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The Honorable Cynthia T. Brown
Chief, Section of Administration
Office of Proceedings
Surface Transportation Board
395 E Street, SW
Washington, DC 20423-0001

This submission is the AAR forecast of the first quarter 2021 All-Inclusive Index and Rail Cost Adjustment Factor, filed in Ex Parte No. 290 (Sub-No. 5) (2021-1) *Quarterly Rail Cost Adjustment Factor*. The versions of RCAF-related indices covered in this filing are: the All-Inclusive Index (initiated in the second quarter of 1985), the Unadjusted RCAF (produced since October 1982), the Adjusted RCAF (first published in the second quarter of 1989), and the RCAF-5 (created by the STB in its Ex Parte No. 290 (Sub-No. 7) decision served October 3, 1996). The table below summarizes the first quarter 2021 results and compares to the previous quarter. Both quarters are shown on a 4Q\2017=100 base.

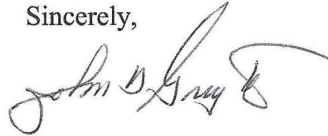
	<u>2020Q4</u>	<u>2021Q1</u>	<u>% Change</u>
All-Inclusive Index	101.1	102.7	1.6
Preliminary RCAF	1.011	1.027	1.6
Forecast Error Adjustment	-0.070	0.013	
RCAF (Unadjusted)	0.941	1.040	10.5
Productivity Adjustment Factor	2.3883	2.3943	
RCAF (Adjusted)	0.394	0.434	10.2
PAF-5	2.5280	2.5343	
RCAF-5	0.372	0.410	10.2

December 4, 2020

In its October 3, 1996 decision in Ex Parte No. 290 (Sub-No. 7), *Productivity Adjustment - Implementation*, the STB noted its intent to publish, in addition to the RCAF (Unadjusted) and RCAF (Adjusted), an RCAF-5 (i.e., a calculation of the productivity adjusted RCAF values as if the agency had always used a 5-year rolling average to calculate the productivity adjustment). In response to a request by STB staff, the AAR is including a calculation of the RCAF-5 in its quarterly RCAF filing. The AAR and its members, however, do not believe the publication of a third RCAF index is required or permitted by the applicable statute (49 U.S.C. § 10708) and do not endorse its publication.

Our quarterly non-proprietary work papers underlying this submission are e-filed herewith, in accordance with the ICC's order in Ex Parte No. 290 (Sub-No. 2), *Railroad Cost Recovery Procedures*, served February 8, 1990. We have notified Pedro Ramirez, in the STB office handling this proceeding, of our plan to e-file the submission and non-proprietary work papers. A second copy of the submission and non-proprietary work papers, plus selected highly confidential work papers, will be provided to Mr. Ramirez's Data Collection and Auditing Team. All work papers are available for STB inspection. Questions should be directed to me or Tiffany Placker (202 639-2381) of this office.

Sincerely,

A handwritten signature in dark ink, appearing to read "John T. Gray", with a stylized flourish at the end.

John T. Gray

Attachments

**First Quarter 2021
All-Inclusive Index**

Ex Parte No. 290 (Sub-No. 5) (2021-1)

**Quarterly Rail Cost Adjustment Factor
Surface Transportation Board**

**Policy and Economics Department
Association of American Railroads**

December 4, 2020

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Introduction

On January 2, 1985, the Interstate Commerce Commission (ICC) adopted the All-Inclusive Index as the basis for the Rail Cost Adjustment Factor (RCAF). The quarterly projection of railroad costs, as documented herein, employs the All-Inclusive Index as required by the regulations. Also presented in this submission is the RCAF, both Adjusted and Unadjusted, as required by the ICC in its decision in Ex Parte No. 290 (Sub-No. 4), Rail Cost Recovery Procedures - Productivity Adjustment, served March 24, 1989. In addition, the AAR has included the RCAF-5, which was instituted by a Surface Transportation Board decision served October 3, 1996 in Ex Parte No. 290 (Sub-No. 7), *Productivity Adjustment - Implementation*. The AAR and its members do not believe the additional productivity-adjusted index is required or permitted by the applicable statute, and do not endorse its publication.

This quarter's projection of railroad costs is for the first quarter 2021. Each year's first quarter calculation utilizes new health and welfare rates, which are listed in Appendix A on page 5. New payroll tax rates and maximum taxable earnings (Tier I, Tier II, and Unemployment Insurance) also become effective January 1, and are listed in Appendix A on page 4.

Index Weights

In the Ex Parte No. 290 (Sub-No. 2) final rules, issued in April 1981, the Interstate Commerce Commission mandated that the weights of each major cost component be updated annually. These "external" weights are calculated using expense data from Schedules 410 and 210 of the R-1 annual report filed with the Surface Transportation Board by the Class I railroads. The weights are typically updated with the fourth quarter projection.

The 2019 (current) and 2018 (previous) weights are shown below. Weights calculated from 2018 data were used for the fourth quarter of 2019 through the third quarter of 2020. Beginning with the fourth quarter of 2020, weights calculated using 2019 data are used. The component with the biggest change in weight was Fuel, which decreased by 1.7 percentage points. Labor, Materials & Supplies, and Equipment Rents also decreased. The weight for Depreciation, Interest, and Other all increased by 0.9, 0.4, and 1.1 percentage points, respectively.

Weights for RCAF's All-Inclusive Index		
	2019	2018
Labor	32.6 %	33.0 %
Fuel	14.2	15.9
Materials & Supplies	4.9	5.1
Equipment Rents	5.2	5.3
Depreciation	15.9	15.0
Interest	2.5	2.1
Other	24.7	23.6
Total	100.0	100.0

Reweightings of the index is accomplished by calculating both the current quarter (normally the fourth) and prior (normally the third) quarter indexes with the new weights. The relative change between the two quarters is then multiplied times the prior quarter (usually the third) *linked* index. Use of this method ensures that the weight change, by itself, does not cause a change in the level of the All-Inclusive Index.

Internal weights in the labor and equipment rents components are updated at the same time as the external weights. When these weights are changed, they are also linked using the procedure described above in order to eliminate the effect of the change in weighting.

All-Inclusive Index

First Quarter 2021

The components and values of the current and previous All-Inclusive Indexes are shown below. Details of the construction of each component of the index are contained in the Appendices.

	2019 Weights	Forecast		Percent Change
		Previous 2020Q4	Current 2021Q1	
1. Labor	32.6%	437.1	448.9	2.7 %
2. Fuel	14.2%	171.2	164.7	-3.8
3. M&S	4.9%	258.8	264.9	2.4
4. Equipment Rents	5.2%	234.1	236.4	1.0
5. Depreciation	15.9%	226.1	226.2	0.0
6. Interest	2.5%	55.7	55.7	0.0
7. Other	24.7%	232.1	237.0	2.1
8. Weighted Average				
a. 1980 = 100		286.3	290.9	
b. 1980 = 100 (linked)		267.4	271.7 ¹	
c. 4Q17 = 100		101.1	102.7 ²	1.6

¹ Index80 = (Current Index / Previous Index) * the Previous Quarter Linked Index

$$= (290.9 / 286.3) \times 267.4$$

$$= 271.7$$

² To calculate the 4Q17 = 100 index:

$$\text{Index4Q17} = (\text{Current Linked Index} / \text{4Q17 Basing Factor}) \times 100$$

$$= 271.7 \text{ divided by } 264.5 \text{ times } 100$$

$$= 102.7$$

Indexes based on other periods:

4Q12 based index = $271.7 / 297.6 \times 100 = 91.3$

4Q07 based index = $271.7 / 245.9 \times 100 = 110.5$

4Q02 based index = $271.7 / 192.1 \times 100 = 141.4$

4Q97 based index = $271.7 / 173.2 \times 100 = 156.9$

4Q92 based index = $271.7 / 156.9 \times 100 = 173.2$

Forecast vs. Actual All-Inclusive Index Third Quarter 2020

Because of data availability, the forecast error adjustment has a two-quarter lag from each filing. As shown below, the third quarter actual index of 101.0 is 1.3 index points above the forecast value of 99.7. Therefore, the forecast error adjustment for first quarter 2021 is 1.3 index points.

	2018 Weights	Third Quarter 2020		Amt Difference
		Forecast	Actual	
1. Labor	33.0%	442.8	442.8	
2. Fuel	15.9%	142.8	159.7	
3. M&S	5.1%	260.7	260.7	
4. Equipment Rents ¹	5.3%	235.0	239.5	
5. Depreciation	15.0%	226.0	226.1	
6. Interest	2.1%	57.2	57.2	
7. Other	23.6%	224.0	232.0	
8. Weighted Average				
a. 1980 = 100		282.5	287.4	
b. 1980 = 100 (linked)		263.7	267.2 ²	
c. 4Q17 = 100 ³		99.7	101.0	1.3

Forecast error —————→ **1.3 index points**

¹	2018 Weights	Third Quarter 2020	
		Forecast	Actual
Car-Hire	59.1%	222.6	223.5
Lease Rentals	40.9%	224.0	232.0
Weighted Average		223.2	227.0
Weighted Average (linked)		235.0	239.5

² Linked actual index = (actual index / previous actual index) x previous linked actual index.

$$267.2 = 287.4 / 280.7 \times 261.0$$

³ The 4Q17 based indexes are 1980 based indexes divided by the 4Q17 basing factor (264.5/100).
 Other basing factors are: 4Q12 = 297.6; 4Q07 = 245.9; 4Q02 = 192.1; 4Q97 = 173.2; and 4Q92 = 156.9.

Productivity

On February 6, 2020, the Surface Transportation Board served a decision which proposed to adopt 1.0 percent as the geometric average productivity change for the five most recent years available. Their five year rolling geometric average calculation added the year 2018 and removed the year 2013. The components of this average annual value are shown on the following table in ratio format – therefore, 1.010 is the same as an increase of 1.0 percent. Productivity changes are calculated by multiplying each of the five productivity changes together and taking the result to the one-fifth power. The productivity adjustment factors (PAF) for each quarter are calculated by increasing the previous quarter's PAF by quarterly versions of the annual rate, which are the fourth root of the geometric average annual growth rate. The difference between the PAF and the PAF-5 is the timing of the five-year productivity trend.

Comparison of Output, Input, & Productivity			
2014 - 2018			
Year	Output Index (1)	Input Index (2)	Productivity Changes (3)
2014	1.055	1.036	1.018
2015	0.913	0.972	0.939
2016	0.955	0.941	1.015
2017	1.045	0.992	1.053
2018	1.032	1.004	1.028
Average			1.010
Previous Average (2013-2017)			1.005

Calculation of PAF and PAF-5			
For 2014-2018, use fourth root of avg. productivity change = 1.0025			
For 2013-2017, use fourth root of avg. productivity change = 1.0012			
Quarter	Year	PAF	PAF-5
Q1	2020	2.3705	2.5190
Q2	2020	2.3764	2.5220
Q3	2020	2.3823	2.5250
Q4	2020	2.3883	2.5280
Q1	2021	2.3943	2.5343

Rail Cost Adjustment Factor

First Quarter 2021

Four RCAF values are presented in this filing. Two are not modified for productivity (Preliminary RCAF and RCAF Unadjusted), and two incorporate a productivity calculation (RCAF Adjusted and RCAF-5). The All-Inclusive Index and all four RCAF values, plus the percent change for each, are shown below. Note that beginning with the 2018Q1 index, the All-Inclusive Index was rebased to a 2017Q4=100 basis as required in the applicable statute.

	Previous 2020Q4	Current 2021Q1	Percent Change
All-Inclusive Index ¹	101.1	102.7	1.6
Preliminary RCAF ²	1.011	1.027	1.6
Forecast Error Adjustment ³	-0.070	0.013	
RCAF (Unadjusted) ⁴	0.941	1.040	10.5
Productivity Adjustment Factor ⁵	2.3883	2.3943	
RCAF (Adjusted) ⁶	0.394	0.434	10.2
PAF-5 ⁷	2.5280	2.5343	
RCAF-5 ⁸	0.372	0.410	10.2

¹ See All-Inclusive Index on page 3.

² All-Inclusive Index divided by the All-Inclusive Index in the base period (100.0).

³ The current figure is from Forecast vs. Actual All-Inclusive Index in this filing (page 4). The previous quarter figure is shown in a similar section of the previous quarter's filing.

⁴ Preliminary RCAF plus the forecast error adjustment.

⁵ See Productivity on page 5.

⁶ RCAF (Unadjusted) divided by the Productivity Adjustment Factor (PAF).

⁷ See Productivity on page 5.

⁸ RCAF (Unadjusted) divided by the PAF-5.

Appendixes

Labor

First Quarter 2021

The first quarter 2021 Labor Index is 2.7 percent higher than the previous quarter. Increases for the supplements portion of the index contributed the most towards this increase.

Wage Rate Index

The Wage Rate Index portion of the Labor Index increased by 0.1%.

Wage Increases: There are no national agreement wage increases currently scheduled for the first quarter. There were several wage increases for independent groups, and one new independent agreement with back pay was added.

Lump Sums: The first quarter lump sum rate fell 0.1 cents. One amount was fully amortized and removed, but it was replaced by one new similar amount.

Back Pay: The back pay rate increased 1.7 cents due to a new independent agreement being added to the index. The agreement contains several years of retroactive wage increases.

Other: In wages, "Other" contains the amortization of incentive compensation payments (similar to lump sums) that one railroad makes each year to its dispatchers, yardmasters, and locomotive engineers. The first quarter rate is unchanged from the prior quarter.

Labor

First Quarter 2021

Supplements Index

The Supplements Index increased by 6.6 percent. Health and Welfare premiums, payroll tax rates, maximum taxable earnings, and the rate for unemployment insurance, are all typically adjusted once per year, effective on January 1. All of the components of the supplements index increased in the first quarter.

Health & Welfare: The Health & Welfare rate increased 6.1 percent. Employer premiums (the amount the employer contributes for their employees' insurance) are higher in 2021 for many categories. See pages 4 and 5 of this index for details.

Railroad Retirement: The Railroad Retirement rate increased by 1.2 percent. Taxable wages increased slightly, and the maximum taxable earnings for Railroad Retirement's Tier I and Tier II both increased for 2021. Tax rates for employers did not change. Page 4 of this appendix lists tax rates and maximum taxable earnings for 2019 through 2021.

Unemployment Insurance: The Unemployment Insurance rate increased 492.7 percent, or 47.3 cents, because of a new unemployment insurance tax rate effective January 1. The weighted average Class I railroad rate for 2021 is 5.69%, compared to 0.99% for 2020. Basic tax rates can range from a minimum of 0.65 percent to a maximum of 12 percent. There was no surcharge applied to the minimum rate in 2020, but there is a surcharge of 2.5 percent applied to the rate for 2021. Page 4 of this appendix lists tax rates and maximum taxable earnings for 2019 through 2021.

Other: The "Other" category is a reflection of all other fringe benefits, and currently contains known employer contributions to employee 401(k) accounts and employer contributions to employee stock plans that are recorded as fringe benefits. The first quarter rate is 48.2 percent (6.6 cents) higher than last quarter.

Labor Index Calculation

As shown in Table A-1 on the next page, the 0.1 percent increase in the Wage Rate Index and the 6.6 percent increase in the Supplements Index combined to cause the Labor Index to be 2.7 percent higher than the previous quarter. The linked first quarter 2021 Labor index is 448.9, which is 1.2 percent higher than one year ago.

Labor

First Quarter 2021

Table A-1 Labor Index

	2020Q4	2021Q1	Change	
			Percent	Amount
<u>Base Wage</u> – Straight Time & Pay For Time Not Worked	\$44.468	\$44.476	0.0%	\$0.008
Adjustments:				
Lump Sum	0.350	0.349	-0.3%	-\$0.001
Back Pay	0.000	0.017	#DIV/0!	\$0.017
Other	0.172	0.172	0.0%	\$0.000
Total Wages	<u>44.990</u>	<u>45.014</u>	0.1%	\$0.024
Health & Welfare Benefits	8.030	8.522	6.1%	\$0.492
RR Retirement & Medicare	8.945	9.054	1.2%	\$0.109
Unemployment Insurance	0.096	0.569	492.7%	\$0.473
Other	0.137	0.203	48.2%	\$0.066
Total Supplements	<u>\$17.208</u>	<u>\$18.348</u>	6.6%	\$1.140
Total Labor (as info only)	\$62.198	\$63.362		
Wage Index¹	385.0	385.2	0.1%	
Supplements Index²	635.9	678.0	6.6%	
Total labor Index, 2019 Weights ³	457.5	469.8		
Labor Index (linked)⁴	437.1	448.9	2.7%	

¹ 1980 wage rate \$11.685

² 1980 supplements rate \$2.706

³ 2019 weights: wages, supplements 71.1% 28.9%

⁴ 2021Q1 linked Index = 2020Q4 linked x (2021Q1 / 2020Q4)
 = 437.1 x 469.8 / 457.5

Labor

First Quarter 2021

Supplement Comparisons

Health and Welfare Rates

Plan	Railroad Payment Per Employee Per Month				
	2019	2020	2021	Change	
				'19-'20	'20-'21
Group Health & Welfare	\$1,607.55	\$1,606.79	\$1,697.55	0.0%	5.6%
Early Retirement Major Medical	129.38	114.37	116.94	-11.6%	2.2%
Group Dental	63.67	63.67	63.67	0.0%	0.0%
Group Vision	8.44	8.44	8.51	0.0%	0.8%
Supplemental Sickness					
Maintenance of Way	44.82	39.94	39.94	-10.9%	0.0%
Shop Crafts	67.87	61.93	87.74	-8.8%	41.7%
Signalmen	41.32	38.31	45.05	-7.3%	17.6%
Yardmasters	45.75	54.00	60.48	18.0%	12.0%

Railroad Retirement and Medicare

	Earnings Base			Employer Rate		
	2019	2020	2021	2019	2020	2021
Tier I	\$132,900	\$137,700	\$142,800	6.20%	6.20%	6.20%
Tier II	98,700	102,300	106,200	13.10%	13.10%	13.10%
Medicare	no limit	no limit	no limit	1.45%	1.45%	1.45%

Unemployment Insurance

Monthly Taxable Earnings Base			Weighted Avg. Class I Rate		
2019	2020	2021	2019	2020	2021
\$1,605	\$1,655	\$1,710	3.38%	0.99%	5.69%

Labor

First Quarter 2021

NATIONAL RAILWAY LABOR CONFERENCE

EMPLOYEE BENEFITS DEPARTMENT

251 – 18th Street, South, Suite 750, Arlington, VA 22202 — PHONE: (571) 336-7600

David B. Marcus
Director Employee Benefits
(571) 336-7596
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Eureka Norment
National Health Plan Manager
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November 17, 2020

Ms. Tiffany Placker (tplacker@aar.org)
Economist
Association of American Railroads
425 Third Street, SW, Suite 1000
Washington, D.C. 20024

Dear Ms. Placker:

The revised employer Payment Rates, which are effective January 1, 2021 are as follows:

Railroad Employees National Health & Welfare Plan & National Railway Carriers/United Transportation Union H&W Plan Non-Hospital Road	\$1,697.55
Railroad Employees National Early Retirement Major Medical Benefit Plan Non-Hospital Road	\$ 116.94
Aetna - National Dental Plan	\$ 63.67
Aetna - Supplemental Sickness Plans	
ShopCrafts	\$ 87.74
Signalmen	\$ 45.05
Maintenance of Way	\$ 39.94
Trustmark - Supplemental Sickness Plans Yardmasters	\$ 60.48
EyeMed - National Vision Plan	\$ 8.51

If you have any questions or need clarification, please contact me.

Very truly yours,


Eureka Norment

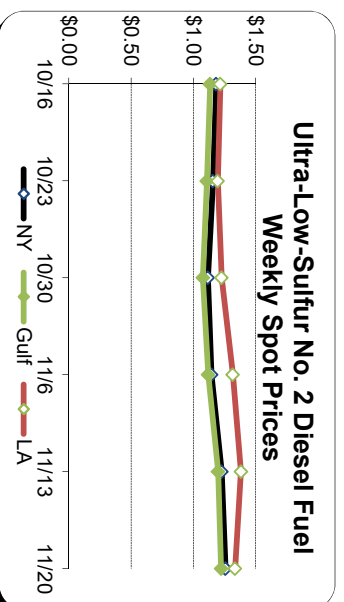
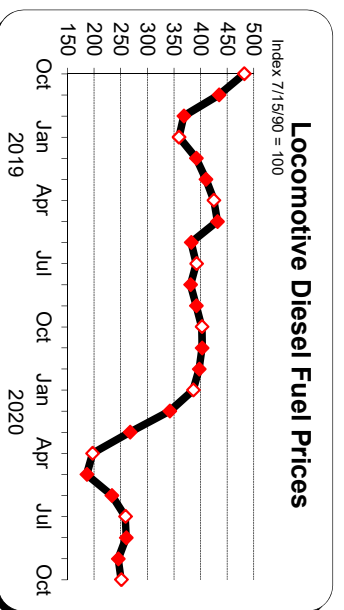
cc: Deena Beshir, AAR (dbeshir@aar.org)

Fuel

First Quarter 2021

The forecast for fuel is based on: (1) a survey of railroad fuel purchasing officers concerning current price and volume levels, (2) expectations of railroad purchasing officers based on their own forecast models and discussions with their major suppliers, and (3) a consensus of petroleum industry experts and general business publications. Fuel purchases are assumed to remain in inventory for 30 days before the fuel is consumed (and therefore expensed). Therefore, prices *paid* in the first month of each quarter are for fuel *expensed* in the second (or middle) month of the quarter, and the middle month expensed is used to represent each quarter.

The average locomotive diesel fuel price hit a low point in May but has, for the most part, risen in the months after. While average prices for locomotive diesel fuel are available only through October 2020, data through four weeks of November are available for related fuel types. According to the Energy Information Administration, the daily spot price as of November 23 for Ultra-Low-Sulfur Diesel Fuel* is an average of 14.6 percent higher than the average for October. The chart below (on left) shows the AAR's Monthly Locomotive Diesel Fuel Price Index through October 2020. The second chart (on right) shows recent spot prices for Ultra-Low-Sulfur No. 2 Diesel Fuel as reported by the Energy Information Administration.



Using information from the EIA, prices towards the end of November are slightly higher than prices that actually occurred in October. Railroads that responded to the AAR's forecast survey expect prices to continue to increase by January (Q1) compared to prices that actually occurred for October (Q4). The first quarter 2021 forecast is 3.8 percent lower than the previous quarter forecast, but 6.3% higher than the prior quarter actual.

Forecast Fuel Index (1980 = 100)	164.7
Change from previous quarter forecast	-3.8%
Change from previous quarter actual	6.3%

* Heating oil, Ultra-Low-Sulfur No. 2 Diesel Fuel, and locomotive diesel fuel are part of a group of closely related products, commonly labeled as distillates, that differ mostly by their sulfur content. Because of these similarities, these fuels are produced together and have similar pricing trends.

Materials & Supplies

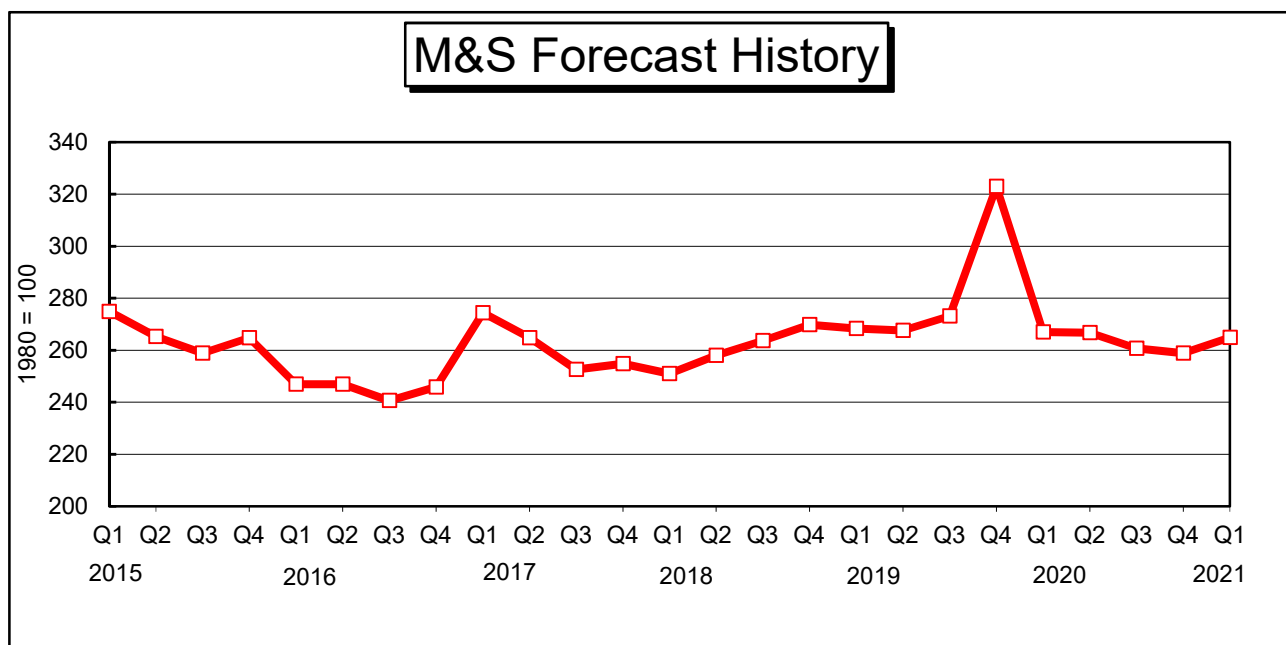
First Quarter 2021

The first quarter 2021 Materials & Supplies Index increased 2.4 percent from the previous quarter. Prices increased for Miscellaneous Products and Metal Products.

2021Q1 Materials & Supplies Index = 264.9

2020Q4 Materials & Supplies Index = 258.8

Difference	6.1 basis points
	or
	2.4 %



Equipment Rents

First Quarter 2021

The Equipment Rents Index consists of two components – car hire and lease rentals. The methodologies used to create these two components, and the final Equipment Rents Index, are explained below.

Car Hire

The car hire component is indexed using data from the Car Hire Accounting Rate Master (CHARM) file. Car hire rates for the forecast quarter are estimated based on data for active freight cars using the most recent data available. For the first quarter, December 1 of the previous year is typically used. For the second, third and fourth quarters; March 1, June 1, and September 1 are usually used, respectively. Using data retrieved from the latest CHARM file, an average rate per car is developed. Next, those average rates are grouped into four car type categories to create an overall summary of car hire rates. The summary rates are then compared from quarter to quarter, and weighted, to determine the Car Hire Index.

Lease Rentals

The lease rentals portion of the Equipment Rents Index uses the Producer Price Index for Industrial Commodities less Fuel and Related Products and Power (PPI-LF). The Commission adopted this surrogate in its decision served March 13, 1987. The AAR uses six years of historical data to derive its forecast for the PPI-LF. The forecast is used not only for lease rentals, but also for the "Other" component of the All-Inclusive Index. Appendix G discusses the forecast in more detail.

Equipment Rents Index Calculation

The table below shows the results of the Equipment Rents Index calculation. The first quarter Car Hire portion of the Index increased 0.3 percent because of higher rates for privately owned cars and auto racks. A 2.1 percent increase for the projected PPI-LF (See Appendix G) used as a proxy for Lease Rentals, combined with the 0.3 percent increase for Car Hire, caused the Equipment Rents Index to rise 1.0 percent.

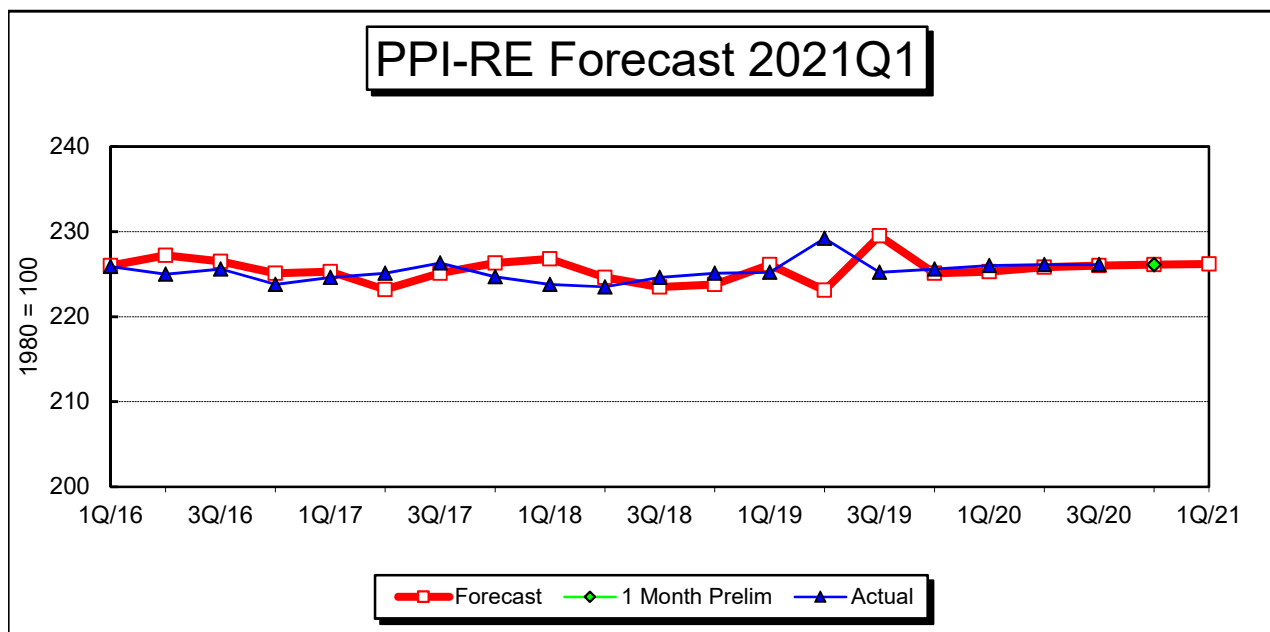
	2019 Weight	2020Q4	2021Q1	Percent Change
Car Hire	61.4%	215.9	216.5	0.3 %
Lease Rentals	38.6%	232.1	237.0	2.1
Weighted Average		222.2	224.4	1.0
Weighted Average (Linked)		234.1	236.4	1.0

Depreciation

First Quarter 2021

The Producer Price Index for Railroad Equipment (PPI-RE) is used to index depreciation expense. The PPI-RE is forecast using an ARIMA (Auto-Regressive Integrated Moving Average) process where a statistical package picks the model that best fits the historical data set (see next page), and that model is then used for the forecast. The historical data set contains 6 years of monthly data (a sample size of 72), where the most recent available data point is the first month of the quarter prior to the forecast quarter. For a first quarter forecast, the most recent month of data available would be for October of the prior year. For a second quarter forecast, January would normally be the most recent period available. April and July would be the most recent months available for third and fourth quarter forecasts, respectively. The output from the forecast model is shown on page 2 of this appendix on a 1982=100 basis. The figure forecast by the model is 0.04% (rounds to 0.0%) higher than the previous quarter's forecast.

Forecast of Depreciation Index (1982=100)	204.5
Forecast of Depreciation Index (1980=100)	226.2
Change from previous quarter forecast	0.0% = 0.04%
Change from actual first month of previous quarter	0.0% = 0.04%
Change from same quarter of prior year (actual)	0.1%



Depreciation

First Quarter 2021

PPI RAILROAD EQUIPMENT

Expert Analysis

Using rule-based logic I have narrowed down the choice to exponential smoothing or Box-Jenkins. I will perform an out-of-sample test to select between these two approaches.

The cumulative MAD for Exponential smoothing was 0.39 and for Box-Jenkins was 1.14. The rolling out-of-sample test used a maximum horizon of 12 and generated 78 forecasts for each method.

Based on the lower MAD, I will use Exponential Smoothing.

Model Details

Expert selection

Exponential smoothing: No trend, Additive seasonality
NA(0.673, 0.298)

Component	Smoothing Wgt		Final Value
Level	0.6728		204.3
Seasonal	0.2983		
Seasonal Indexes			
Jan - Mar	-0.06251	0.2702	0.277
Apr - Jun	-0.1902	-0.2178	0.004847
Jul - Sep	0.08234	0.417	-0.09744
Oct - Dec	0.1168	-0.3076	-0.2927

Within-Sample Statistics

Sample size	72	No. parameters	2
Mean	202.98	Std. deviation	1.44
R-square	0.61	Adj. R-square	0.6
Durbin-Watson	1.89	Ljung-Box(18)	15.0 P=0.34
Forecast error	0.91	BIC	0.95
MAPE	0.29	SMAPE	0.29
RMSE	0.9	MAD	0.6
MAD/Mean Ratio	0		

Actual Values for the Most Recent 6 Periods:

Actual

2020-May	204.4
2020-Jun	204.4
2020-Jul	204.4
2020-Aug	204.4
2020-Sep	204.4
2020-Oct	204.4

Forecasted Values

2.5 Lower	Forecast	97.5 Upper	
Date	2.5 Lower	Forecast	97.5 Upper
2020-Nov	202.133	204.003	205.873
2020-Dec	201.764	204.018	206.271
2021-Jan	201.667	204.248	206.829
2021-Feb	201.710	204.581	207.452
2021-Mar	201.453	204.587	207.722
QTR AVG	201.610	204.472	207.334

Interest

First Quarter 2021

The Interstate Commerce Commission, in its decision served February 28, 1989, revised the All-Inclusive Index methodology to include a specific interest component, which is to track changes in the average interest rate from year to year. The interest rate is essentially the embedded cost of debt, i.e., total interest expense divided by average total long term debt.

The interest rate is calculated for the most recent year and used until the next year's figures are finalized. The source data are from a summary of the annual reports (Form R-1) submitted by each of the Class I railroads. Although the data set is received at the end of March, it is not used until the September filing. This enables data to be entered into a database and reviewed – and any revisions made, if necessary, before the data are used in the Index. The current Interest Index is based on 2019 data, and was updated in the Q4 filing submitted on September 4, 2020. The Interest Index based on 2019 decreased to 55.7 from 57.2 in 2018, and is the lowest in recent history.

The R-1 source for interest expense is Schedule 210, column b. The lines currently used are listed below. The source for average total debt is Schedule 200. The sums of data from columns b and c (ending and beginning balances) are combined and divided by 2 to compute an average balance. The line numbers listed below account for the line number changes effective beginning with the 2016 annual report.

Interest Expense (Schedule 210)

Line	
42	Total Fixed Charges
44	Contingent Interest
less	
22	Release of Premium on Funded Debt

Average Total Debt (Schedule 200)

Line	
29	Current Liabilities, Loans and Notes Payable
38	Equipment Obligations and Other Long Term Debt Due Within One Year
40	Non-Current Liabilities: Funded Debt Unmatured
41	Non-Current Liabilities: Equipment Obligations
42	Non-Current Liabilities: Capitalized Lease Obligations
43	Non-Current Liabilities: Debt in Default
44	Non-Current Liabilities: Accounts Payable: Affiliated Companies
45	Non-Current Liabilities: Unamortized Debt Premium

2019	Interest Rate	4.37%
1980	Interest Rate	7.85%
2021Q1	Interest Index	55.7
2020Q4	Interest Index	55.7
	Percent Change	0.0%

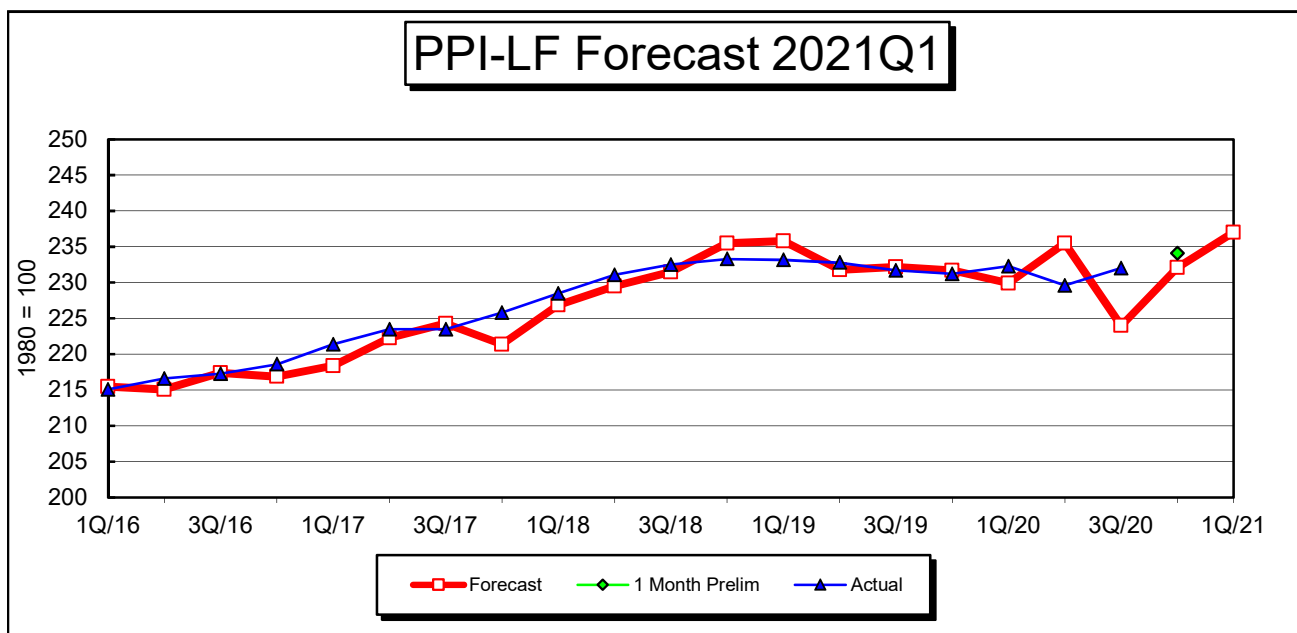
Other Expenses

First Quarter 2021

The Producer Price Index for Industrial Commodities less Fuels and Related Products and Power (PPI-LF) is used to index purchased services, casualties and insurance, loss and damage, taxes (other than income and payroll), general and administrative expenses, and lease rentals. These expenses, when grouped together, are usually called "Other" expenses.

Like the PPI-RE, the PPI-LF is forecast using an ARIMA process on 6 years of monthly data (a sample size of 72) with the most recent available monthly data being the first month of the quarter prior to the forecast quarter. For a first quarter forecast, the most recent month of data available would be for October of the prior year. For a second quarter forecast, January would normally be the most recent month available. April and July would be the most recent months available for third and fourth quarter forecasts, respectively. The output from the forecast model is shown on page 2 of this appendix for 1982=100. The figure forecast by the model is 2.1 percent higher than the prior quarter forecast.

Forecast of Other Expense Index (1982=100)	211.4
Forecast of Other Expense Index (1980=100)	237.0
Change from previous quarter forecast	2.1%
Change from actual first month of previous quarter	1.2%
Change from same quarter of prior year (actual)	2.0%



Other Expenses

First Quarter 2021

PPI INDUSTRIAL COMMODITIES LESS FUEL AND RELATED PRODUCTS AND POWER

Expert Analysis

Using rule-based logic I have narrowed down the choice to exponential smoothing or Box-Jenkins
I will perform an out-of-sample test to select between these two approaches

The cumulative MAD for Exponential smoothing was 2.13 and for Box-Jenkins was 2.29.
The rolling out-of-sample test used a maximum horizon of 12 and generated 78 forecasts for each method

Based on the lower MAD, I will use Exponential Smoothing.

Model Details

Expert selection

Multiplicative Winters: Linear trend, Multiplicative seasonality
LM(0.944, 0.682, 1.000)

Confidence limits proportional to indexes

Component	Smoothing Wgt	Final Value
Level	0.9436	208.7
Trend	0.6818	0.6701
Seasonal	0.9999	

Seasonal Indexes

Jan - Mar	1	0.9995	1
Apr - Jun	0.9996	0.9998	1
Jul - Sep	1	0.9999	0.9998
Oct - Dec	1	1.001	0.9995

Within-Sample Statistics

Sample size	72	No. parameters	3
Mean	200.99	Std. deviation	5.99
R-square	0.99	Adj. R-square	0.99
Durbin-Watson	1.7	Ljung-Box(18)	21.2 P=0.73
Forecast error	0.53	BIC	0.57
MAPE	0.19	SMAPE	0.19
RMSE	0.52	MAD	0.38
MAD/Mean Ratio	0		

Actual Values for the Most Recent 6 Periods:

Actual

2020-May	204.4
2020-Jun	205.0
2020-Jul	205.8
2020-Aug	206.5
2020-Sep	208.4
2020-Oct	208.8

Forecasted Values

Date	2.5 Lower	Forecast	97.5 Upper
2020-Nov	208.389	209.502	210.615
2020-Dec	207.863	209.95	212.037
2021-Jan	208.088	210.821	213.555
2021-Feb	208.037	211.291	214.545
2021-Mar	208.397	212.099	215.801
QTR AVG	208.174	211.404	214.634

Railroad and Union Abbreviations

First Quarter 2021

Railroads

BLE	Bessemer & Lake Erie Railroad (Part of CN's Grand Trunk Corp.)
BNSF	BNSF Railway Company
CC	Chicago, Central & Pacific (Part of CN's Grand Trunk Corp. Sometimes noted as CC&P.)
CN	Canadian National Railway (Commonly known as CN, owns Grand Trunk Corporation.)
CNGT	AAR's abbreviation for Grand Trunk Corporation (Almost all of CN's U.S. operations.)
CP	Canadian Pacific (Also noted as CPR. Owns the U.S. Class I railroad Soo Line.)
CPSL	AAR's abbreviation for Soo Line Corporation (CP's U.S. operations including SOO, D&H, and DME.)
CSX	CSX Transportation
D&H	Delaware & Hudson (Part of Canadian Pacific's U.S. operations, included beginning 2011Q4.)
DME	Dakota, Minnesota & Eastern (Part of Canadian Pacific's U.S. operations, included beginning 2011Q4.)
GTW	Grand Trunk Western Railroad (Part of CN's Grand Trunk Corp.)
IC	Illinois Central Railroad (Part of CN's Grand Trunk Corp.)
KCS	Kansas City Southern Railway
NS	Norfolk Southern Combined Railroad Subsidiaries (a.k.a. Norfolk Southern Railway or NS Rail)
SOO	Soo Line Railroad (The largest part of Canadian Pacific's U.S. operations.)
UP	Union Pacific Railroad
WC	Wisconsin Central and subsidiaries (Part of CN's Grand Trunk Corp.)

Major Unions Involved with Railroads

ATDA	American Train Dispatchers Association
BLET	Brotherhood of Locomotive Engineers and Trainmen Div. of the International Brotherhood of Teamsters
BMWED	Brotherhood of Maintenance of Way Employees Division of the International Brotherhood of Teamsters
BRS	Brotherhood of Railroad Signalmen
IAM	International Association of Machinists and Aerospace Workers
IBBM	International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers & Helpers
IBEW	International Brotherhood of Electrical Workers
NCFO	National Conference of Firemen and Oilers
SMART-TD	International Association of Sheet Metal, Air, Rail, and Transportation Workers - Transportation Division*
SMART-MD	International Association of Sheet Metal, Air, Rail, and Transportation Workers - Mechanical Division**
TCU	Transportation Communication International Union
TCU-Carmen	Brotherhood of Railway Carmen Division of the Transportation Communications International Union

Predecessor Unions (Some AAR databases use these old abbreviations.)

BLE	Brotherhood of Locomotive Engineers (predecessor to BLET)
BMWE	Brotherhood of Maintenance of Way Employees (predecessor to BMWED)
BRC	Brotherhood of Railway Carmen (predecessor to TCU-Carmen)
IBFO	International Brotherhood of Firemen and Oilers (predecessor to NCFO)
SMW	Sheet Metal Workers' International Association (see SMART-MD)
UTU	United Transportation Union (merged into SMART)
UTU-YMD	United Transportation Union Yardmaster Department (see SMART-TD)

* Represents employees formerly represented by the UTU (conductors and brakemen) and also has a separate yardmasters department.

** Represents employees formerly represented by the SMW (steel workers)

AAR Workpapers Sent to STB for 2021 Q1 RCAF

December 4, 2020

- 1 . Index Calculation Spreadsheet (index_calc.xlsx, 2 pages)
- 2 . Summary of ST and PFTNW Hourly Rates (Summary.xlsx)
- 3 . RCAF Taxable Wages adjustment calculation (TaxableRate.xlsx)
- 4 . National Contracts spreadsheet, 2 sections (2 and 5 pages)
- 5 . Wall Street Journal - 13 week Treasury Bill Rate from recent auction (a.k.a. 3-Mo. T-Bill)
- 6 . 2021/Q1 RCAF Lump Sum Amortization summary, public version (1 page)
- 7 . 2021/Q1 RCAF Back Pay Amortization summary, public version (1 page)
- 8 . Health & Welfare worksheet (1 page) and NRLC H&W Rates for 2021 (1 page)
- 9 . Railroad Retirement spreadsheet (5 pages)
- 10 . 2021 Tax Rates and Maximum Taxable Earnings from Railroad Retirement Board
- 11 . Unemployment Insurance Tax worksheet (1 page)
- 12 . Unemployment Insurance Tax Rate for 2021 memo and RRB Maximum Taxable Earnings (2 pages)
- 13 . 2-page SAS run for 2021 Q1 Unemployment Insurance Tax
- 14 . 2 pages from EIA including spot prices for various distillates
- 15 . Summary of Materials & Supplies - "U.S. Summary by Composition Category" (1 page)
- 16 . RCAF Car Hire Forecast Spreadsheet for Equipment Rents (2 pages) plus source data page
- 17 . 6 pages of PPI-RE for Depreciation including graph page, input/output, and BLS source data
- 18 . 6 pages of PPI-LF for Other (and Lease Rentals) incl. graph page, input/output, BLS source data
- 19 . Forecast Error calc. and workpapers (10 pages: calc, fuel, 3 car hire, 2 deprec, 2 other, actual)

RCAF All-Inclusive Index's Labor Index Based on 2019 Benchmarks

	19 Wts.	3Q/20	3Q/20 Rebenchd As Info Only	% Chg	4Q/20	% Chg	1Q/21	% Chg	2Q/21	% Chg	3Q/21	% Chg
Straight Time		\$37.225	\$37.182	-0.1%	\$37.182	-0.1%	\$37.188	0.0%		--		--
PFTNW		\$7.232	\$7.286	0.7%	\$7.286	0.7%	\$7.288	0.0%		--		--
Total		\$44.457	\$44.468	0.0%	\$44.468	0.0%	\$44.476	0.0%	\$0.000	--	\$0.000	--
Adjustments												
Lump Sum		\$0.333	\$0.350		\$0.350		\$0.349					
Back Pay		\$0.000	\$0.000		\$0.000		\$0.017					
Other		\$0.164	\$0.172		\$0.172		\$0.172					
Total Wages		\$44.954	\$44.990	0.1%	\$44.990	0.1%	\$45.014	0.1%	\$0.000	--	\$0.000	--
Pre-Tax Reduction		(\$1.382)	(\$1.394)		(\$1.394)		(\$1.394)					
Taxable Wages		\$43.572	\$43.596		\$43.596		\$43.620		\$0.000		\$0.000	
H & W		\$8.078	\$8.030	-0.6%	\$8.030	-0.6%	\$8.522	6.1%		--		--
RR Ret & Medicare		\$9.290	\$8.945	-3.7%	\$8.945	-3.7%	\$9.054	1.2%		--		--
Unemp. Insurance		\$0.097	\$0.096	-1.0%	\$0.096	-1.0%	\$0.569	492.7%		--		--
Other		\$0.328	\$0.345	5.2%	\$0.137	-58.2%	\$0.203	48.2%		--		--
Total		\$17.793	\$17.416	-2.1%	\$17.208	-3.3%	\$18.348	6.6%	\$0.000	--	\$0.000	--
Adjustments												
Total Supplements		\$17.793	\$17.416	-2.1%	\$17.208	-3.3%	\$18.348	6.6%	\$0.000	--	\$0.000	--
Total Labor		\$62.747	\$62.406	-0.5%	\$62.198	-0.9%	\$63.362	1.9%	\$0.000	--	\$0.000	--
Wage Rate Index	0.7110	384.7	385.0	0.1%	385.0	0.1%	385.2	0.1%	0.0	--	0.0	--
Supplements Index	0.2890	657.5	643.6	-2.1%	635.9	-3.3%	678.0	6.6%	0.0	--	0.0	--
Total Labor Index '18 Wts.		463.8										
Total Labor Index '19 Wts.		463.5	459.7	-0.8%	457.5	-1.3%	469.8	2.7%	0.0	--	0.0	--
Labor Index (Linked)		442.8			437.1	-1.3%	448.9	2.7%	0.0	#####	#DIV/0!	--

All Inclusive Index and RCAF using 2019 Benchmarks and Weights

	19 Wts.	3Q/20	19 Wts. 3Q/20	% Chg	4Q/20	% Chg	1Q/21	% Chg	2Q/21	% Chg	3Q/21	% Chg
Labor	0.326	442.80	442.8	0.0%	437.1	-1.3%	448.9	2.7%	0.0 #####		#DIV/0!	--
Fuel	0.142	142.80	142.8	0.0%	171.2	19.9%	164.7	-3.8%	--		--	--
M&S	0.049	260.70	260.7	0.0%	258.8	-0.7%	264.9	2.4%	--		--	--
Equip. Rents	0.052	235.00	235.0	0.0%	234.1	-0.4%	236.4	1.0%	0.0 #####		#DIV/0!	--
Depreciation	0.159	226.00	226.0	0.0%	226.1	0.0%	226.2	0.0%	--		--	--
Interest	0.025	57.20	57.2	0.0%	55.7	-2.6%	55.7	0.0%	55.7	0.0%	55.7	0.0%
Other	0.247	224.00	224.0	0.0%	232.1	3.6%	237.0	2.1%	--		--	--
Weighted Avg.	1.000	282.50	282.3	-0.1%	286.3	1.4%	290.9	1.6%	1.4 -99.5%		#DIV/0!	--
Linked		263.70			267.4	1.4%	271.7	1.6%	1.3 -99.5%		#DIV/0!	--
Basing Factor												
10/1/80 basis	102.7	256.8			260.4	1.4%	264.6	1.6%	1.3 -99.5%		#DIV/0!	--
10/1/82	120.9	218.1			221.2	1.4%	224.7	1.6%	1.1 -99.5%		#DIV/0!	--
4Q/87	132.2	199.5			202.3	1.4%	205.5	1.6%	1.0 -99.5%		#DIV/0!	--
4Q/92	156.9	168.1			170.4	1.4%	173.2	1.6%	0.8 -99.5%		#DIV/0!	--
4Q/97	173.2	152.3			154.4	1.4%	156.9	1.6%	0.8 -99.5%		#DIV/0!	--
4Q/02	192.1	137.3			139.2	1.4%	141.4	1.6%	0.7 -99.5%		#DIV/0!	--
4Q/07	245.9	107.2			108.7	1.4%	110.5	1.7%	0.5 -99.5%		#DIV/0!	--
4Q/12	297.6	88.6			89.9	1.5%	91.3	1.6%	0.4 -99.6%		#DIV/0!	--
4Q/17 basis	264.5	99.7			101.1	1.4%	102.7	1.6%	0.5 -99.5%		#DIV/0!	--
Car Hire	0.614	222.60	222.6	0.0%	215.9	-3.0%	216.5	0.3%	--		--	--
Lease Rents	0.386	224.00	224.0	0.0%	232.1	3.6%	237.0	2.1%	0.0 --		0.0	--
Weighted Avg Eq Rents		223.20	223.1	0.0%	222.2	-0.4%	224.4	1.0%	0.0 --		0.0	--
Linked Equipment Rents		235.00			234.1	-0.4%	236.4	1.0%	0.0 #####		#DIV/0!	--
Preliminary RCAF		0.997			1.011	1.40%	1.027	1.6%	0.005 -99.5%		#DIV/0!	--
Forecast Error Adj.		(0.008)			(0.070)		0.013					
RCAF Unadjusted		0.989			0.941	-4.85%	1.040	10.5%	0.005 -99.5%		#DIV/0!	--
PAF		2.3823			2.3883	0.25%	2.3943	0.25%	--		--	--
RCAF Adjusted		0.415			0.394	-5.06%	0.434	10.2%	#DIV/0!		#DIV/0!	--
PAF-5		2.5250			2.5280	0.12%	2.5343	0.25%	--		--	--
RCAF-5		0.392			0.372	-5.10%	0.410	10.2%	#DIV/0!		#DIV/0!	--

Hourly Rate for 2021 Q1

Straight Time and Time Paid For But Not Worked

2021Q1 Straight Time Hourly Rate (from national spreadsheet) \$37.175
 No change

Adjustments to 2019 base:

Added 2020 Q1

Miscellaneous Independents	Non-Union GWI	0.006
Soo Corp.	3 GWIs but rounds to zero	0.000

Added 2020 Q2

Miscellaneous Independents	nothing	0.000
Soo Corp.	nothing	0.000

Added 2020 Q3

Miscellaneous Independents	nothing	0.000
Soo Corp.	Four GWIs	0.001

Added 2020 Q4

Miscellaneous Independents	Nothing	0.000
Soo Corp.	4 GWIs but rounds to zero	0.000

Added 2021 Q1

Miscellaneous Independents	Nothing	0.000
Soo Corp.	1 new agreement and a few GWIs	0.006

Adjusted STHR Total **\$37.188**

Pay For Time Not Worked

PFTNW (from national spreadsheet)					\$7.285
Ratio Adj STHR to Nat STHR	37.188	/	37.175	=	1.00035

Adjusted Pay For Time Not Worked **\$7.288**

Adjusted STHR + Adjusted Pay For Time Not Worked **\$44.476**

Notes:

1. Miscellaneous Independent is mostly trainmen, yardmasters, and non-union plus CN's IAM employees.
Includes 20 union groups with employees and 5 non-union groups with employees.
2. Soo Corp. includes SOO, D&H and DM&E.

RCAF Taxable Wages

(To Use for Railroad Retirement and Unemployment Insurance Payroll Tax Calculations)

In the RCAF calculation, Total Wages are the wages paid, while Taxable Wages are the wages on which to base payroll tax calculations. The difference is caused by pre-tax employee contributions to help pay Health & Welfare costs. This page calculates that wage rate difference.

The national agreements feature employee Health & Welfare cost sharing. Some of the independent agreements adopt the dollar amount contributed under the national agreement, and some have their own employee contribution rate. This Cost Sharing is a pre-tax employee contribution to Health & Welfare insurance premiums paid by the employer. The employee contribution reduces employer Health & Welfare costs, while the Health & Welfare insurance premiums paid to the provider are unchanged. In the RCAF calculation, the reduction to the employer's Health & Welfare costs affect the Supplements portion of the Labor component of the index. The Taxable Wage Rate is used for Railroad Retirement and Unemployment Insurance calculations.

Reduction Calculation for 1Q/2021

U.S. ST Hours = 271,399,487
 Wage Statistics are for 2019

Union Group	Employees	Mo. Rate	Annual \$
National ATDA (BNSF, CSX, KCS, NS, SOO, GTW, WC)	1,615	(\$228.89)	(\$4,435,888.20)
National BLET (BNSF, CSX, KCS, NS, UP, SOO, DH)	22,803	(\$228.89)	(\$62,632,544.04)
National BMW (All except SOO, DME, DH)	21,373	(\$228.89)	(\$58,704,791.64)
National BRS (All except DME)	6,744	(\$228.89)	(\$18,523,609.92)
National IAM (BNSF, CSX, KCS, NS, SOO, UP)	6,226	(\$228.89)	(\$17,100,829.68)
National IBBM (BNSF, CSX, KCS, NS, SOO, UP, IC)	1,142	(\$228.89)	(\$3,136,708.56)
National IBEW (All except DME)	4,970	(\$228.89)	(\$13,650,999.60)
National NCFO (All except DME and WC)	2,057	(\$228.89)	(\$5,649,920.76)
National SMW (BNSF, CSX, KCS, NS, UP, IC)	808	(\$228.89)	(\$2,219,317.44)
National TCU (All except DME and DH)	4,580	(\$228.89)	(\$12,579,794.40)
National TCU-CAR (All except DME)	8,109	(\$228.89)	(\$22,272,828.12)
National UTU (BNSF, CSX, KCS, NS, UP, SOO, DH)	34,204	(\$228.89)	(\$93,947,442.72)
Yardmasters (BNSF, CSX, KCS, NS, UP, SOO, DH)	1,505	(\$228.89)	(\$4,133,753.40)
Misc Indep (DME, portions of DH & SOO, portions of CN)	3,873	(\$232.41)	(\$10,801,280.04)
Total Union	120,009		(\$329,789,708.52)
All Other @ \$4,050,907.61 total per month			(\$48,610,891.32)
Total			(\$378,400,599.84)

Reduction in Wage Rate Per ST Hour	-\$1.39425687
Deduct this amount from the Wage Rate	-\$1.394

National Contracts U.S.

Straight Time Hourly Rate															Check Sum
Weight	UTU	TCU	BLET	SMWIA	BRS	BMWE	TCU-CAR	NCFO	IAM	IBBM	IBEW	ATDA	YDMSTR	OTHER	
	0.23747	0.03067	0.17754	0.00531	0.04689	0.14639	0.05497	0.01371	0.0416	0.00791	0.03326	0.01948	0.01057	0.17424	1.00000
2019 Avg.	31.400	31.531	33.551	32.837	35.094	30.342	32.717	27.414	33.061	31.103	33.248	44.050	42.900	55.342	494.590
12/31/19	31.829	31.987	34.069	33.322	35.608	30.778	33.229	27.817	33.567	31.546	33.736	44.540	43.500	55.342	500.872
1/1/20	31.829	31.987	34.069	33.322	35.608	30.778	33.229	27.817	33.567	31.546	33.736	44.540	43.500	57.002	
4/1/20	31.829	31.987	34.069	33.322	35.608	30.778	33.229	27.817	33.567	31.546	33.736	44.540	43.500	57.002	
7/1/20	31.829	31.987	34.069	33.322	35.608	30.778	33.229	27.817	33.567	31.546	33.736	44.540	43.500	57.002	
10/1/20	31.829	31.987	34.069	33.322	35.608	30.778	33.229	27.817	33.567	31.546	33.736	44.540	43.500	57.002	
1/1/21	31.829	31.987	34.069	33.322	35.608	30.778	33.229	27.817	33.567	31.546	33.736	44.540	43.500	57.002	
4/1/21	31.829	31.987	34.069	33.322	35.608	30.778	33.229	27.817	33.567	31.546	33.736	44.540	43.500	57.002	
7/1/21	31.829	31.987	34.069	33.322	35.608	30.778	33.229	27.817	33.567	31.546	33.736	44.540	43.500	57.002	

Weighted Straight Time Hourly Rate															
	UTU	TCU	BLET	SMWIA	BRS	BMWE	TCU-CAR	NCFO	IAM	IBBM	IBEW	ATDA	YDMSTR	OTHER	Total
2019 Avg.	7.457	0.967	5.957	0.174	1.646	4.442	1.798	0.376	1.375	0.246	1.106	0.858	0.454	9.643	36.497
12/31/19	7.559	0.981	6.049	0.177	1.670	4.505	1.826	0.381	1.396	0.250	1.122	0.868	0.460	9.643	36.886
1/1/20	7.559	0.981	6.049	0.177	1.670	4.505	1.826	0.381	1.396	0.250	1.122	0.868	0.460	9.932	37.175
4/1/20	7.559	0.981	6.049	0.177	1.670	4.505	1.826	0.381	1.396	0.250	1.122	0.868	0.460	9.932	37.175
7/1/20	7.559	0.981	6.049	0.177	1.670	4.505	1.826	0.381	1.396	0.250	1.122	0.868	0.460	9.932	37.175
10/1/20	7.559	0.981	6.049	0.177	1.670	4.505	1.826	0.381	1.396	0.250	1.122	0.868	0.460	9.932	37.175
1/1/21	7.559	0.981	6.049	0.177	1.670	4.505	1.826	0.381	1.396	0.250	1.122	0.868	0.460	9.932	37.175
4/1/21	7.559	0.981	6.049	0.177	1.670	4.505	1.826	0.381	1.396	0.250	1.122	0.868	0.460	9.932	37.175
7/1/21	7.559	0.981	6.049	0.177	1.670	4.505	1.826	0.381	1.396	0.250	1.122	0.868	0.460	9.932	37.175

Note: The 2019 Average and 12/31/19 Straight Time Hourly Rates are the industry rates, and include all Class I railroad employees. The rates for 1/1/20 through 7/1/21 are based on the industry year-end rates updated by NATIONAL UNION wage increases using contract information. These national increases are diluted using "percent national" ratios to account for non-national union contracts. The impacts of non-national (or independent contract) increases after 2019 are not shown on this page and are handled separately.

National Contracts U.S.

Pay For Time Not Worked Hourly Rate															Check Sum
Weight	UTU	TCU	BLET	SMWIA	BRS	BMWE	TCU-CAR	NCFO	IAM	IBBM	IBEW	ATDA	YDMSTR	OTHER	1.00000
2019 Avg.	10.499	4.400	12.740	4.873	7.734	5.172	4.366	3.460	5.254	3.040	5.501	6.962	8.283	1.182	83.468
12/31/19	10.643	4.464	12.937	4.945	7.848	5.247	4.434	3.511	5.335	3.084	5.582	7.040	8.398	1.182	
1/1/20	10.643	4.464	12.937	4.945	7.848	5.247	4.434	3.511	5.335	3.084	5.582	7.040	8.398	1.218	
4/1/20	10.643	4.464	12.937	4.945	7.848	5.247	4.434	3.511	5.335	3.084	5.582	7.040	8.398	1.218	
7/1/20	10.643	4.464	12.937	4.945	7.848	5.247	4.434	3.511	5.335	3.084	5.582	7.040	8.398	1.218	
10/1/20	10.643	4.464	12.937	4.945	7.848	5.247	4.434	3.511	5.335	3.084	5.582	7.040	8.398	1.218	
1/1/21	10.643	4.464	12.937	4.945	7.848	5.247	4.434	3.511	5.335	3.084	5.582	7.040	8.398	1.218	
4/1/21	10.643	4.464	12.937	4.945	7.848	5.247	4.434	3.511	5.335	3.084	5.582	7.040	8.398	1.218	
7/1/21	10.643	4.464	12.937	4.945	7.848	5.247	4.434	3.511	5.335	3.084	5.582	7.040	8.398	1.218	

Pay For Time Not Worked Hourly Rate															
	UTU	TCU	BLET	SMWIA	BRS	BMWE	TCU-CAR	NCFO	IAM	IBBM	IBEW	ATDA	YDMSTR	OTHER	Total
2019 Avg.	2.493	0.135	2.262	0.026	0.363	0.757	0.240	0.047	0.219	0.024	0.183	0.136	0.088	0.206	7.178
12/31/19	2.527	0.137	2.297	0.026	0.368	0.768	0.244	0.048	0.222	0.024	0.186	0.137	0.089	0.206	7.279
1/1/20	2.527	0.137	2.297	0.026	0.368	0.768	0.244	0.048	0.222	0.024	0.186	0.137	0.089	0.212	7.285
4/1/20	2.527	0.137	2.297	0.026	0.368	0.768	0.244	0.048	0.222	0.024	0.186	0.137	0.089	0.212	7.285
7/1/20	2.527	0.137	2.297	0.026	0.368	0.768	0.244	0.048	0.222	0.024	0.186	0.137	0.089	0.212	7.285
10/1/20	2.527	0.137	2.297	0.026	0.368	0.768	0.244	0.048	0.222	0.024	0.186	0.137	0.089	0.212	7.285
1/1/21	2.527	0.137	2.297	0.026	0.368	0.768	0.244	0.048	0.222	0.024	0.186	0.137	0.089	0.212	7.285
4/1/21	2.527	0.137	2.297	0.026	0.368	0.768	0.244	0.048	0.222	0.024	0.186	0.137	0.089	0.212	7.285
7/1/21	2.527	0.137	2.297	0.026	0.368	0.768	0.244	0.048	0.222	0.024	0.186	0.137	0.089	0.212	7.285

U.S. National Contract

UTU

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2019 Industry Avg.				31.40017	10.49929
12/31/19 Industry Rate				31.82936	10.64279
1/1/20			93.044%	31.82936	10.64279
4/1/20			93.044%	31.82936	10.64279
7/1/20			93.044%	31.82936	10.64279
10/1/20			93.044%	31.82936	10.64279
1/1/21			93.044%	31.82936	10.64279
4/1/21			93.044%	31.82936	10.64279
7/1/21			93.044%	31.82936	10.64279

TCU

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2019 Industry Avg.				31.53087	4.40030
12/31/19 Industry Rate				31.98742	4.46402
1/1/20			97.808%	31.98742	4.46402
4/1/20			97.808%	31.98742	4.46402
7/1/20			97.808%	31.98742	4.46402
10/1/20			97.808%	31.98742	4.46402
1/1/21			97.808%	31.98742	4.46402
4/1/21			97.808%	31.98742	4.46402
7/1/21			97.808%	31.98742	4.46402

BLET

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2019 Industry Avg.				33.55141	12.74048
12/31/19 Industry Rate				34.06933	12.93715
1/1/20			63.534%	34.06933	12.93715
4/1/20			63.534%	34.06933	12.93715
7/1/20			63.534%	34.06933	12.93715
10/1/20			63.534%	34.06933	12.93715
1/1/21			63.534%	34.06933	12.93715
4/1/21			63.534%	34.06933	12.93715
7/1/21			63.534%	34.06933	12.93715

U.S. National Contract

SMWIA

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2019 Industry Avg.				32.83703	4.87274
12/31/19 Industry Rate				33.32231	4.94475
1/1/20			100.000%	33.32231	4.94475
4/1/20			100.000%	33.32231	4.94475
7/1/20			100.000%	33.32231	4.94475
10/1/20			100.000%	33.32231	4.94475
1/1/21			100.000%	33.32231	4.94475
4/1/21			100.000%	33.32231	4.94475
7/1/21			100.000%	33.32231	4.94475

BRS

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2019 Industry Avg.				35.09406	7.73430
12/31/19 Industry Rate				35.60827	7.84762
1/1/20			98.237%	35.60827	7.84762
4/1/20			98.237%	35.60827	7.84762
7/1/20			98.237%	35.60827	7.84762
10/1/20			98.237%	35.60827	7.84762
1/1/21			98.237%	35.60827	7.84762
4/1/21			98.237%	35.60827	7.84762
7/1/21			98.237%	35.60827	7.84762

BMWE

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2019 Industry Avg.				30.34229	5.17244
12/31/19 Industry Rate				30.77817	5.24674
1/1/20			97.448%	30.77817	5.24674
4/1/20			97.448%	30.77817	5.24674
7/1/20			97.448%	30.77817	5.24674
10/1/20			97.448%	30.77817	5.24674
1/1/21			97.448%	30.77817	5.24674
4/1/21			97.448%	30.77817	5.24674
7/1/21			97.448%	30.77817	5.24674

U.S. National Contract

TCU-Carmen

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2019 Industry Avg.				32.71673	4.36590
12/31/19 Industry Rate				33.22917	4.43428
1/1/20			98.465%	33.22917	4.43428
4/1/20			98.465%	33.22917	4.43428
7/1/20			98.465%	33.22917	4.43428
10/1/20			98.465%	33.22917	4.43428
1/1/21			98.465%	33.22917	4.43428
4/1/21			98.465%	33.22917	4.43428
7/1/21			98.465%	33.22917	4.43428

NCFO

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2019 Industry Avg.				27.41365	3.45986
12/31/19 Industry Rate				27.81716	3.51078
1/1/20			99.232%	27.81716	3.51078
4/1/20			99.232%	27.81716	3.51078
7/1/20			99.232%	27.81716	3.51078
10/1/20			99.232%	27.81716	3.51078
1/1/21			99.232%	27.81716	3.51078
4/1/21			99.232%	27.81716	3.51078
7/1/21			99.232%	27.81716	3.51078

IAM

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2019 Industry Avg.				33.06126	5.25420
12/31/19 Industry Rate				33.56718	5.33460
1/1/20			99.023%	33.56718	5.33460
4/1/20			99.023%	33.56718	5.33460
7/1/20			99.023%	33.56718	5.33460
10/1/20			99.023%	33.56718	5.33460
1/1/21			99.023%	33.56718	5.33460
4/1/21			99.023%	33.56718	5.33460
7/1/21			99.023%	33.56718	5.33460

U.S. National Contract

IBBM

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2019 Industry Avg.				31.10303	3.04023
12/31/19 Industry Rate				31.54601	3.08353
1/1/20			96.522%	31.54601	3.08353
4/1/20			96.522%	31.54601	3.08353
7/1/20			96.522%	31.54601	3.08353
10/1/20			96.522%	31.54601	3.08353
1/1/21			96.522%	31.54601	3.08353
4/1/21			96.522%	31.54601	3.08353
7/1/21			96.522%	31.54601	3.08353

IBEW

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2019 Industry Avg.				33.24761	5.50105
12/31/19 Industry Rate				33.73571	5.58181
1/1/20			98.776%	33.73571	5.58181
4/1/20			98.776%	33.73571	5.58181
7/1/20			98.776%	33.73571	5.58181
10/1/20			98.776%	33.73571	5.58181
1/1/21			98.776%	33.73571	5.58181
4/1/21			98.776%	33.73571	5.58181
7/1/21			98.776%	33.73571	5.58181

ATDA

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2019 Industry Avg.				44.05027	6.96227
12/31/19 Industry Rate				44.54014	7.03969
1/1/20			70.664%	44.54014	7.03969
4/1/20			70.664%	44.54014	7.03969
7/1/20			70.664%	44.54014	7.03969
10/1/20			70.664%	44.54014	7.03969
1/1/21			70.664%	44.54014	7.03969
4/1/21			70.664%	44.54014	7.03969
7/1/21			70.664%	44.54014	7.03969

YDMSTRS

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2019 Industry Avg.				42.89998	8.28253
12/31/19 Industry Rate				43.50011	8.39840
1/1/20			66.274%	43.50011	8.39840
4/1/20			66.274%	43.50011	8.39840
7/1/20			66.274%	43.50011	8.39840
10/1/20			66.274%	43.50011	8.39840
1/1/21			66.274%	43.50011	8.39840
4/1/21			66.274%	43.50011	8.39840
7/1/21			66.274%	43.50011	8.39840

OTHER

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2019 Industry Avg.				55.34156	1.18210
12/31/19 Industry Rate				55.34156	1.18210
1/1/20	3.00%		100.000%	57.00180	1.21756
4/1/20			100.000%	57.00180	1.21756
7/1/20			100.000%	57.00180	1.21756
10/1/20			100.000%	57.00180	1.21756
1/1/21			100.000%	57.00180	1.21756
4/1/21			100.000%	57.00180	1.21756
7/1/21			100.000%	57.00180	1.21756

Check Sums

	Increase	Applicable	ST HR	PFTNW HR
2018 AVG			494.58991	83.46768
12/31/18			500.87188	
		1279.026%		
		ok matches	ok matches	ok matches
			ok matches	

Should match check sum on National Increase Applicability for U.S. Total page.

1279.026%

All three should match check sums on U.S. Benchmark page.

DTCC GCF Repo Index

	LATEST	VALUE TRADED (BILLIONS)	52-WEEK	
			HIGH	LOW
Treasury	0.110	62.150	1.720	0.002
MBS	0.111	40.500	1.763	0.011

Secondary Market

Tuesday, November 24, 2020

Fannie Mae 30-year Mortgage Yields

	LATEST	WK AGO	52-WEEK	
			HIGH	LOW
30 days	1.886	1.881	3.362	1.751
60 days	1.916	1.916	3.370	1.804

U.S. Government Rates

Tuesday, November 24, 2020

Discount Rates [Effective Date: 3/16/20]

	LATEST	WK AGO	52-WEEK	
			HIGH	LOW
	0.25	0.25	2.25	0.25

Federal Funds [Effective Date: 3/16/20]

	LATEST	WK AGO	52-WEEK	
			HIGH	LOW
Effective rate	0.08	0.09	1.62	0.06
Target rate	0.00-0.25	0.00-0.25	1.50-1.75	0.00-0.25
High	0.1000	0.1000	1.6500	0.1000
Low	0.0500	0.0500	1.5800	0.0100
Bid	0.0800	0.0800	1.6000	0.0100
Offer	0.1000	0.1000	1.6300	0.0500

Treasury Bill Auction

	LATEST	WK AGO	52-WEEK	
			HIGH	LOW
4 weeks	0.070	0.085	1.620	0.000
13 weeks	0.085	0.090	1.560	0.000
26 weeks	0.090	0.100	1.580	0.080

Weekly Survey

Thursday, November 19, 2020

Freddie Mac

	LATEST	WK AGO	52-WEEK	
			YEAR AGO	
30-year fixed	2.77	2.84	3.66	

**RCAF Lump Sum Amortization
2021/Q1**

	Quarter of Payment	Quarter Amortization Began	Amount	Annual Per ST Hour	1 Quarter Per ST Hour	U.S. ST Hours
CSX - BLET 2020	2020Q1	2020Q2				271,399,487
NS - BLET 2019Q4 PPI	2020Q1	2020Q2				271,399,487
NS - BLET 2020 Ave PPI	2020Q1	2020Q2				271,399,487
NS - BLET 2020 TPB	2020Q1	2020Q2				271,399,487
NS - BLET 2020Q1 PPI	2020Q2	2020Q3				271,399,487
NS - BLET 2020Q2 PPI	2020Q3	2020Q4				271,399,487
NS - BLET 2020Q3 PPI	2020Q4	2021Q1				271,399,487
Total			\$94,416,008	0.34789		

Should be slightly less
than amortized amount.

Fell out

NS - BLET 2019Q3 PPI	2019Q4	2020Q1				271,399,487
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Interest Rate

2018/Q3	1.880
2018/Q4	2.080
2019/Q1	2.370
2019/Q2	2.405
2019/Q3	2.335
2019/Q4	1.950
2020/Q1	1.560
2020/Q2	1.505
2020/Q3	0.130
2020/Q4	0.100
2021/Q1	0.085
2021/Q2	

Lump Sum Adjustment for 2021/Q1	→ 0.348622
	or
	0.349

**RCAF Back Pay Amortization
2021/Q1**

	Quarter of Payment	Quarter Amortization Began	Amount	Annual Per ST Hour	1 Quarter Per ST Hr.	U.S. ST Hours
DME - all unions 2020	2020Q1	2020Q2				271,399,487 2019
DME - BMW	2020Q4	2021Q1				271,399,487 2019
Total			\$4,548,946	0.01676107		

Should be slightly less
than amortized amount.

Fell out

None

Notes:

"UTU" is now called SMART-TD (Transportation Division), and SMW is now called SMART-MD (Mechanical Division)

CN railroads 2018Q4 = IC BLET, CCP BLET, GTW UTU, GTW UTU-YMD, WC UTU-YMD

CP railroads 2018Q4 = DH BRC, DH IAM, SOO NCFO, SOO IBEW, SOO BRS, SOO UTU-YDM

CP railroads 2019Q3 = DME IAM, SOO IAM, SOO BRC

Interest Rate

2018/Q2	1.570
2018/Q3	1.880
2018/Q4	2.080
2019/Q1	2.370
2019/Q2	2.405
2019/Q3	2.335
2019/Q4	1.950
2020/Q1	1.560
2020/Q2	1.505
2020/Q3	0.130
2020/Q4	0.100
2021/Q1	0.085
2021/Q2	

Back Pay Adjustment for 2021/Q1

0.01677

or

0.017

Health and Welfare 2021Q1

	Employees Receiving			Total	
	Pay 2019	Monthly Contribution 2019 Avg. 2021		2019 Avg.	2021
1. All Employees					
a. Group health	142,449	\$1,607.55	\$1,697.55	\$228,993,889.95	\$241,814,299.95
b. Group dental	142,449	63.67	63.67	9,069,727.83	9,069,727.83
c. Early retirement major medical	142,449	129.38	116.94	18,430,051.62	16,657,986.06
d. Group vision	142,449	8.44	8.51	1,202,269.56	1,212,240.99
2. Supplemental Sickness					
a. Signalmen	6,773	41.32	45.05	279,860.36	305,123.65
b. Shopcrafts	21,324	67.87	87.74	1,447,259.88	1,870,967.76
c. MOW	21,940	44.82	39.94	983,350.80	876,283.60
d. Yardmasters	1,608	45.75	60.48	73,566.00	97,251.84
3. Short-Term Disability					
a. Engineers (CSX, KCS, SOO, UP)	10,898	40.00	40.00	435,920.00	435,920.00
4. Monthly Total Premiums				260,915,896.00	272,339,801.68
5. Monthly Employee Contributions To H&W					
a. National ATDA (BNSF, CSX, KCS, NS, SOO, GTW, WC)	1,615	(\$228.89)	(\$228.89)	(\$369,657.35)	(369,657.35)
b. National BLET (BNSF, CSX, KCS, NS, UP, SOO, DH)	22,803	(\$228.89)	(\$228.89)	(\$5,219,378.67)	(5,219,378.67)
c. National BMW (All except SOO, DME, DH)	21,373	(\$228.89)	(\$228.89)	(\$4,892,065.97)	(4,892,065.97)
d. National BRS (All except DME)	6,744	(\$228.89)	(\$228.89)	(\$1,543,634.16)	(1,543,634.16)
e. National IAM (BNSF, CSX, KCS, NS, SOO, UP)	6,226	(\$228.89)	(\$228.89)	(\$1,425,069.14)	(1,425,069.14)
f. National IBBM (BNSF, CSX, KCS, NS, SOO, UP, IC)	1,142	(\$228.89)	(\$228.89)	(\$261,392.38)	(261,392.38)
g. National IBEW (All except DME)	4,970	(\$228.89)	(\$228.89)	(\$1,137,583.30)	(1,137,583.30)
h. National NCFO (All except DME and WC)	2,057	(\$228.89)	(\$228.89)	(\$470,826.73)	(470,826.73)
i. National SMW (BNSF, CSX, KCS, NS, UP, IC)	808	(\$228.89)	(\$228.89)	(\$184,943.12)	(184,943.12)
j. National TCU (All except DME and DH)	4,580	(\$228.89)	(\$228.89)	(\$1,048,316.20)	(1,048,316.20)
k. National TCU-CAR (All except DME)	8,109	(\$228.89)	(\$228.89)	(\$1,856,069.01)	(1,856,069.01)
l. National UTU (BNSF, CSX, KCS, NS, UP, SOO, DH)	34,204	(\$228.89)	(\$228.89)	(\$7,828,953.56)	(7,828,953.56)
m. Yardmasters (BNSF, CSX, KCS, NS, UP*, SOO, DH)	1,505	(\$228.89)	(\$228.89)	(\$344,479.45)	(\$344,479.45)
n. Misc Indep (DME, portions of DH & SOO, portions of CN)	3,873	(\$231.92)	(\$232.41)	(\$898,225.17)	(900,106.67)
Total Major Union	120,009			(\$27,480,594.21)	(\$27,482,475.71)
All Other Employee Contributions*				(\$4,042,480.71)	(\$4,042,480.71)
6. Net Employer Monthly Payments				\$229,392,821.08	\$240,814,845.26
7. Ratio Projected Year to Base Year, Based on Net Monthly Payments					1.04979
8. H&W hourly rate for base year 2019				\$8.118	
9. H&W hourly rate for projected quarter					\$8.522

* Non-union employee contributions net of opt-outs. The \$27,480,594.21 in major union contributions, plus \$4,042,480.71 in all other employee contributions, totals to the 12-month average of the total employee contributions reported to the AAR in its WF survey.

NATIONAL RAILWAY LABOR CONFERENCE

EMPLOYEE BENEFITS DEPARTMENT

251 – 18th Street, South, Suite 750, Arlington, VA 22202 ~~~ PHONE: (571) 336-7600

David B. Marcus
Director Employee Benefits
(571) 336-7596
Email: dmarcus@rrnrlc.org

Eureka Norment
National Health Plan Manager
(571) 336-7629
Email: Enorment@rrnrlc.org

November 17, 2020

Ms. Tiffany Placker (tplacker@aar.org)
Economist
Association of American Railroads
425 Third Street, SW, Suite 1000
Washington, D.C. 20024

Dear Ms. Placker:

The revised employer Payment Rates, which are effective January 1, 2021 are as follows:

Railroad Employees National Health & Welfare Plan & National Railway Carriers/United Transportation Union H&W Plan Non-Hospital Road	\$1,697.55
Railroad Employees National Early Retirement Major Medical Benefit Plan Non-Hospital Road	\$ 116.94
Aetna - National Dental Plan	\$ 63.67
Aetna - Supplemental Sickness Plans	
ShopCrafts	\$ 87.74
Signalmen	\$ 45.05
Maintenance of Way	\$ 39.94
Trustmark - Supplemental Sickness Plans Yardmasters	\$ 60.48
EyeMed - National Vision Plan	\$ 8.51

If you have any questions or need clarification, please contact me.

Very truly yours,

Eureka Norment

cc: Deena Beshir, AAR (dbeshir@aar.org)

Railroad Retirement and Medicare for RCAF

Inputs:

RRB Earnings Distribution Year	2018	Tier I Maximum Taxable Earnings for 2021	142,800
Wage Statistics Year	2019	Tier II Maximum Taxable Earnings for 2021	106,200
Current Year	2021	Medicare Maximum Taxable Earnings for 2021	no limit
Employees Receiving Pay*	142,449	Tier I Employer Tax Rate for 2021	6.20%
* from 2019 final wage statistics		Tier II Employer Tax Rate for 2021	13.10%
		Medicare Employer Tax Rate for 2021	1.45%

USA RCAF	Wage Rate	Update Factor	Railroad Retirement Tax	Hourly Rate
2018	\$41.687			
2019	\$43.000	1.03150	\$647,882,921	\$8.758
1Q/2021	\$43.620	1.04637	\$669,793,917	\$9.054
2Q/2021		0.00000	--	\$0.000
3Q/2021		0.00000	--	\$0.000
4Q/2021		0.00000	--	\$0.000

Railroad Retirement & Medicare, U.S.

From 2018 Earnings Distribution			1Q/2021 Updated Using Earnings Distribution & Wage Statistics, plus Current Wage Rates with Current Tax Info								
Earnings Groups	Avg Ann. Earnings	% of Total Employees	Employees Recvg. Pay	Annual Earnings	Avg Qtly Earnings	Tier I Taxable	Tier II Taxable	Medicare Taxable	Total Taxable Earnings (Taxable x Employees)		
									Tier I	Tier II	Medicare
\$0 - 41,699	\$27,759	1.052	% 1,499	\$29,046	\$7,262	\$7,262	\$7,262	\$7,262	\$10,881,881	\$10,881,881	\$10,881,881
41,700 - 43,699	\$42,886	0.473	674	44,875	11,219	11,219	11,219	11,219	7,558,944	7,558,944	7,558,944
43,700 - 45,699	\$44,794	0.368	524	46,871	11,718	11,718	11,718	11,718	6,142,598	6,142,598	6,142,598
45,700 - 47,699	\$46,360	0.579	825	48,510	12,127	12,127	12,127	12,127	10,002,451	10,002,451	10,002,451
47,700 - 49,699	\$48,585	0.631	899	50,838	12,709	12,709	12,709	12,709	11,423,942	11,423,942	11,423,942
49,700 - 51,699	\$50,995	0.631	899	53,360	13,340	13,340	13,340	13,340	11,990,613	11,990,613	11,990,613
51,700 - 53,699	\$52,927	1.105	1,574	55,381	13,845	13,845	13,845	13,845	21,793,350	21,793,350	21,793,350
53,700 - 55,699	\$54,762	1.105	1,574	57,301	14,325	14,325	14,325	14,325	22,548,934	22,548,934	22,548,934
55,700 - 57,699	\$56,774	1.420	2,023	59,407	14,852	14,852	14,852	14,852	30,041,545	30,041,545	30,041,545
57,700 - 59,699	\$58,646	0.999	1,423	61,365	15,341	15,341	15,341	15,341	21,831,738	21,831,738	21,831,738
59,700 - 61,699	\$60,905	1.894	2,698	63,729	15,932	15,932	15,932	15,932	42,985,042	42,985,042	42,985,042
61,700 - 63,699	\$62,663	2.578	3,672	65,569	16,392	16,392	16,392	16,392	60,197,510	60,197,510	60,197,510
63,700 - 65,699	\$64,661	3.051	4,346	67,659	16,915	16,915	16,915	16,915	73,513,831	73,513,831	73,513,831
65,700 - 67,699	\$66,705	3.524	5,020	69,798	17,450	17,450	17,450	17,450	87,594,880	87,594,880	87,594,880
67,700 - 69,699	\$68,607	3.524	5,020	71,788	17,947	17,947	17,947	17,947	90,092,526	90,092,526	90,092,526
69,700 - 71,699	\$70,683	3.630	5,171	73,961	18,490	18,490	18,490	18,490	95,610,597	95,610,597	95,610,597
71,700 - 73,699	\$72,689	3.261	4,645	76,060	19,015	19,015	19,015	19,015	88,329,124	88,329,124	88,329,124
73,700 - 75,699	\$74,731	2.998	4,271	78,196	19,549	19,549	19,549	19,549	83,486,615	83,486,615	83,486,615
75,700 - 77,699	\$76,815	2.893	4,121	80,377	20,094	20,094	20,094	20,094	82,809,259	82,809,259	82,809,259
77,700 - 79,699	\$78,625	3.893	5,546	82,271	20,568	20,568	20,568	20,568	114,058,983	114,058,983	114,058,983
79,700 - 81,699	\$80,695	3.156	4,496	84,437	21,109	21,109	21,109	21,109	94,900,402	94,900,402	94,900,402
81,700 - 83,699	\$82,632	3.261	4,645	86,464	21,616	21,616	21,616	21,616	100,411,509	100,411,509	100,411,509
83,700 - 85,699	\$84,635	3.051	4,346	88,559	22,140	22,140	22,140	22,140	96,222,501	96,222,501	96,222,501
85,700 - 87,699	\$86,708	3.156	4,496	90,729	22,682	22,682	22,682	22,682	101,971,920	101,971,920	101,971,920
87,700 - 89,699	\$88,593	2.946	4,197	92,701	23,175	23,175	23,175	23,175	97,256,040	97,256,040	97,256,040
89,700 - 91,699	\$90,613	3.051	4,346	94,815	23,704	23,704	23,704	23,704	103,018,957	103,018,957	103,018,957
91,700 - 93,699	\$92,672	2.578	3,672	96,969	24,242	24,242	24,242	24,242	89,025,799	89,025,799	89,025,799
93,700 - 95,699	\$94,637	2.735	3,896	99,025	24,756	24,756	24,756	24,756	96,450,110	96,450,110	96,450,110
95,700 - 97,699	\$96,662	2.104	2,997	101,144	25,286	25,286	25,286	25,286	75,785,469	75,785,469	75,785,469
97,700 - 99,699	\$98,587	2.209	3,147	103,158	25,790	25,790	25,790	25,790	81,152,107	81,152,107	81,152,107
99,700 - 101,699	\$100,672	2.209	3,147	105,340	26,335	26,335	26,335	26,335	82,868,379	82,868,379	82,868,379
101,700 - 103,699	\$102,671	2.104	2,997	107,432	26,858	26,858	26,550	26,858	80,496,678	79,573,721	80,496,678
103,700 - 105,699	\$104,782	1.999	2,848	109,641	27,410	27,410	26,550	27,410	78,051,977	75,602,599	78,051,977
105,700 - 107,699	\$106,674	2.157	3,073	111,620	27,905	27,905	26,550	27,905	85,741,911	81,578,192	85,741,911
107,700 - 109,699	\$108,720	2.052	2,923	113,761	28,440	28,440	26,550	28,440	83,132,575	77,607,070	83,132,575
109,700 - 111,699	\$110,896	1.105	1,574	116,038	29,010	29,010	26,550	29,010	45,662,806	41,791,331	45,662,806
111,700 - 113,699	\$112,783	1.420	2,023	118,013	29,503	29,503	26,550	29,503	59,678,297	53,704,697	59,678,297
113,700 - 115,699	\$114,721	1.315	1,873	120,041	30,010	30,010	26,550	30,010	56,215,116	49,733,575	56,215,116
\$115,700 - over	\$152,731	17.783	25,332	159,813	39,953	35,700	26,550	39,953	904,341,892	672,556,786	1,012,084,226
TOTAL	\$93,738	100.000	142,449								
Total Taxable Earnings									3,385,278,811	3,124,105,530	3,493,021,145
Employer Tax Rate									6.20%	13.10%	1.45%
Quarterly Payment									\$209,887,286	\$409,257,824	\$50,648,807

Total Tier I, Tier II, and Medicare Paid this Quarter **\$669,793,917**

Railroad Retirement & Medicare, U.S.

From 2018 Earnings Distribution			2Q/2021 Updated Using Earnings Distribution & Wage Statistics, plus Current Wage Rates with Current Tax Info								
Earnings Groups	Avg Ann. Earnings	% of Total Employees	Employees Recvg. Pay	Annual Earnings	Avg Qtly Earnings	Tier I Taxable	Tier II Taxable	Medicare Taxable	Total Taxable Earnings (Taxable x Employees)		
									Tier I	Tier II	Medicare
\$0 - 41,699	\$27,759	1.052	1,499	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
41,700 - 43,699	\$42,886	0.473	674	0	0	0	0	0	0	0	0
43,700 - 45,699	\$44,794	0.368	524	0	0	0	0	0	0	0	0
45,700 - 47,699	\$46,360	0.579	825	0	0	0	0	0	0	0	0
47,700 - 49,699	\$48,585	0.631	899	0	0	0	0	0	0	0	0
49,700 - 51,699	\$50,995	0.631	899	0	0	0	0	0	0	0	0
51,700 - 53,699	\$52,927	1.105	1,574	0	0	0	0	0	0	0	0
53,700 - 55,699	\$54,762	1.105	1,574	0	0	0	0	0	0	0	0
55,700 - 57,699	\$56,774	1.420	2,023	0	0	0	0	0	0	0	0
57,700 - 59,699	\$58,646	0.999	1,423	0	0	0	0	0	0	0	0
59,700 - 61,699	\$60,905	1.894	2,698	0	0	0	0	0	0	0	0
61,700 - 63,699	\$62,663	2.578	3,672	0	0	0	0	0	0	0	0
63,700 - 65,699	\$64,661	3.051	4,346	0	0	0	0	0	0	0	0
65,700 - 67,699	\$66,705	3.524	5,020	0	0	0	0	0	0	0	0
67,700 - 69,699	\$68,607	3.524	5,020	0	0	0	0	0	0	0	0
69,700 - 71,699	\$70,683	3.630	5,171	0	0	0	0	0	0	0	0
71,700 - 73,699	\$72,689	3.261	4,645	0	0	0	0	0	0	0	0
73,700 - 75,699	\$74,731	2.998	4,271	0	0	0	0	0	0	0	0
75,700 - 77,699	\$76,815	2.893	4,121	0	0	0	0	0	0	0	0
77,700 - 79,699	\$78,625	3.893	5,546	0	0	0	0	0	0	0	0
79,700 - 81,699	\$80,695	3.156	4,496	0	0	0	0	0	0	0	0
81,700 - 83,699	\$82,632	3.261	4,645	0	0	0	0	0	0	0	0
83,700 - 85,699	\$84,635	3.051	4,346	0	0	0	0	0	0	0	0
85,700 - 87,699	\$86,708	3.156	4,496	0	0	0	0	0	0	0	0
87,700 - 89,699	\$88,593	2.946	4,197	0	0	0	0	0	0	0	0
89,700 - 91,699	\$90,613	3.051	4,346	0	0	0	0	0	0	0	0
91,700 - 93,699	\$92,672	2.578	3,672	0	0	0	0	0	0	0	0
93,700 - 95,699	\$94,637	2.735	3,896	0	0	0	0	0	0	0	0
95,700 - 97,699	\$96,662	2.104	2,997	0	0	0	0	0	0	0	0
97,700 - 99,699	\$98,587	2.209	3,147	0	0	0	0	0	0	0	0
99,700 - 101,699	\$100,672	2.209	3,147	0	0	0	0	0	0	0	0
101,700 - 103,699	\$102,671	2.104	2,997	0	0	0	308	0	0	922,958	0
103,700 - 105,699	\$104,782	1.999	2,848	0	0	0	860	0	0	2,449,379	0
105,700 - 107,699	\$106,674	2.157	3,073	0	0	0	1,355	0	0	4,163,719	0
107,700 - 109,699	\$108,720	2.052	2,923	0	0	0	1,890	0	0	5,525,505	0
109,700 - 111,699	\$110,896	1.105	1,574	0	0	0	2,460	0	0	3,871,474	0
111,700 - 113,699	\$112,783	1.420	2,023	0	0	0	2,953	0	0	5,973,599	0
113,700 - 115,699	\$114,721	1.315	1,873	0	0	0	3,460	0	0	6,481,540	0
\$115,700 - over	\$152,731	17.783	25,332	0	0	4,253	13,403	0	107,742,334	339,527,441	0
TOTAL		100.000	142,449								
Total Taxable Earnings									107,742,334	368,915,614	0
Employer Tax Rate									6.20%	13.10%	1.45%
Quarterly Payment									\$6,680,025	\$48,327,945	\$0

Total Tier I, Tier II, and Medicare Paid this Quarter **\$55,007,970**

Railroad Retirement & Medicare, U.S.

From 2018 Earnings Distribution			3Q/2021 Updated Using Earnings Distribution & Wage Statistics, plus Current Wage Rates with Current Tax Info									
Earnings Groups	Avg Ann. Earnings	% of Total Employees	Employees Recvg. Pay	Annual Earnings	Avg Qtly Earnings	Tier I Taxable	Tier II Taxable	Medicare Taxable	Total Taxable Earnings (Taxable x Employees)			
									Tier I	Tier II	Medicare	
\$0 - 41,699	\$27,759	1.052	1,499	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
41,700 - 43,699	\$42,886	0.473	674	0	0	0	0	0	0	0	0	
43,700 - 45,699	\$44,794	0.368	524	0	0	0	0	0	0	0	0	
45,700 - 47,699	\$46,360	0.579	825	0	0	0	0	0	0	0	0	
47,700 - 49,699	\$48,585	0.631	899	0	0	0	0	0	0	0	0	
49,700 - 51,699	\$50,995	0.631	899	0	0	0	0	0	0	0	0	
51,700 - 53,699	\$52,927	1.105	1,574	0	0	0	0	0	0	0	0	
53,700 - 55,699	\$54,762	1.105	1,574	0	0	0	0	0	0	0	0	
55,700 - 57,699	\$56,774	1.420	2,023	0	0	0	0	0	0	0	0	
57,700 - 59,699	\$58,646	0.999	1,423	0	0	0	0	0	0	0	0	
59,700 - 61,699	\$60,905	1.894	2,698	0	0	0	0	0	0	0	0	
61,700 - 63,699	\$62,663	2.578	3,672	0	0	0	0	0	0	0	0	
63,700 - 65,699	\$64,661	3.051	4,346	0	0	0	0	0	0	0	0	
65,700 - 67,699	\$66,705	3.524	5,020	0	0	0	0	0	0	0	0	
67,700 - 69,699	\$68,607	3.524	5,020	0	0	0	0	0	0	0	0	
69,700 - 71,699	\$70,683	3.630	5,171	0	0	0	0	0	0	0	0	
71,700 - 73,699	\$72,689	3.261	4,645	0	0	0	0	0	0	0	0	
73,700 - 75,699	\$74,731	2.998	4,271	0	0	0	0	0	0	0	0	
75,700 - 77,699	\$76,815	2.893	4,121	0	0	0	0	0	0	0	0	
77,700 - 79,699	\$78,625	3.893	5,546	0	0	0	0	0	0	0	0	
79,700 - 81,699	\$80,695	3.156	4,496	0	0	0	0	0	0	0	0	
81,700 - 83,699	\$82,632	3.261	4,645	0	0	0	0	0	0	0	0	
83,700 - 85,699	\$84,635	3.051	4,346	0	0	0	0	0	0	0	0	
85,700 - 87,699	\$86,708	3.156	4,496	0	0	0	0	0	0	0	0	
87,700 - 89,699	\$88,593	2.946	4,197	0	0	0	0	0	0	0	0	
89,700 - 91,699	\$90,613	3.051	4,346	0	0	0	0	0	0	0	0	
91,700 - 93,699	\$92,672	2.578	3,672	0	0	0	0	0	0	0	0	
93,700 - 95,699	\$94,637	2.735	3,896	0	0	0	0	0	0	0	0	
95,700 - 97,699	\$96,662	2.104	2,997	0	0	0	0	0	0	0	0	
97,700 - 99,699	\$98,587	2.209	3,147	0	0	0	0	0	0	0	0	
99,700 - 101,699	\$100,672	2.209	3,147	0	0	0	0	0	0	0	0	
101,700 - 103,699	\$102,671	2.104	2,997	0	0	0	0	0	0	0	0	
103,700 - 105,699	\$104,782	1.999	2,848	0	0	0	0	0	0	0	0	
105,700 - 107,699	\$106,674	2.157	3,073	0	0	0	0	0	0	0	0	
107,700 - 109,699	\$108,720	2.052	2,923	0	0	0	0	0	0	0	0	
109,700 - 111,699	\$110,896	1.105	1,574	0	0	0	0	0	0	0	0	
111,700 - 113,699	\$112,783	1.420	2,023	0	0	0	0	0	0	0	0	
113,700 - 115,699	\$114,721	1.315	1,873	0	0	0	0	0	0	0	0	
\$115,700 - over	\$152,731	17.783	25,332	0	0	0	0	0	0	0	0	
TOTAL		100.000	142,449						0	0	0	
Total Taxable Earnings									0	0	0	
Employer Tax Rate									6.20%	13.10%	1.45%	
Quarterly Payment									\$0	\$0	\$0	
Total Tier I, Tier II, and Medicare Paid this Quarter												\$0

Railroad Retirement & Medicare, U.S.

From 2018 Earnings Distribution			4Q/2021 Updated Using Earnings Distribution & Wage Statistics, plus Current Wage Rates with Current Tax Info									
Earnings Groups	Avg Ann. Earnings	% of Total Employees	Employees Recvg. Pay	Annual Earnings	Avg Qtly Earnings	Tier I Taxable	Tier II Taxable	Medicare Taxable	Total Taxable Earnings (Taxable x Employees)			
									Tier I	Tier II	Medicare	
\$0 - 41,699	\$27,759	1.052	1,499	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
41,700 - 43,699	\$42,886	0.473	674	0	0	0	0	0	0	0	0	
43,700 - 45,699	\$44,794	0.368	524	0	0	0	0	0	0	0	0	
45,700 - 47,699	\$46,360	0.579	825	0	0	0	0	0	0	0	0	
47,700 - 49,699	\$48,585	0.631	899	0	0	0	0	0	0	0	0	
49,700 - 51,699	\$50,995	0.631	899	0	0	0	0	0	0	0	0	
51,700 - 53,699	\$52,927	1.105	1,574	0	0	0	0	0	0	0	0	
53,700 - 55,699	\$54,762	1.105	1,574	0	0	0	0	0	0	0	0	
55,700 - 57,699	\$56,774	1.420	2,023	0	0	0	0	0	0	0	0	
57,700 - 59,699	\$58,646	0.999	1,423	0	0	0	0	0	0	0	0	
59,700 - 61,699	\$60,905	1.894	2,698	0	0	0	0	0	0	0	0	
61,700 - 63,699	\$62,663	2.578	3,672	0	0	0	0	0	0	0	0	
63,700 - 65,699	\$64,661	3.051	4,346	0	0	0	0	0	0	0	0	
65,700 - 67,699	\$66,705	3.524	5,020	0	0	0	0	0	0	0	0	
67,700 - 69,699	\$68,607	3.524	5,020	0	0	0	0	0	0	0	0	
69,700 - 71,699	\$70,683	3.630	5,171	0	0	0	0	0	0	0	0	
71,700 - 73,699	\$72,689	3.261	4,645	0	0	0	0	0	0	0	0	
73,700 - 75,699	\$74,731	2.998	4,271	0	0	0	0	0	0	0	0	
75,700 - 77,699	\$76,815	2.893	4,121	0	0	0	0	0	0	0	0	
77,700 - 79,699	\$78,625	3.893	5,546	0	0	0	0	0	0	0	0	
79,700 - 81,699	\$80,695	3.156	4,496	0	0	0	0	0	0	0	0	
81,700 - 83,699	\$82,632	3.261	4,645	0	0	0	0	0	0	0	0	
83,700 - 85,699	\$84,635	3.051	4,346	0	0	0	0	0	0	0	0	
85,700 - 87,699	\$86,708	3.156	4,496	0	0	0	0	0	0	0	0	
87,700 - 89,699	\$88,593	2.946	4,197	0	0	0	0	0	0	0	0	
89,700 - 91,699	\$90,613	3.051	4,346	0	0	0	0	0	0	0	0	
91,700 - 93,699	\$92,672	2.578	3,672	0	0	0	0	0	0	0	0	
93,700 - 95,699	\$94,637	2.735	3,896	0	0	0	0	0	0	0	0	
95,700 - 97,699	\$96,662	2.104	2,997	0	0	0	0	0	0	0	0	
97,700 - 99,699	\$98,587	2.209	3,147	0	0	0	0	0	0	0	0	
99,700 - 101,699	\$100,672	2.209	3,147	0	0	0	0	0	0	0	0	
101,700 - 103,699	\$102,671	2.104	2,997	0	0	0	0	0	0	0	0	
103,700 - 105,699	\$104,782	1.999	2,848	0	0	0	0	0	0	0	0	
105,700 - 107,699	\$106,674	2.157	3,073	0	0	0	0	0	0	0	0	
107,700 - 109,699	\$108,720	2.052	2,923	0	0	0	0	0	0	0	0	
109,700 - 111,699	\$110,896	1.105	1,574	0	0	0	0	0	0	0	0	
111,700 - 113,699	\$112,783	1.420	2,023	0	0	0	0	0	0	0	0	
113,700 - 115,699	\$114,721	1.315	1,873	0	0	0	0	0	0	0	0	
\$115,700 - over	\$152,731	17.783	25,332	0	0	0	0	0	0	0	0	
TOTAL		100.000	142,449						0	0	0	
						Total Taxable Earnings			0	0	0	
						Employer Tax Rate			6.20%	13.10%	1.45%	
						Quarterly Payment			\$0	\$0	\$0	
Total Tier I, Tier II, and Medicare Paid this Quarter												\$0

**Tax Rates and Maximum Taxable Earnings Under Social Security,
Railroad Retirement and Railroad Unemployment Insurance Programs, Continued**

Period	Railroad Retirement					Railroad Unemployment Insurance				Unemployment Repayment	
	Maximum earnings base [5]		Tax rate (percent) [5]							Tax [6]	
			Tier I	Tier II		Maximum monthly taxable earnings	Employer tax rate [7] (percent)	Surcharge or (pooled credit)	New employer tax rate (percent)		
	Tier I [9]	Tier II	Employer & employee each	Employer	Employee						
1991	53,400	39,600	7.65	16.1	4.9	765	5.55 - 12.0	...	8.00	765	4.0
1992	55,500	41,400	7.65	16.1	4.9	785	3.10 - 12.0	(3.12)	8.00	785	4.0
1993	57,600	42,900	7.65	16.1	4.9	810	0.65 - 12.0	(5.31)	7.30	810	4.0
1994	60,600	45,000	7.65	16.1	4.9	840	0.65 - 12.0	(0.22)	6.06		
1995	61,200	45,300	7.65	16.1	4.9	850	0.65 - 12.0	...	4.15		
1996	62,700	46,500	7.65	16.1	4.9	865	0.65 - 12.0	...	2.31		
1997	65,400	48,600	7.65	16.1	4.9	890	0.65 - 12.0	...	1.16		
1998	68,400	50,700	7.65	16.1	4.9	925	2.15 - 12.0	1.5	0.85		
1999	72,600	53,700	7.65	16.1	4.9	970	2.15 - 12.0	1.5	0.92		
2000	76,200	56,700	7.65	16.1	4.9	1,005	0.65 - 12.0	...	1.67		
2001	80,400	59,700	7.65	16.1	4.9	1,050	2.15 - 12.0	1.5	2.59		
2002	84,900	63,000	7.65	15.6	4.9	1,100	3.15 - 12.0	2.5	2.71		
2003	87,000	64,500	7.65	14.2	4.9	1,120	3.15 - 12.0	2.5	2.36		
2004	87,900	65,100	7.65	13.1	4.9	1,130	2.15 - 12.0	1.5	2.38		
2005	90,000	66,900	7.65	12.6	4.4	1,150	2.15 - 12.0	1.5	3.43		
2006	94,200	69,900	7.65	12.6	4.4	1,195	2.15 - 12.0	1.5	4.03		
2007	97,500	72,600	7.65	12.1	3.9	1,230	2.15 - 12.0	1.5	3.75		
2008	102,000	75,900	7.65	12.1	3.9	1,280	2.15 - 12.0	1.5	3.02		
2009	106,800	79,200	7.65	12.1	3.9	1,330	2.15 - 12.0	1.5	2.61		
2010	106,800	79,200	7.65	12.1	3.9	1,330	2.15 - 12.0	1.5	2.51		
2011	106,800	79,200	[2] 7.65	12.1	3.9	1,330	3.15 - 12.0	2.5	2.50		
2012	110,100	81,900	[2] 7.65	12.1	3.9	1,365	2.15 - 12.0	1.5	2.65		
2013	113,700	84,300	[3] 7.65	12.6	4.4	1,405	0.65 - 12.0	...	3.69		
2014	117,000	87,000	[3] 7.65	12.6	4.4	1,440	0.65 - 12.0	...	4.53		
2015	118,500	88,200	[3] 7.65	13.1	4.9	1,455	2.15 - 12.0	1.5	4.09		
2016	118,500	88,200	[3] 7.65	13.1	4.9	1,455	2.15 - 12.0	1.5	2.52		
2017	127,200	94,500	[3] 7.65	13.1	4.9	1,545	2.15 - 12.0	1.5	1.62		
2018	128,400	95,400	[3] 7.65	13.1	4.9	1,560	2.15 - 12.0	1.5	1.97		
2019	132,900	98,700	[3] 7.65	13.1	4.9	1,605	2.15 - 12.0	1.5	2.75		
2020	137,700	102,300	[3] 7.65	13.1	4.9	1,655	0.65 - 12.0	...	3.10		
2021	142,800	106,200	[3] 7.65	13.1	4.9	1,710	3.15 - 12.0	2.5	3.15		
2022 and later	[4]	[4]	[3] 7.65	[10]	[10]	[4]	[7]	[7]	[7]		

See footnotes at end of table.

RCAF Unemployment Insurance Tax

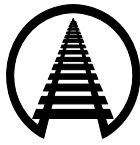
	<u>Unemployment Ins.</u> <u>Tax</u> <u>Rate</u>	<u>Earnings</u> <u>Base</u>	<u>Hourly</u> <u>Earnings</u>	<u>RRB</u> <u>Sample</u> <u>Year</u>	<u>Factor</u> <u>To Update</u> <u>RRB Sample</u>	<u>Avg. Ann.</u> <u>Taxable</u> <u>Earnings</u>	<u>Un. Ins.</u> <u>Hourly</u> <u>Rate</u>
			\$39.887	(2015)			
2016 Avg.	2.73%	\$17,460	\$39.231		0.983554	\$16,664.96	\$0.247
3Q/17 reb.	3.37%	\$18,540	\$39.154		0.981623	\$17,655.72	\$0.323
4Q/17	3.37%	\$18,540	\$39.156		0.981673	\$17,655.75	\$0.323
1Q/18	3.76%	\$18,720	\$40.555		1.016747	\$17,843.78	\$0.364
2Q/18	3.76%	\$18,720	\$40.961		1.026926	\$17,850.31	\$0.364
3Q/18	3.76%	\$18,720	\$42.431		1.063780	\$17,873.30	\$0.365
			\$39.231	(2016)			
2017 Avg.	3.37%	\$18,540	\$39.599		1.009380	\$17,625.49	\$0.319
3Q/18 reb.	3.76%	\$18,720	\$42.946		1.094696	\$17,832.94	\$0.360
4Q/18	3.76%	\$18,720	\$42.976		1.095460	\$17,833.29	\$0.360
1Q/19	3.38%	\$19,260	\$42.805		1.091101	\$18,330.97	\$0.333
2Q/19	3.38%	\$19,260	\$42.756		1.089852	\$18,330.37	\$0.333
3Q/19	3.38%	\$19,260	\$43.306		1.103872	\$18,336.98	\$0.333
			\$39.599	(2017)			
2018 Avg.	3.76%	\$18,720	\$41.687		1.052729	\$17,600.87	\$0.347
3Q/19 reb.	3.38%	\$19,260	\$43.672		1.102856	\$18,120.16	\$0.321
4Q/19	3.38%	\$19,260	\$43.660		1.102553	\$18,119.99	\$0.321
1Q/20	0.99%	\$19,860	\$43.839		1.107073	\$18,666.82	\$0.097
2Q/20	0.99%	\$19,860	\$43.626		1.101694	\$18,663.57	\$0.097
3Q/20	0.99%	\$19,860	\$43.572		1.100331	\$18,662.74	\$0.097
			\$41.687	(2018)			
2019 Avg.	3.38%	\$19,260	\$43.000		1.031497	\$17,742.46	\$0.318
3Q/20 reb.	0.99%	\$19,860	\$43.596		1.045794	\$18,283.51	\$0.096
4Q/20	0.99%	\$19,860	\$43.596		1.045794	\$18,283.51	\$0.096
1Q/21	5.69%	\$20,520	\$43.620		1.046369	\$18,867.16	\$0.569
2Q/21					0.000000		\$0.000
3Q/21					0.000000		\$0.000

Note: Average Annual Taxable Earnings is calculated from the RRB 1% sample data, by multiplying the average annual earnings in the file times the "Factor", and limiting the amount to the earnings base. Thus, the annual hourly earnings used for the calculation of the Factor is for the RRB sample year, and the Factor brings the earnings in the RRB 1% sample file to the current quarter's level.

**Tax Rates and Maximum Taxable Earnings Under Social Security,
Railroad Retirement and Railroad Unemployment Insurance Programs, Continued**

Period	Railroad Retirement					Railroad Unemployment Insurance				Unemployment Repayment	
	Maximum earnings		Tax rate (percent) [5]							Tax [6]	
	base [5]		Tier I	Tier II		Maximum monthly taxable earnings	Employer tax rate [7] (percent)	Surcharge or (pooled credit)	New employer tax rate (percent)	Maximum taxable earnings	Employer tax rate (percent)
	Tier I [9]	Tier II	Employer & employee each	Employer	Employee						
1991	53,400	39,600	7.65	16.1	4.9	765	5.55 - 12.0	...	8.00	765	4.0
1992	55,500	41,400	7.65	16.1	4.9	785	3.10 - 12.0	(3.12)	8.00	785	4.0
1993	57,600	42,900	7.65	16.1	4.9	810	0.65 - 12.0	(5.31)	7.30	810	4.0
1994	60,600	45,000	7.65	16.1	4.9	840	0.65 - 12.0	(0.22)	6.06		
1995	61,200	45,300	7.65	16.1	4.9	850	0.65 - 12.0	...	4.15		
1996	62,700	46,500	7.65	16.1	4.9	865	0.65 - 12.0	...	2.31		
1997	65,400	48,600	7.65	16.1	4.9	890	0.65 - 12.0	...	1.16		
1998	68,400	50,700	7.65	16.1	4.9	925	2.15 - 12.0	1.5	0.85		
1999	72,600	53,700	7.65	16.1	4.9	970	2.15 - 12.0	1.5	0.92		
2000	76,200	56,700	7.65	16.1	4.9	1,005	0.65 - 12.0	...	1.67		
2001	80,400	59,700	7.65	16.1	4.9	1,050	2.15 - 12.0	1.5	2.59		
2002	84,900	63,000	7.65	15.6	4.9	1,100	3.15 - 12.0	2.5	2.71		
2003	87,000	64,500	7.65	14.2	4.9	1,120	3.15 - 12.0	2.5	2.36		
2004	87,900	65,100	7.65	13.1	4.9	1,130	2.15 - 12.0	1.5	2.38		
2005	90,000	66,900	7.65	12.6	4.4	1,150	2.15 - 12.0	1.5	3.43		
2006	94,200	69,900	7.65	12.6	4.4	1,195	2.15 - 12.0	1.5	4.03		
2007	97,500	72,600	7.65	12.1	3.9	1,230	2.15 - 12.0	1.5	3.75		
2008	102,000	75,900	7.65	12.1	3.9	1,280	2.15 - 12.0	1.5	3.02		
2009	106,800	79,200	7.65	12.1	3.9	1,330	2.15 - 12.0	1.5	2.61		
2010	106,800	79,200	7.65	12.1	3.9	1,330	2.15 - 12.0	1.5	2.51		
2011	106,800	79,200	[2] 7.65	12.1	3.9	1,330	3.15 - 12.0	2.5	2.50		
2012	110,100	81,900	[2] 7.65	12.1	3.9	1,365	2.15 - 12.0	1.5	2.65		
2013	113,700	84,300	[3] 7.65	12.6	4.4	1,405	0.65 - 12.0	...	3.69		
2014	117,000	87,000	[3] 7.65	12.6	4.4	1,440	0.65 - 12.0	...	4.53		
2015	118,500	88,200	[3] 7.65	13.1	4.9	1,455	2.15 - 12.0	1.5	4.09		
2016	118,500	88,200	[3] 7.65	13.1	4.9	1,455	2.15 - 12.0	1.5	2.52		
2017	127,200	94,500	[3] 7.65	13.1	4.9	1,545	2.15 - 12.0	1.5	1.62		
2018	128,400	95,400	[3] 7.65	13.1	4.9	1,560	2.15 - 12.0	1.5	1.97		
2019	132,900	98,700	[3] 7.65	13.1	4.9	1,605	2.15 - 12.0	1.5	2.75		
2020	137,700	102,300	[3] 7.65	13.1	4.9	1,655	0.65 - 12.0	...	3.10		
2021	142,800	106,200	[3] 7.65	[10]	[10]	1,710	3.15 - 12.0	2.5	3.15		
2022 and later	[4]	[4]	[3] 7.65	[10]	[10]	[4]	[7]	[7]	[7]		

See footnotes at end of table.



ASSOCIATION OF
AMERICAN RAILROADS

MEMORANDUM

TO: File
FROM: Tiffany Placker
DATE: November 24, 2020
RE: Unemployment Insurance Tax Rate for 2021

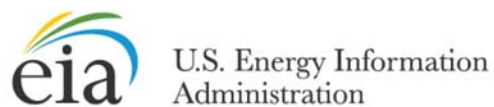
Unemployment Insurance rates for 2021 can range from a minimum of 0.65 percent to a maximum of 12 percent on monthly earnings up to \$1,710. A surcharge of 2.5 percent will be in effect for 2021, meaning the minimum tax rate is effectively 3.15 percent. Sheryl Enders at the Railroad Retirement Board said in her November e-mail that the weighted average 2021 Unemployment Insurance rate for Class I railroads is **5.69 percent** which includes Delaware and Hudson Railway (D&H) and Dakota, Minnesota & Eastern Railroad Corporation (DME).

The MEANS Procedure

Variable	N	Sum	Mean
ANUAL_US	2591	45970708.66	17742.46
QTRLY_US	2591	48884798.66	18867.16

The MEANS Procedure

Variable	N	Sum	Mean
FactorA	2591	2672.61	1.0314970
FactorQ	2591	2711.14	1.0463690
Capa	2591	49902660.00	19260.00
Capq	2591	53167320.00	20520.00



PETROLEUM & OTHER LIQUIDS

OVERVIEW

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ANALYSIS & PROJECTIONS ▾

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Spot Prices

(Crude Oil in Dollars per Barrel, Products in Dollars per Gallon)

Period: Weekly ▾

Product by Area		10/16/20	10/23/20	10/30/20	11/06/20	11/13/20	11/20/20	View History
Crude Oil								
WTI - Cushing, Oklahoma	☐	40.33	40.43	37.32	37.71	40.66	41.52	1986-2020
Brent - Europe	☐	41.32	41.00	37.91	38.64	41.87	43.01	1987-2020
Conventional Gasoline								
New York Harbor, Regular	☐	1.230	1.192	1.116	1.122	1.193	1.189	1986-2020
U.S. Gulf Coast, Regular	☐	1.167	1.132	1.055	1.053	1.124	1.134	1986-2020
RBOB Regular Gasoline								
Los Angeles	☐	1.233	1.235	1.209	1.263	1.298	1.289	2003-2020
No. 2 Heating Oil								
New York Harbor	☐	1.133	1.096	1.055	1.073	1.138	1.173	1986-2020
Ultra-Low-Sulfur No. 2 Diesel Fuel								
New York Harbor	☐	1.183	1.158	1.117	1.144	1.226	1.258	2006-2020
U.S. Gulf Coast	☐	1.134	1.108	1.077	1.119	1.199	1.224	2006-2020
Los Angeles	☐	1.216	1.196	1.227	1.316	1.383	1.335	1996-2020
Kerosene-Type Jet Fuel								
U.S. Gulf Coast	☐	1.076	1.060	1.012	1.050	1.130	1.136	1990-2020
Propane								
Mont Belvieu, Texas	☐	0.531	0.535	0.534	0.557	0.553	0.527	1992-2020

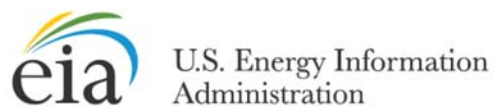
Click on the source key icon to learn how to download series into Excel, or to embed a chart or map on your website.

- = No Data Reported; -- = Not Applicable; **NA** = Not Available; **W** = Withheld to avoid disclosure of individual company data.

Notes: Weekly, monthly, and annual prices are calculated by EIA from daily data by taking an unweighted average of the daily closing spot prices for a given product over the specified time period. See Definitions, Sources, and Notes link above for more information on this table.

Release Date: 11/25/2020

Next Release Date: 12/2/2020



PETROLEUM & OTHER LIQUIDS

OVERVIEW

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Spot Prices

(Crude Oil in Dollars per Barrel, Products in Dollars per Gallon)

Period: Monthly ▾

Product by Area		May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	View History
Crude Oil								
WTI - Cushing, Oklahoma	☐	28.56	38.31	40.71	42.34	39.63	39.40	1986-2020
Brent - Europe	☐	29.38	40.27	43.24	44.74	40.91	40.19	1987-2020
Conventional Gasoline								
New York Harbor, Regular	☐	0.876	1.121	1.220	1.248	1.227	1.201	1986-2020
U.S. Gulf Coast, Regular	☐	0.830	1.095	1.166	1.244	1.176	1.143	1986-2020
RBOB Regular Gasoline								
Los Angeles	☐	1.032	1.301	1.328	1.417	1.299	1.247	2003-2020
No. 2 Heating Oil								
New York Harbor	☐	0.843	1.073	1.187	1.180	1.069	1.099	1986-2020
Ultra-Low-Sulfur No. 2 Diesel Fuel								
New York Harbor	☐	0.887	1.124	1.240	1.226	1.122	1.154	2006-2020
U.S. Gulf Coast	☐	0.838	1.083	1.190	1.196	1.082	1.107	2006-2020
Los Angeles	☐	0.911	1.182	1.262	1.292	1.164	1.211	1996-2020
Kerosene-Type Jet Fuel								
U.S. Gulf Coast	☐	0.686	0.983	1.084	1.112	1.006	1.047	1990-2020
Propane								
Mont Belvieu, Texas	☐	0.417	0.496	0.491	0.506	0.495	0.526	1992-2020

Click on the source key icon to learn how to download series into Excel, or to embed a chart or map on your website.

- = No Data Reported; -- = Not Applicable; **NA** = Not Available; **W** = Withheld to avoid disclosure of individual company data.

Notes: Weekly, monthly, and annual prices are calculated by EIA from daily data by taking an unweighted average of the daily closing spot prices for a given product over the specified time period. See Definitions, Sources, and Notes link above for more information on this table.

Release Date: 11/25/2020

Next Release Date: 12/2/2020

U.S.

Summary by Composition Category

	MS-2019		Prev. Idx	2020Q4		Calculation		Relative of Change
	MS Amount	Weight		Cur Idx		Prev. Idx	Cur Idx	
Forest Products	686,303,392	0.1290	350.45	343.79		45.21	44.35	
Metal Products	3,292,182,021	0.6186	160.80	162.22		99.47	100.35	
Misc. Products	1,343,286,824	0.2524	387.28	409.74		97.75	103.42	
Total	5,321,772,237	1.0000	242.43	248.12				1.0235
Total Linked			243.95	249.68				
'77 = 100 Link Fact.= 1.423			347.14	355.29				
'80 = 100 Link Fact.= 1.061			258.83	264.91				

As info only	Change
Forest Products	-1.90%
Metal Products	0.88%
Misc. Products	5.80%
Total ('80=100)	2.35%
Rounded 80 Indices	2.4%
Rounded 77 Indices	2.4%

Car Hire for RCAF - 2019 Weights

Car Hire Index used in RCAF's All-Inclusive Index (Forecast)

	1980	June 3Q/20	Sept. 4Q/20	Dec. 1Q/21	Mar. 2Q/21	June 3Q/21
RATE						
RR-OWNED TIME	31.00	64.00	65.00	65.00	--	--
RR-OWNED MILEAGE	4.69	6.60	6.60	6.60	--	--
PRIVATELY-OWNED CARS	25.47	59.16	57.15	57.33	--	--
AUTORACKS	47.00	86.93	86.93	87.57	--	--
INDEX						
RR-OWNED TIME	100.0	206.5	209.7	209.7	--	--
RR-OWNED MILEAGE	100.0	140.7	140.7	140.7	--	--
PRIVATELY-OWNED CARS	100.0	232.3	224.4	225.1	--	--
AUTORACKS	100.0	185.0	185.0	186.3	--	--
CAR HIRE INDEX (old wts) 2018	100.0	225.8	--	--	--	--
CAR HIRE INDEX (new wts) 2019	100.0	225.6	218.8	219.4	--	--
CAR HIRE INDEX (LINKED)	100.0	222.6	215.9	216.5	--	--

Note: The Car Hire Index for third quarter using *old weights* and *linked* should match that quarter's filing. The third quarter *new weights* version is used in the fourth quarter linked index calculation to ensure that the transition from old weights to new weights does not impact the linked index.

Note: Indexes are rounded, rates are full float.

Car Hire Data From CHARM

	2020 (first day of month)						2021 (first day of month)							
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Railroad Equipment														
No. of Cars (cars with rates only)														
Superstructures (Vehicular Flats)	11,533	11,511	11,471	11,454	11,286	11,313								
Rate (in cents)														
Superstructures #3 - Auto Rack	96.0	96.0	96.0	96.0	95.0	95.0								
All other #1 - Time	65.0	65.0	65.0	65.0	65.0	65.0								
All other #2 - Mileage	6.6	6.6	6.6	6.6	6.6	6.6								
Private Equipment														
No. of Cars (cars with rates only)														
Superstructures (Vehicular Flats)	54,099	54,029	53,937	53,847	53,774	53,702								
Covered Hoppers	433,856	434,193	434,236	434,187	433,113	433,042								
Tank Cars	423,965	423,766	423,859	424,177	422,993	423,827								
Others	299,225	298,544	297,753	298,033	296,888	295,883								
Rate (in cents)														
Superstructures #1 - Time	86.0	86.0	86.0	86.0	86.0	86.0								
Superstructures #2 - Mileage	1.0	1.0	1.0	1.0	1.0	1.0								
Superstructures #3 - Auto Rack	85.0	85.0	85.0	86.0	86.0	86.0								
Covered Hoppers #2 - Mileage	44.9	44.9	45.0	45.0	45.0	45.0								
Tank Cars #2 - Mileage	99.1	99.1	92.6	92.7	92.8	92.8								
Others #1 -Time	101.0	101.0	101.0	101.0	101.0	102.0								
Others #2 - Mileage	8.4	8.5	8.5	8.5	8.5	8.5								
AVERAGE RATES														
Private Superstructures	21.21	21.21	21.21	21.21	21.21	21.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Private Others	30.82	30.92	30.92	30.92	30.92	31.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Private Total	59.34	59.37	57.15	57.19	57.23	57.33	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Autoracks	86.93	86.93	86.93	87.75	87.56	87.57	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Car Hire Weights	"Old Wts" New Wts"	
	2018	2019
For RCAF & RCR		
RR-owned Time	0.052	0.040
RR-owned Mileage	0.034	0.042
Privately-owned Cars	0.871	0.879
Autoracks	0.043	0.039
----- Check sum	1.000	1.000

Weights for Equipment Rents		
(not used in Car Hire calculation)		
	2018	2019
Car Hire - U.S.	0.591	0.614
Lease Rentals - U.S.	0.409	0.386
----- Check sum	1.000	1.000

Notes:

The Car Hire Index and Lease Rentals Index are weighed together to calculate the Equipment Rents Index

CHARM is the Car Hire Accounting Rate Master

The 4 bold lines are used for the Car Hire Rate. Private Total uses a weighted average of the Covered Hoppers, Tank Cars, Combined Private Superstructures, and Combined Private Others rates.

CHARM Process - Car Hire Rate Report

Average Car Rental Rates for 12/2020

Ownership	Car Group	Car Count	Time Rate (cents/hour)	Mileage Rate (\$/mile)	Auto Rack Rate (cents/hour)
Railroad	Vehicular Flats	11,313	109	0.060	95
Railroad	Number of Zero-Rated Vehicular Flats	114	.	.	.
Railroad	All Other Cars	379,126	65	0.066	.
Railroad	Number of Zero-Rated Other Cars	14,547	.	.	.
Railroad	Total Railroad Equipment	405,100	.	.	.
		.	.	.	.
Private	Vehicular Flats	53,702	86	0.010	86
Private	Number of Zero-Rated Vehicular Flats	40	.	.	.
Private	Covered Hoppers	433,042	0	0.450	.
Private	Number of Zero-Rated Covered Hoppers	15,435	.	.	.
Private	Tanks	423,827	0	0.928	.
Private	Number of Zero-Rated Tanks	16,267	.	.	.
Private	All Other Cars	295,883	102	0.085	.
Private	Number of Zero-Rated Other Cars	23,539	.	.	.
Private	Total Private Equipment	1,261,735	.	.	.

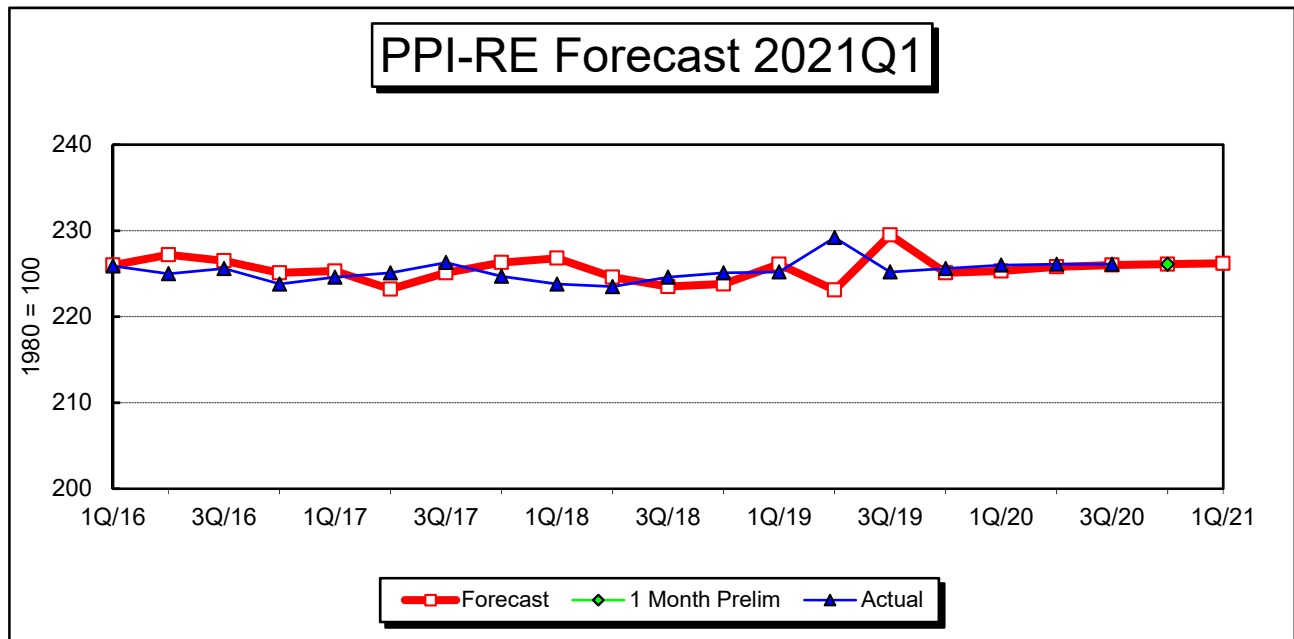
Notes
This report excludes these car types: D (Locomotives), M (MoW, EOTs, etc.), U (Containers), Z (Trailers).
All TTX equipment (including ABOX, RBOX, GONX) is contained in the Private section of report.
Equipment can be zero rated due to owners supplying incorrect or insufficient information to the car accounting process.
Zero-rated equipment includes those with Umler Rate_Indicator of 6 and 0 (zero).
Zero-rated equipment is excluded from the averages shown in this report.
Equipment must be Active in Umler to be included in this report; Pre-registered and Inactive cars are excluded.

PPI-RE Forecast (for Depreciation Component)

	Forecast	Actual	1 Month Prelim
1Q/16	226.0	225.9	
2Q/16	227.2	225	
3Q/16	226.5	225.6	
4Q/16	225.1	223.8	
1Q/17	225.3	224.6	
2Q/17	223.2	225.1	
3Q/17	225.1	226.3	
4Q/17	226.3	224.7	
1Q/18	226.8	223.8	
2Q/18	224.6	223.5	
3Q/18	223.5	224.6	
4Q/18	223.8	225.1	
1Q/19	226.1	225.2	
2Q/19	223.1	229.2	
3Q/19	229.5	225.2	
4Q/19	225.1	225.6	
1Q/20	225.3	226.0	
2Q/20	225.8	226.1	
3Q/20	226.0	226.1	
4Q/20	226.1		226.1
1Q/21	226.2		

1980 Base

	PPI-RE Forecast		Percent Change			
	(82=100)	(80=100)	Yr Ago Actual	Latest Month Actual	2nd Prev Qtr Actual	Previous Forecast
2021Q1						
Low	201.6	223.0	-1.3%			
Midpoint	204.5	226.2	0.1%	0.0%	0.0%	0.0%
High	207.3	229.3	1.5%			



PPI RAILROAD EQUIPMENT

Expert Analysis

Using rule-based logic I have narrowed down the choice to exponential smoothing or Box-Jenkins.
I will perform an out-of-sample test to select between these two approaches.

The cumulative MAD for Exponential smoothing was 0.39 and for Box-Jenkins was 1.14.
The rolling out-of-sample test used a maximum horizon of 12 and generated 78 forecasts for each method.

Based on the lower MAD, I will use Exponential Smoothing.

Model Details

Expert selection

Exponential smoothing: No trend, Additive seasonality
NA(0.673, 0.298)

Component	Smoothing Wgt		Final Value
Level	0.6728		204.3
Seasonal	0.2983		
Seasonal Indexes			
Jan - Mar	-0.06251	0.2702	0.277
Apr - Jun	-0.1902	-0.2178	0.004847
Jul - Sep	0.08234	0.417	-0.09744
Oct - Dec	0.1168	-0.3076	-0.2927

Within-Sample Statistics

Sample size	72	No. parameters	2
Mean	202.98	Std. deviation	1.44
R-square	0.61	Adj. R-square	0.6
Durbin-Watson	1.89	Ljung-Box(18)	15.0 P=0.34
Forecast error	0.91	BIC	0.95
MAPE	0.29	SMAPE	0.29
RMSE	0.9	MAD	0.6
MAD/Mean Ratio	0		

Actual Values for the Most Recent 6 Periods:

Actual

2020-May	204.4
2020-Jun	204.4
2020-Jul	204.4
2020-Aug	204.4
2020-Sep	204.4
2020-Oct	204.4

Forecasted Values

2.5 Lower	Forecast	97.5 Upper	
Date	2.5 Lower	Forecast	97.5 Upper
2020-Nov	202.133	204.003	205.873
2020-Dec	201.764	204.018	206.271
2021-Jan	201.667	204.248	206.829
2021-Feb	201.710	204.581	207.452
2021-Mar	201.453	204.587	207.722
QTR AVG	201.610	204.472	207.334



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PPI Commodity Data

Series Id: WPU144

Not Seasonally Adjusted

Series Title: PPI Commodity data for Transportation equipment-Railroad equipment, not seasonally adjusted

Group: Transportation equipment

Item: Railroad equipment

Base Date: 198200

Download: [xlsx](#)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2019	202.1	203.1	206.5	203.4	203.4	203.4	203.5	203.5	203.7	203.7	203.9	204.0
2020	204.3	204.3	204.3	204.4	204.4	204.4	204.4(P)	204.4(P)	204.4(P)	204.4(P)		

P : Preliminary. All indexes are subject to revision four months after original publication.

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Depreciation

Forecast Report for PPIRE

Description: PPIRE

Expert Analysis

Using rule-based logic I have narrowed down the choice to exponential smoothing or Box-Jenkins.
I will perform an out-of-sample test to select between these two approaches.

The cumulative MAD for Exponential smoothing was 0.39 and for Box-Jenkins was 1.14.
The rolling out-of-sample test used a maximum horizon of 12 and generated 78 forecasts for each method.

Based on the lower MAD, I will use Exponential Smoothing.

Model Details

Expert selection

Exponential smoothing: No trend, Additive seasonality
NA(0.673, 0.298)

Component	Smoothing Wgt		Final Value
Level	0.6728		204.3
Seasonal	0.2983		
Seasonal Indexes			
Jan - Mar	-0.06251	0.2702	0.277
Apr - Jun	-0.1902	-0.2178	0.004847
Jul - Sep	0.08234	0.417	-0.09744
Oct - Dec	0.1168	-0.3076	-0.2927

Within-Sample Statistics

Sample size	72	No. parameters	2
Mean	202.98	Std. deviation	1.44
R-square	0.61	Adj. R-square	0.6
Durbin-Watson	1.89	Ljung-Box(18)	15.0 P=0.34
Forecast error	0.91	BIC	0.95
MAPE	0.29	SMAPE	0.29
RMSE	0.9	MAD	0.6
MAD/Mean Ratio	0		

Historic Data

Date	Historic
2014-Nov	199.9
2014-Dec	199.5
2015-Jan	200.8
2015-Feb	200.5
2015-Mar	199.5
2015-Apr	200.5
2015-May	200
2015-Jun	201.4

Depreciation

2015-Jul	201.6
2015-Aug	202.8
2015-Sep	202.8
2015-Oct	204.4
2015-Nov	203.9
2015-Dec	204.5
2016-Jan	204
2016-Feb	204.2
2016-Mar	203.3
2016-Apr	203
2016-May	203.5
2016-Jun	203.5
2016-Jul	203.5
2016-Aug	204.4
2016-Sep	203.7
2016-Oct	203.7
2016-Nov	201.5
2016-Dec	201.8
2017-Jan	201.9
2017-Feb	204.1
2017-Mar	203.3
2017-Apr	203.4
2017-May	203.5
2017-Jun	204.6
2017-Jul	203.6
2017-Aug	204.5
2017-Sep	203.8
2017-Oct	202.8
2017-Nov	201.7
2017-Dec	201.6
2018-Jan	202.1
2018-Feb	202.1
2018-Mar	202
2018-Apr	202.1
2018-May	202.1
2018-Jun	202.1
2018-Jul	204.1
2018-Aug	204.1
2018-Sep	201.1
2018-Oct	201.3
2018-Nov	201.3
2018-Dec	201.3
2019-Jan	202.1
2019-Feb	203.1
2019-Mar	206.5
2019-Apr	203.4
2019-May	203.4
2019-Jun	203.4
2019-Jul	203.5
2019-Aug	203.5
2019-Sep	203.7

Depreciation

2019-Oct	203.7
2019-Nov	203.9
2019-Dec	204
2020-Jan	204.3
2020-Feb	204.3
2020-Mar	204.3
2020-Apr	204.4
2020-May	204.4
2020-Jun	204.4
2020-Jul	204.4
2020-Aug	204.4
2020-Sep	204.4
2020-Oct	204.4

Forecast Data

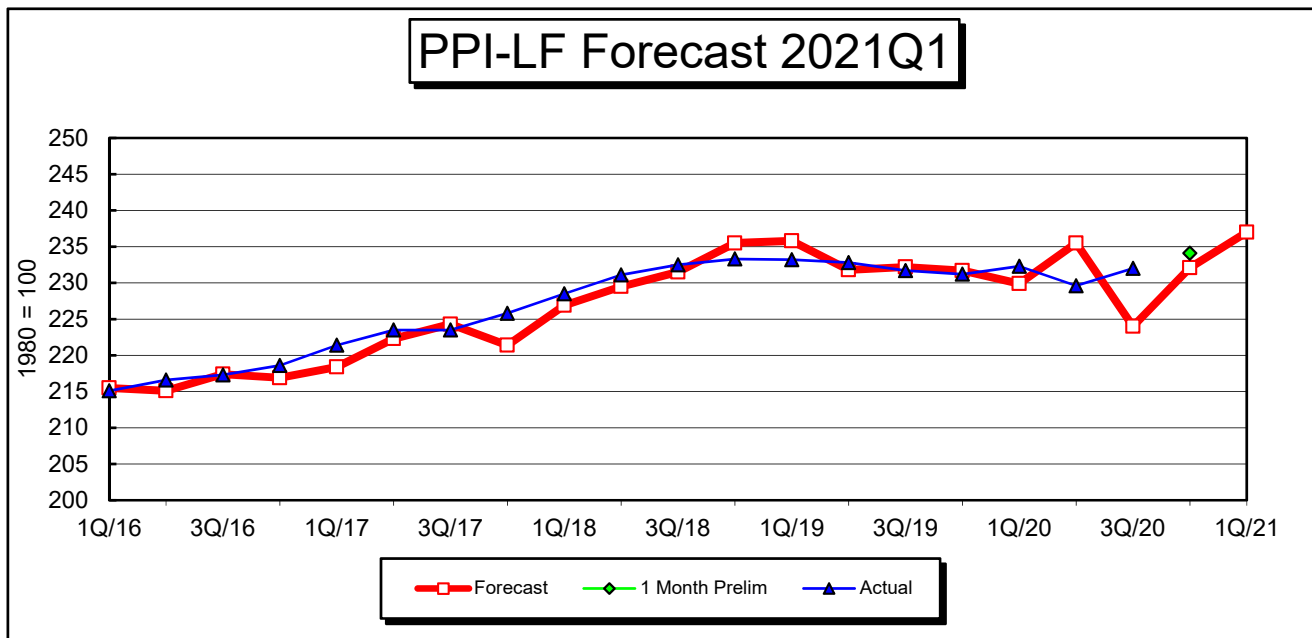
Date	2.5 Lower	Forecast	97.5 Upper
2020-Nov	202.133	204.003	205.873
2020-Dec	201.764	204.018	206.271
2021-Jan	201.667	204.248	206.829
2021-Feb	201.71	204.581	207.452
2021-Mar	201.453	204.587	207.722
2021-Apr	200.743	204.12	207.498
2021-May	200.488	204.093	207.697

PPI-LF Forecast (for Other and Lease Rentals Components)

	Forecast	Actual	1 Month Prelim
1Q/16	215.5	215.1	
2Q/16	215.1	216.6	
3Q/16	217.4	217.3	
4Q/16	216.9	218.6	
1Q/17	218.4	221.4	
2Q/17	222.3	223.5	
3Q/17	224.3	223.5	
4Q/17	221.4	225.8	
1Q/18	226.9	228.5	
2Q/18	229.5	231.1	
3Q/18	231.5	232.5	
4Q/18	235.5	233.3	
1Q/19	235.8	233.2	
2Q/19	231.8	232.8	
3Q/19	232.2	231.7	
4Q/19	231.7	231.2	
1Q/20	229.9	232.3	
2Q/20	235.5	229.6	
3Q/20	224.0	232.0	
4Q/20	232.1		234.1
1Q/21	237.0		

1980 Base

	PPI-LF Forecast		Percent Change			
	(82=100)	(80=100)	Yr Ago Actual	Latest Month Actual	2nd Prev Qtr Actual	Previous Forecast
2021Q1						
Low	208.2	233.4	0.5%			
Midpoint	211.4	237.0	2.0%	1.2%	2.2%	2.1%
High	214.6	240.6	3.6%			



PPI INDUSTRIAL COMMODITIES LESS FUEL AND RELATED PRODUCTS AND POWER

Expert Analysis

Using rule-based logic I have narrowed down the choice to exponential smoothing or Box-Jenkins.
I will perform an out-of-sample test to select between these two approaches.

The cumulative MAD for Exponential smoothing was 2.13 and for Box-Jenkins was 2.29.
The rolling out-of-sample test used a maximum horizon of 12 and generated 78 forecasts for each method.
Based on the lower MAD, I will use Exponential Smoothing.

Model Details

Expert selection

Multiplicative Winters: Linear trend, Multiplicative seasonality

LM(0.944, 0.682, 1.000)

Confidence limits proportional to indexes

Component	Smoothing Wgt		Final Value
Level	0.9436		208.7
Trend	0.6818		0.6701
Seasonal	0.9999		
Seasonal Indexes			
Jan - Mar	1	0.9995	1
Apr - Jun	0.9996	0.9998	1
Jul - Sep	1	0.9999	0.9998
Oct - Dec	1	1.001	0.9995

Within-Sample Statistics

Sample size	72	No. parameters	3
Mean	200.99	Std. deviation	5.99
R-square	0.99	Adj. R-square	0.99
Durbin-Watson	1.7	Ljung-Box(18)	21.2 P=0.73
Forecast error	0.53	BIC	0.57
MAPE	0.19	SMAPE	0.19
RMSE	0.52	MAD	0.38
MAD/Mean Ratio	0		

Actual Values for the Most Recent 6 Periods:

Actual

2020-May	204.4
2020-Jun	205.0
2020-Jul	205.8
2020-Aug	206.5
2020-Sep	208.4
2020-Oct	208.8

Forecasted Values

Date	2.5 Lower	Forecast	97.5 Upper
2020-Nov	208.389	209.502	210.615
2020-Dec	207.863	209.95	212.037
2021-Jan	208.088	210.821	213.555
2021-Feb	208.037	211.291	214.545
2021-Mar	208.397	212.099	215.801
QTR AVG	208.174	211.404	214.634

Other

Forecast Report for PPILF

Description: PPILF

Expert Analysis

Using rule-based logic I have narrowed down the choice to exponential smoothing or Box-Jenkins.
I will perform an out-of-sample test to select between these two approaches.

The cumulative MAD for Exponential smoothing was 2.13 and for Box-Jenkins was 2.29.
The rolling out-of-sample test used a maximum horizon of 12 and generated 78 forecasts for each method.

Based on the lower MAD, I will use Exponential Smoothing.

Model Details

Expert selection

Multiplicative Winters: Linear trend, Multiplicative seasonality

LM(0.944, 0.682, 1.000)

Confidence limits proportional to indexes

Component	Smoothing Wgt		Final Value
Level	0.9436		208.7
Trend	0.6818		0.6701
Seasonal	0.9999		
Seasonal Indexes			
Jan - Mar	1	0.9995	1
Apr - Jun	0.9996	0.9998	1
Jul - Sep	1	0.9999	0.9998
Oct - Dec	1	1.001	0.9995

Within-Sample Statistics

Sample size	72	No. parameters	3
Mean	200.99	Std. deviation	5.99
R-square	0.99	Adj. R-square	0.99
Durbin-Watson	1.7	Ljung-Box(18)	21.2 P=0.73
Forecast error	0.53	BIC	0.57
MAPE	0.19	SMAPE	0.19
RMSE	0.52	MAD	0.38
MAD/Mean Ratio	0		

Historic Data

Date	Historic
2014-Nov	197.4
2014-Dec	196.7
2015-Jan	196
2015-Feb	195.4
2015-Mar	195
2015-Apr	194.8

Other

2015-May	194.9
2015-Jun	195.2
2015-Jul	194.9
2015-Aug	193.9
2015-Sep	193.1
2015-Oct	192.9
2015-Nov	192.3
2015-Dec	191.9
2016-Jan	191.9
2016-Feb	191.8
2016-Mar	192.1
2016-Apr	192.8
2016-May	193.4
2016-Jun	193.7
2016-Jul	193.7
2016-Aug	194
2016-Sep	193.9
2016-Oct	194.3
2016-Nov	194.9
2016-Dec	195.6
2017-Jan	196.8
2017-Feb	197.8
2017-Mar	198.7
2017-Apr	199.3
2017-May	199.2
2017-Jun	199.4
2017-Jul	199.2
2017-Aug	199.7
2017-Sep	200
2017-Oct	200.9
2017-Nov	201.5
2017-Dec	201.7
2018-Jan	203
2018-Feb	203.8
2018-Mar	204.8
2018-Apr	205.4
2018-May	206.3
2018-Jun	207
2018-Jul	207.4
2018-Aug	207.6
2018-Sep	207.9
2018-Oct	208.7
2018-Nov	208.5
2018-Dec	207.8
2019-Jan	208.3
2019-Feb	208.2
2019-Mar	208.4
2019-Apr	208.2
2019-May	207.7
2019-Jun	207.1
2019-Jul	206.9

Other

2019-Aug	206.5
2019-Sep	206.1
2019-Oct	206.5
2019-Nov	206.4
2019-Dec	206.3
2020-Jan	207.2
2020-Feb	207.1
2020-Mar	207.1
2020-Apr	205.2
2020-May	204.4
2020-Jun	205
2020-Jul	205.8
2020-Aug	206.5
2020-Sep	208.4
2020-Oct	208.8

Forecast Data

Date	2.5 Lower	Forecast	97.5 Upper
2020-Nov	208.389	209.502	210.615
2020-Dec	207.863	209.95	212.037
2021-Jan	208.088	210.821	213.555
2021-Feb	208.037	211.291	214.545
2021-Mar	208.397	212.099	215.801



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PPI Commodity Data

Series Id: WPU03T15M05

Not Seasonally Adjusted

Series Title: PPI Commodity data for Industrial commodities less fuels, not seasonally adjusted

Group: Industrial Commodities less fuels

Item: Industrial commodities less fuels

Base Date: 198200

Download: [xlsx](#)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2019	208.3	208.2	208.4	208.2	207.7	207.1	206.9	206.5	206.1	206.5	206.4	206.3
2020	207.2	207.1	207.1	205.2	204.4	205.0	205.8(P)	206.5(P)	208.4(P)	208.8(P)		

P : Preliminary. All indexes are subject to revision four months after original publication.

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Forecast Error Calculation

	2018	Third Quarter 2020		Difference		Notes
		2020Q3	2020Q3	Pt.	Pct.	
	Weight	Forecast	Actual			
Labor	33.0%	442.8	442.8	0.0	0%	* actual=forecast
Fuel	15.9%	142.8	159.7	16.9	12%	from 1st month of quarter
M&S	5.1%	260.7	260.7	0.0	0%	* actual=forecast
Equip Rents	5.3%	235.0	239.5	4.5	2%	from Equipment Rents below
Depreciation	15.0%	226.0	226.1	0.1	0%	PPI-RE
Interest	2.1%	57.2	57.2	0.0	0%	* actual=forecast
Other	23.6%	224.0	232.0	8.0	4%	PPI-LF
Weighted Avg	100.0%					
1980 = 100		282.5	287.4			calculated
1980 = 100 (linked)		263.7	267.2			calculated
4Q17 = 100	2.645	99.7	101.0			calculated
4Q12 = 100	2.976	88.6	89.8			calculated
4Q07 = 100	2.459	107.2	108.7			calculated
4Q02 = 100	1.921	137.3	139.1			calculated
4Q97 = 100	1.732	152.3	154.3			calculated
Forecast Error		1.3				calculated
						0.013 = RCAF adj.
<u>Prior Quarter</u>						
1980 = 100		299.5	280.7 **			
1980 = 100 (linked)		279.6	261.0			
4Q17 = 100		105.7	98.7			calculated
4Q12 = 100		94.0	87.7			calculated
4Q07 = 100		113.7	106.1			calculated
4Q02 = 100		145.5	135.9			calculated
4Q97 = 100		161.4	150.7			calculated
<u>Equipment Rents</u>						
Car Hire	59.1%	222.6	223.5			from Equipment Rents/CHARM
Lease Rentals	40.9%	224.0	232.0			(equals PPI-LF from above)
Weighted Average		223.2	227.0			calculated
Linked		235.0	239.5			calculated
<u>Prior Quarter</u>						
Weighted Average		227.4	225.5 **			
Linked		239.4	237.9			
Sum of Weights	ok					** if fourth quarter, weighted avg for prior needs to use new
Sum of ER Wt.	ok					weights, linked is ok

Factors to change from
1982=100 to 1980 = 100

204.40 204.40 204.40

0.9040

205.80 206.50 208.40

0.8920

RCAF Fuel (Actual All-Inclusive Index)

July 2020

Monthly Report

	July 2020 Price (cents) (1)	1/1/81 Price (cents) (2)	1/91 New Method Linking Factors (3)	July 2020 Index 1/1/81=100 (4)	Linking Factor 1980=100 (5)	July 2020 1980=100 Current Index (6)
U.S.	130.71	89.34	99.415	145.45	1.096	159.41

(4) = (1) / (2) x (3)

(6) = (4) x (5)

Final Actual All-inclusive Index Used for RCAF's Forecast Error Adjustment

	July 2020 1980=100 Current Index	Adjustment Factor	July 2020 1980=100 Linked Index
U.S.	159.41	1.00192	159.72 ←

January	=	Q1
April	=	Q2
July	=	Q3
October	=	Q4

RCAF - Depreciation

Series ID : wpu144

Not Seasonally Adjusted

Group : Transportation equipment

Item : Railroad equipment

		Forecast Year 2021			
		As reported at end of month 82=100			
		Nov.	Feb.	May	Aug.
For Forecast	→	21Q1	21Q2	21Q3	21Q4
For Actual	→	20Q3	20Q4	21Q1	21Q2
January	2020	204.3			
February	2020	204.3			
March	2020	204.3			
April	2020	204.4			
May	2020	204.4			
June	2020	204.4			
July	2020	204.4			
August	2020	204.4			
September	2020	204.4			
October	2020	204.4			
November	2020				
December	2020				
January	2021				
February	2021				
March	2021				
April	2021				
May	2021				
June	2021				
July	2021				
Actual Qtr.		204.4	NA	NA	NA

1980=100

Actual Qtr.	226.1	NA	NA	NA
First Mo. next qtr.	226.1	NA	NA	NA

0.904 =1980



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PPI Commodity Data

Series Id: WPU144

Not Seasonally Adjusted

Series Title: PPI Commodity data for Transportation equipment-Railroad equipment, not seasonally adjusted

Group: Transportation equipment

Item: Railroad equipment

Base Date: 198200

Download: [xlsx](#)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2019	202.1	203.1	206.5	203.4	203.4	203.4	203.5	203.5	203.7	203.7	203.9	204.0
2020	204.3	204.3	204.3	204.4	204.4	204.4	204.4(P)	204.4(P)	204.4(P)	204.4(P)		

P : Preliminary. All indexes are subject to revision four months after original publication.

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RCAF - Other

Series ID : wpu03t15m05

Not Seasonally Adjusted

Group : Industrial Commodities less fuels

Item : Industrial commodities less fuels

		Forecast Year 2021			
		As reported at end of month 82=100			
		Nov.	Feb.	May	Aug.
For Forecast	→	21Q1	21Q2	21Q3	21Q4
For Actual	→	20Q3	20Q4	21Q1	21Q2
January	2020	207.2			
February	2020	207.1			
March	2020	207.1			
April	2020	205.2			
May	2020	204.4			
June	2020	205.0			
July	2020	205.8			
August	2020	206.5			
September	2020	208.4			
October	2020	208.8			
November	2020				
December	2020				
January	2021				
February	2021				
March	2021				
April	2021				
May	2021				
June	2021				
July	2021				
Actual Qtr.		206.9	NA	NA	NA

1980=100

Actual Qtr.	232.0	NA	NA	NA
First Mo. next qtr.	234.1	NA	NA	NA

0.892 =1980



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PPI Commodity Data

Series Id: WPU03T15M05

Not Seasonally Adjusted

Series Title: PPI Commodity data for Industrial commodities less fuels, not seasonally adjusted

Group: Industrial Commodities less fuels

Item: Industrial commodities less fuels

Base Date: 198200

Download: [xlsx](#)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2019	208.3	208.2	208.4	208.2	207.7	207.1	206.9	206.5	206.1	206.5	206.4	206.3
2020	207.2	207.1	207.1	205.2	204.4	205.0	205.8(P)	206.5(P)	208.4(P)	208.8(P)		

P : Preliminary. All indexes are subject to revision four months after original publication.

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Car Hire for RCAF - 2018 Weights

Car Hire Index used in RCAF's All-Inclusive Index (Actual)

		1980	Aug 3Q/19	Nov 4Q/19	Feb 1Q/20	May 2Q/20	Aug 3Q/20
RATE							
RR-OWNED TIME		31.00	65.00	64.00	64.00	65.00	65.00
RR-OWNED MILEAGE		4.69	6.70	6.60	6.60	6.60	6.60
PRIVATELY-OWNED CARS		25.47	59.12	60.50	60.15	59.13	59.37
AUTORACKS		47.00	87.56	88.58	85.10	86.93	86.93
INDEX							
RR-OWNED TIME		100.0	209.7	206.5	206.5	209.7	209.7
RR-OWNED MILEAGE		100.0	142.9	140.7	140.7	140.7	140.7
PRIVATELY-OWNED CARS		100.0	232.1	237.5	236.2	232.2	233.1
AUTORACKS		100.0	186.3	188.5	181.1	185.0	185.0
CAR HIRE INDEX (old wts)	2017	100.0	223.5	--	--	--	--
CAR HIRE INDEX (new wts)	2018	100.0	225.9	230.5	229.0	225.9	226.7
CAR HIRE INDEX (LINKED)		100.0	222.8	227.3	225.8	222.7	223.5

Note: Indexes are rounded, rates are full float.

Car Hire Data From CHARM

	2019 (first day of month)						2020 (first day of month)							
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Railroad Equipment														
No. of Cars (cars with rates only)														
Superstructures (Vehicular Flats)	11,391	11,521	11,621	11,664	11,637	11,621	11,591	11,584	11,584	11,554	11,551	11,534	11,533	11,511
Rate (in cents)														
Superstructures #3 - Auto Rack	93.0	95.0	96.0	96.0	96.0	96.0	95.0	95.0	95.0	95.0	96.0	96.0	96.0	96.0
All other #1 - Time	65.0	65.0	65.0	64.0	64.0	64.0	65.0	64.0	64.0	65.0	65.0	64.0	65.0	65.0
All other #2 - Mileage	6.7	6.7	6.7	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
Private Equipment														
No. of Cars (cars with rates only)														
Superstructures (Vehicular Flats)	55,167	55,067	54,971	54,827	54,762	54,764	54,679	54,675	54,545	54,381	54,273	54,184	54,099	54,029
Covered Hoppers	429,934	429,978	430,640	431,428	431,319	431,271	431,181	431,928	432,117	432,898	433,197	433,596	433,856	434,193
Tank Cars	412,471	413,545	414,888	415,980	417,650	418,946	419,807	420,151	420,683	421,805	422,588	423,336	423,965	423,766
Others	297,834	297,537	298,118	298,567	299,072	299,144	299,807	299,402	299,469	299,904	300,037	299,849	299,225	298,544
Rate (in cents)														
Superstructures #1 - Time	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0
Superstructures #2 - Mileage	1.4	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Superstructures #3 - Auto Rack	85.0	86.0	86.0	86.0	87.0	88.0	82.0	83.0	83.0	84.0	85.0	85.0	85.0	85.0
Covered Hoppers #2 - Mileage	45.6	45.5	45.5	45.6	45.6	45.0	44.5	44.6	44.6	44.6	44.7	44.7	44.9	44.9
Tank Cars #2 - Mileage	98.6	98.7	102.0	102.1	102.3	102.4	102.0	102.1	98.7	98.8	98.9	98.9	99.1	99.1
Others #1 -Time	100.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0
Others #2 - Mileage	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.5
AVERAGE RATES														
Private Superstructures	21.61	21.21	21.21	21.21	21.21	21.21	21.21	21.21	21.21	21.21	21.21	21.21	21.21	21.21
Private Others	30.60	30.82	30.82	30.82	30.82	30.82	30.82	30.82	30.82	30.82	30.82	30.82	30.82	30.92
Private Total	59.04	59.12	60.29	60.38	60.50	60.37	60.07	60.15	58.98	59.04	59.13	59.16	59.34	59.37
Autoracks	86.37	87.56	87.75	87.75	88.58	89.40	84.27	85.10	85.10	85.93	86.93	86.93	86.93	86.93

Car Hire Weights	"Old Wts" New Wts"	
	2017	2018
For RCAF & RCR		
RR-owned Time	0.073	0.052
RR-owned Mileage	0.049	0.034
Privately-owned Cars	0.822	0.871
Autoracks	0.056	0.043
----- Check sum	1.000	1.000

Weights for Equipment Rents		
(not used in Car Hire calculation)		
	2017	2018
Car Hire - U.S.	0.605	0.591
Lease Rentals - U.S.	0.395	0.409
----- Check sum	1.000	1.000

Notes:

The Car Hire Index and Lease Rentals Index are weighed together to calculate the Equipment Rents Index

CHARM is the Car Hire Accounting Rate Master

The 4 bold lines are used for the Car Hire Rate. Private Total uses a weighted average of the Covered Hoppers, Tank Cars, Combined Private Superstructures, and Combined Private Others rates.

CHARM Process - Car Hire Rate Report

Average Car Rental Rates for 08/2020

Ownership	Car Group	Car Count	Time Rate (cents/hour)	Mileage Rate (\$/mile)	Auto Rack Rate (cents/hour)
Railroad	Vehicular Flats	11,511	107	0.060	96
Railroad	Number of Zero-Rated Vehicular Flats	64	.	.	.
Railroad	All Other Cars	384,002	65	0.066	.
Railroad	Number of Zero-Rated Other Cars	15,669	.	.	.
Railroad	Total Railroad Equipment	411,246	.	.	.
		.	.	.	.
Private	Vehicular Flats	54,029	86	0.010	85
Private	Number of Zero-Rated Vehicular Flats	41	.	.	.
Private	Covered Hoppers	434,193	0	0.449	.
Private	Number of Zero-Rated Covered Hoppers	14,470	.	.	.
Private	Tanks	423,766	0	0.991	.
Private	Number of Zero-Rated Tanks	14,803	.	.	.
Private	All Other Cars	298,544	101	0.085	.
Private	Number of Zero-Rated Other Cars	23,333	.	.	.
Private	Total Private Equipment	1,263,179	.	.	.

Notes
This report excludes these car types: D (Locomotives), M (MoW, EOTs, etc.), U (Containers), Z (Trailers).
All TTX equipment (including ABOX, RBOX, GONX) is contained in the Private section of report.
Equipment can be zero rated due to owners supplying incorrect or insufficient information to the car accounting process.
Zero-rated equipment includes those with Umler Rate_Indicator of 6 and 0 (zero).
Zero-rated equipment is excluded from the averages shown in this report.
Equipment must be Active in Umler to be included in this report; Pre-registered and Inactive cars are excluded.

All-Inclusive Index (Actual) - 2018 Weights

	18 Wts	3Q/19 17 Wts	3Q/19 18 Wts	% Chg.	4Q/19 18 Wts	% Chg.	1Q/20 18 Wts	% Chg.	2Q/20 18 Wts	% Chg.	3Q/20 18 Wts	% Chg.
Labor	33.0%	444.7	444.7	0.0%	443.8	-0.2%	443.7	0.0%	441.9	-0.4%	442.8	0.2%
Fuel	15.9%	242.0	242.0	0.0%	248.5	2.7%	238.4	-4.1%	121.7	-49.0%	159.7	31.2%
M&S	5.1%	273.1	273.1	0.0%	322.9	18.2%	267.0	-17.3%	266.7	-0.1%	260.7	-2.2%
Equipment Rents	5.3%	238.9	238.9	0.0%	241.5	1.1%	241.1	-0.2%	237.9	-1.3%	239.5	0.7%
Depreciation	15.0%	225.2	225.2	0.0%	225.6	0.2%	226.0	0.2%	226.1	0.0%	226.1	0.0%
Interest	2.1%	62.4	62.4	0.0%	57.2	-8.3%	57.2	0.0%	57.2	0.0%	57.2	0.0%
Other	23.6%	231.7	231.7	0.0%	231.2	-0.2%	232.3	0.5%	229.6	-1.2%	232.0	1.0%
	1.0000											
Weighted Avg.		305.0	301.6	-1.1%	304.8	1.1%	300.6	-1.4%	280.7	-6.6%	287.4	2.4%
Linked		280.4			283.4	1.1%	279.5	-1.4%	261.0	-6.6%	267.2	2.4%
10/1/80	1.027	273.0			275.9	1.1%	272.2	-1.3%	254.1	-6.6%	260.2	2.4%
10/1/82	1.209	231.9			234.4	1.1%	231.2	-1.4%	215.9	-6.6%	221.0	2.4%
4Q/87	1.322	212.1			214.4	1.1%	211.4	-1.4%	197.4	-6.6%	202.1	2.4%
4Q/92	1.569	178.7			180.6	1.1%	178.1	-1.4%	166.3	-6.6%	170.3	2.4%
4Q/97	1.732	161.9			163.6	1.1%	161.4	-1.3%	150.7	-6.6%	154.3	2.4%
4Q/02	1.921	146.0			147.5	1.0%	145.5	-1.4%	135.9	-6.6%	139.1	2.4%
4Q/07	2.459	114.0			115.3	1.1%	113.7	-1.4%	106.1	-6.7%	108.7	2.5%
4Q/12	2.976	94.2			95.2	1.1%	93.9	-1.4%	87.7	-6.6%	89.8	2.4%
4Q/17	2.645	106.0			107.1	1.0%	105.7	-1.3%	98.7	-6.6%	101.0	2.3%
Equipment Rents												
Car Hire	59.1%	222.8	222.8	0.0%	227.3	2.0%	225.8	-0.7%	222.7	-1.4%	223.5	0.4%
Lease Rentals	40.9%	231.7	231.7	0.0%	231.2	-0.2%	232.3	0.5%	229.6	-1.2%	232.0	1.0%
	1.0000											
ER Weighted Avg		226.3	226.4	0.0%	228.9	1.1%	228.5	-0.2%	225.5	-1.3%	227.0	0.7%
ER Linked		238.9			241.5	1.1%	241.1	-0.2%	237.9	-1.3%	239.5	0.7%