	12.0	13.1	13.5	14.3	14.4	12.4	13.2	12.4	13.5	14.7	16.2	17.5	19.8	21.0	22.1	24.1	25.5	28.0	29.3	29.5	32.5	33.3	33.2	34.7	35.4	<u> ዓ</u> ዓ አ	
STEAM RA			Year	ending June	30	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1015	

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	5.19 5.44	5.70	5.03	5.45	4.08	4.19	4.80	4.41	4.40	4.51	4.30	4.14	4.17	3.60	2.89	2.26	$\frac{2.12}{2}$	2.27	2.27	2.53	2.65	2.19	2.34	2.46	2.82	3.22	3.58	3.72	3.68	3.35
	: :	:	:	ij	77.0	74.5	72.8	66.1 66.1	66.4	66.3	62.4	60.7	59.4	51.2	44.1	36.0	35.7	36.2	38.0	40.8	42.7	40.4	41.9	44.6	48.9	51.1	62.6	73.7	79.6	82.7
	18.3 20.2	17.7	21.5	22.9	21.1	19.1	23.6	25.1	26.6	26.2	77.4	26.8	29.5	26.2	22.5	17.1	15.9	19.1	20.4	21.7	23.4	20.8	21.3	20.9	22.7	56.6	33.2	39.7	41.6	39.3
		:	:	į	59.1	49.5	26.6	57.6	59.8	61.8	60.3	57.6	58.5	54.6	47.7	40.0	37.7	39.2	38.9	42.1	45.5	39.8	45.0	46.0	50.8	56.9	60.1	64.5	63.5	63.4
	1,701	1,892	1,960	2,076	1,705	1,670	1,902	1,796	1,786	1,822	1,776	1,692	1,694	1,517	1,283	1,052	991	1,027	1,014	1,086	1,137	928	1,007	1.046	1,159	1,291	1,375	1,434	1,439	1,378
	.719	.862	.987	1.069	1.294	1.194	1.132	1.132	1.114	1.096	1.095	1.094	1.088	1.074	1.062	1,056	1.009	686	866.	.984	.945	.994	.983	955	944	.940	940	.957	.967	986
	366 398	409	367	414	310	342	416	392	417	447	432	436	450	386	311	235	251	270	284	341	363	292	335	375	478	641	730	741	684	595
,	2.05 2.10	2.42	2.55	2.75	3.09	3.04	3.03	2.99	2.94	2.94	2.90	2.85	2.81	2.72	2.52	2.22	2.02	1.92	1.94	1.84	1.80	1.88	1.84	1.76	1.75	1.92	88	1.87	1.87	1.95
	35.2	43.2	46.8	47.4	37.7	35.8	38.3	36.4	36.2	35.7	33.8	31.7	31.2	56.9	21.9	17.0	16.4	18.1	18.5	22.5	24.7	21.7	22.7	93.8	29.4	53.7	87.9	95.7	91.8	64.8
alendar Year	٠			٠																										
Calend	1916	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1949	1943	1944	1945	1946

Notes to Table B-1

* Interstate Commerce Commission, Statistics of Railways in the United States (annual). Class I, II, and III roads; 1890-1907, includes switching and terminal companies; since 1908, excludes switching and terminal companies.

^b For 1914 and later years coverage is substantially complete. For 1913 coverage was practically complete but cannot be estimated accurately. For 1912 and earlier years coverage of original data varied between 97 and 100 percent (judged by passenger revenue), and data shown here have been adjusted upward on this account, i.e., divided by the percentage of coverage.

For 1911 and later years coverage is substantially complete. For 1891 to 1910 coverage of original data varied between 97 and 100 percent (judged by freight revenue), and data shown here have been adjusted upward on this account; i.e., we divided the figures as originally reported by the percentage of coverage.

For 1890 coverage could not be determined but was assumed to be 100 percent. For 1906 and earlier years published totals include the small amount of ton-miles reported by switching and terminal companies. Such companies did not report traffic after 1907; accordingly figures shown for 1890-1906 have been adjusted downward, on the basis of the relationship in 1907, to exclude switching and terminal companies.

^d Data from Statistics of Railways. Class I Companies: For line haul companies

1914 and prior year figures represent a single count on June 30 (end of fiscal year to which other data in the table apply). The 1915 figure is an average of six counts distributed throughout the year; however, the estimate as originally published was considered incomplete and was later written up (Statistics of Railways, 1919, p. 20). For 1916-21 the figures are based on four counts during the year. Since 1922 twelve monthly counts have been averaged in order to arrive at employment for the year. Apparently figures for Class I switching and terminal companies were compiled in the same manner as those for line haul companies. Class II and III Companies: Figures represent single counts. In 1915 no data for class III line haul companies were collected, and accordingly we made an estimate on the basis of adjoining years. Pullman Company: In 1935 and prior years, figures represent a single year-end count; in 1936 to 1944, an average of twelve monthly counts; in 1945, a year-end count; and in 1946, mean of counts at the beginning and end of the year. Express Companies: In 1933 and prior years, figures represent a single year-end count: in 1934 and later years, an average of twelve monthly counts. * Class I companies only. Data from Statistics of Railways and ICC, 'Wage

* Class I companies only. Data from Statistics of Railways and ICC, 'Wage Statistics of Class I Steam Railways' (monthly). Figures for 1916-20 are described as 'hours actually on duty', and exclude 'constructive allowances' for time not worked, e.g., time allowed for vacations, holidays, leaves of absence, etc. with pay; they were also intended to exclude other time paid for but not worked by transportation (train and engine) employees. The existence of additional time paid for but not worked (currently referred to in the Statistics of Railways as 'other straight time paid for') in the case of these employees results from the method of payment of train and engine crews whose runs exceed the mileage equivalent of the standard workday; or who perform runs in less than the scheduled time, and so cut their own tours of duty, without loss of pay. However, some of this additional time paid for but not worked may perhaps have crept into the hourly data for 1916-20; in any case no adjustment of the data on this account is possible. Figures for 1921-27 represent 'total hours'

have crept into the hourly data for 1910-20; in any case no adjustment of the data on this account is possible. Figures for 1921-27 represent 'total hours worked' which, for these years, have been definitely stated to exclude both constructive allowances and additional time paid for but not worked by train and engine crews. (Minor adjustments had to be made in 1921 and 1922 to exclude switching and terminal companies, since line haul companies are not separately distinguished in the tabulations for these years.) For 1928 and later years, the figures shown here represent 'straight time actually worked' plus 'overtime paid for'. This amount falls short of 'total time paid for': for train

Notes to Table B-1 concluded

and engine employees it excludes 'other straight time paid for' (e.g., the excess of the hourly equivalent of a standard day's run over the time actually taken to make the run, or the hourly equivalent of the excess of a minimum day's run over the run actually made) and 'constructive allowances' (hours paid for when "held away from home terminal, called and not used, runaround, deadheading, attending court, suspensions, investigations, and claim and safety meetings"); for other employees it excludes 'time paid for but not worked' (the hourly equivalent of pay for "holidays, absence on definite leave, vacations, attending court, suspensions, sickness, time allowed for meals, and . . . allowance to complete a minimum day when less than a minimum day is worked"). See ICC, Rules Governing the Classification of Steam Railway Employees (1921). To the extent that the allowances represent hours actually worked (as in deadheading, or attending court) the figures may understate time worked. (In 1928-32 minor adjustments had to be made to exclude switching and terminal companies in estimating the latter deduction.)

Roughly one railroad worker in ten is paid by the day: time paid for by the day was converted to an hourly basis by assuming a ten-hour day in 1916-18 and an eight-hour day thereafter. The series shown in this column probably offers the nearest approach to continuously comparable data on hours actually worked.

^t For 1935 and prior years, days worked are to be found in ICC Statement No. 3631, 'Sleeping Car Statistics, 1890-1935' (mimeo., Aug. 1936); days were converted to hours on the basis of a ten-hour day in 1918 and prior years and an eight-hour day thereafter. Figures for 1936 and later years were extrapolated on the basis of the number of workers.

Table B-2
STEAM RAILROADS: PASSENGER TRAFFIC AND REVENUE
BY KIND OF PASSENGER, 1911-1921

	COMMUTATION	N AND COACH	PARLOR AND S	LEEPING CAR
Year Ending June 30	Passenger- miles (bil.)	Revenue per passenger- mile (cents)	Passenger- miles (bil.)	Revenue per passenger- mile ^b (cents)
1911	24.64-	1.87	7.73	2.75
1912	24.38	1.88	7.93	2.76
1913	25.74	1.91	8.14	2.80
1914	26.27	1.88	8.30	2.77
1915	23.65	1.88	8.14	2.76
Calendar Year				
1916	25.26	1.94	9.32	2.82
1917	28.72	1.98	10.76	2.88
1918	32.34	2.30	10.34	3.27
1919	33.09	2.40	13.27	3.39
1920	33.03	2.55	13.82	3.79
1921	26.44	2.83	10.88	4.33

^{*} Statistics of Railways; see also ICC Statement 3631. This breakdown is not available prior to 1911. Data relate to class I railroads only; for this reason passenger-miles shown here do not add exactly to the totals of Table B-1.

Bailroad fare plus Pullman charge.

Table B-3

	FREE RIDERS ^c	Revenue per passenger- mile ^d (cents)	0.61 0.61 0.62 0.62 0.62 0.62 0.62	0.62 0.62 0.63 0.64 0.64 0.63 0.62
'22-1946*	FREE F	Passenger- miles (bil.)	0.50 0.59 0.74 1.05 1.19 1.30 1.30	1.21 0.96 0.65 0.58 0.71 0.86 0.92 0.96
SSENGER, 19	R AND	Revenue passenger- mile (cents)	4.23 4.12 4.13 4.13 4.11 4.06	2.347 2.347 2.398 2.398 2.395 2.300
STEAM RAILROADS: PASSENGER TRAFFIC AND REVENUE BY KIND OF PASSENGER, 1922-1946*	PARLOR AND SLEEPING CAR	Passenger- miles (bil.)	11.26 12.39 12.34 12.97 13.22 12.80 12.65	11.30 8.93 6.10 5.57 6.42 6.42 7.49 8.13 7.35 7.35
	(OTHER AUTATION)	Revenue per passenger- mile (cents)	3.23 3.23 3.21 3.21 3.15 3.15	3.08 2.89 2.24 2.02 2.03 1.89 1.71 1.86
	COAGH (OTHER THAN COMMUTATION	Passenger- miles (bil.)	18.08 19.18 17.35 16.39 15.66 14.20 11.42	8.85 6.94 5.88 6.47 7.94 10.74 11.12
ASSENGER T	FATION	Revenue per passenger- mile (cents)	1100	1.09 1.06 1.08 1.09 1.09 1.10 1.10
AILROADS: I	COMMUTATION	Passenger- miles (bil.)	6.12 6.39 6.40 6.59 6.60 6.65 6.65	6.67 6.02 6.02 4.31 4.13 4.12 4.12 4.12 4.03
STEAM R.			1922 1923 1924 1925 1926 1927 1928	1930 1931 1932 1933 1934 1936 1936 1938

0.64	09.0	0.54	0.55	0.56	0.56	0.61
0.93	0.00	1.22	1.22	1.32	0.36	0.83
2.94	2.88	2.94	2.94	2.99	2.95	3.06
. 7.29	9.17	17.85	24.67	26.94	26.91	19.84
1.67	1.64	1.77	1.74	1.70	1.71	1.82
12.48	16.11	30.91	57.91	63.29	59.42	39.00
1.01	1.01	1.06	1.07	1.07	1.08	1.08
4.00	4.09	4.76	5.26	5.34	5.42	5.86
1940	1941	1942	1943	1944	1945	1946

Pullman Company.