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Senior Vice President - Policy & Economics

December 5, 2019

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 2020 All-Inclusive Index and Rail Cost Adjustment Factor, filed in Ex Parte No. 290 (Sub-No. 5) (2020-1) *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 2020 results and compares to the previous quarter. Both quarters are shown on a 4Q\2017=100 base.

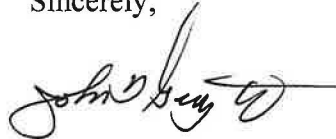
	<u>2019Q4</u>	<u>2020Q1</u>	<u>% Change</u>
All-Inclusive Index	107.7	106.5	-1.1
Preliminary RCAF	1.077	1.065	-1.1
Forecast Error Adjustment	-0.002	-0.022	
RCAF (Unadjusted)	1.075	1.043	-3.0
Productivity Adjustment Factor	2.3677	2.3705	
RCAF (Adjusted)	0.454	0.440	-3.1
PAF-5	2.5160	2.5190	
RCAF-5	0.427	0.414	-3.0

December 5, 2019

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 hand-delivered 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 black ink, appearing to read "John T. Gray", with a stylized flourish extending to the right.

John T. Gray

Attachments

**First Quarter 2020
All-Inclusive Index**

Ex Parte No. 290 (Sub-No. 5) (2020-1)

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

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

December 5, 2019

Table of Contents

Subject	Page
Introduction.	1
Index Weights.	2
All-Inclusive Index - First Quarter 2020	3
Forecast vs. Actual All Inclusive Index - Third Quarter 2019	4
Productivity.	5
Rail Cost Adjustment Factor - First Quarter 2020	6
Appendices	
A Labor	
B Fuel	
C Materials & Supplies	
D Equipment Rents	
E Depreciation	
F Interest	
G Other Expenses	
H Railroad and Union Abbreviations	

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 2020. 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 2018 (current) and 2017 (previous) weights are shown below. Weights calculated from 2017 data were used for the fourth quarter of 2018 through the third quarter of 2019. Beginning with the fourth quarter of 2019, weights calculated using 2018 data are used. The weight for Fuel increased 3 percentage points, and Materials & Supplies' was up 0.2 percentage points. The weight for Interest stayed the same. The remaining component weights all decreased by 0.3 to 1.8 percentage points.

Weights for RCAF's All-Inclusive Index		
	2018	2017
Labor	33.0 %	34.8 %
Fuel	15.9	12.9
Materials & Supplies	5.1	4.9
Equipment Rents	5.3	5.7
Depreciation	15.0	15.7
Interest	2.1	2.1
Other	23.6	23.9
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 2020

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.

		Forecast		
	2018 Weights	Previous 2019Q4	Current 2020Q1	Percent Change
1. Labor	33.0%	443.8	443.7	0.0 %
2. Fuel	15.9%	249.9	250.2	0.1
3. M&S	5.1%	322.9	267.0	-17.3
4. Equipment Rents	5.3%	240.7	240.1	-0.2
5. Depreciation	15.0%	225.1	225.3	0.1
6. Interest	2.1%	57.2	57.2	0.0
7. Other	23.6%	231.7	229.9	-0.8
8. Weighted Average				
a. 1980 = 100		305.1	301.8	
b. 1980 = 100 (linked)		284.8	281.7 ¹	
c. 4Q17 = 100		107.7	106.5 ²	-1.1

¹ Index80 = (Current Index / Previous Index) * the Previous Quarter Linked Index
= (301.8 / 305.1) x 284.8
= 281.7

² To calculate the 4Q17 = 100 index:
Index4Q17 = (Current Linked Index / 4Q17 Basing Factor) * 100
= 281.7 divided by 264.5 times 100
= 106.5

Indexes based on other periods:

4Q12 based index = 281.7 / 297.6 x 100 = 94.7
4Q07 based index = 281.7 / 245.9 x 100 = 114.6
4Q02 based index = 281.7 / 192.1 x 100 = 146.6
4Q97 based index = 281.7 / 173.2 x 100 = 162.6
4Q92 based index = 281.7 / 156.9 x 100 = 179.5

Forecast vs. Actual All-Inclusive Index Third Quarter 2019

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 106.0 is 2.2 index points below the forecast value of 108.2. Therefore, the forecast error adjustment for first quarter 2020 is -2.2 index points.

	2017	Third Quarter 2019		Amt
	Weights	Forecast	Actual	Difference
1. Labor	34.8%	444.7	444.7	
2. Fuel	12.9%	269.0	242.0	
3. M&S	4.9%	273.1	273.1	
4. Equipment Rents ¹	5.7%	238.0	238.9	
5. Depreciation	15.7%	229.5	225.2	
6. Interest	2.1%	62.4	62.4	
7. Other	23.9%	232.2	231.7	
8. Weighted Average				
a. 1980 = 100		309.2	305.0	
b. 1980 = 100 (linked)		286.2	280.4 ²	
c. 4Q17 = 100 ³		108.2	106.0	-2.2

Forecast error —————→ **-2.2 index points**

¹	2017	Third Quarter 2019	
	Weights	Forecast	Actual
Car-Hire	60.5%	221.8	222.8
Lease Rentals	39.5%	232.2	231.7
Weighted Average		225.9	226.3
Weighted Average (linked)		238.0	238.9

² Linked actual index = (actual index / previous actual index) x previous linked actual index.
 280.4 = 305.0 / 306.5 x 281.8

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 March 11, 2019, the Surface Transportation Board served a decision which proposed to adopt 0.5 percent as the geometric average productivity change for the five most recent years available. Their five year rolling geometric average calculation added the year 2017 and removed the year 2012. The components of this average annual value are shown on the following table in ratio format – therefore, 1.005 is the same as an increase of 0.5 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			
2013 - 2017			
Year	Output Index (1)	Input Index (2)	Productivity Changes (3)
2013	1.022	1.018	1.003
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
Average			1.005
Previous Average (2012-2016)			0.996

Calculation of PAF and PAF-5			
For 2013-2017, use fourth root of avg. productivity change = 1.0012			
For 2012-2016, use fourth root of avg. productivity change = 0.9990			
Quarter	Year	PAF	PAF-5
Q1	2019	2.3593	2.5235
Q2	2019	2.3621	2.5210
Q3	2019	2.3649	2.5185
Q4	2019	2.3677	2.5160
Q1	2020	2.3705	2.5190

Rail Cost Adjustment Factor

First Quarter 2020

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 2019Q4	Current 2020Q1	Percent Change
All-Inclusive Index ¹	107.7	106.5	-1.1
Preliminary RCAF ²	1.077	1.065	-1.1
Forecast Error Adjustment ³	<u>-0.002</u>	<u>-0.022</u>	
RCAF (Unadjusted) ⁴	1.075	1.043	-3.0
Productivity Adjustment Factor ⁵	<u>2.3677</u>	<u>2.3705</u>	
RCAF (Adjusted) ⁶	0.454	0.440	-3.1
PAF-5 ⁷	2.5160	2.5190	
RCAF-5 ⁸	0.427	0.414	-3.0

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 2020

The first quarter 2020 Labor Index is 0.02 percent lower than the previous quarter. Because we usually only show one digit after the decimal place, you may see the percentage displayed as 0.0% elsewhere in this filing.

Wage Rate Index

The Wage Rate Index portion of the Labor Index is up 0.4%, as a result of a few non-union wage increases. There were no new labor agreements or national general wage increases this quarter.

Wage Increases: No national agreement wage increases are currently scheduled for the first quarter. Non-union employees were assigned a 3 percent general wage increase in January 2020, following past index procedure. This matches the July 2019 wage increase received by unions that participate in national agreements.

Lump Sums: The first quarter lump sum rate increased 0.4 percent. One amount was fully amortized and removed, but it was replaced by a new amount that was similar to the one removed.

Back Pay: The back pay rate decreased by 12.5 cents (89.3%). One very large amount to account for the National IAM agreement was fully amortized and removed, leaving just three small amounts for other groups.

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 decreased by 0.5 percent.

Labor

First Quarter 2020

Supplements Index

The Supplements Index decreased by 0.6 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. Lower health and welfare rates and a lower unemployment insurance rate caused the decrease this quarter.

Health & Welfare: The Health & Welfare rate is 1.1 percent lower than the previous quarter. Employer premiums (the amount the employer contributes for their employees' insurance) are lower in 2020 for many categories. See pages 4 and 5 of this appendix.

Railroad Retirement: The Railroad Retirement rate increased by 1.4 percent. Taxable wages increased slightly, and the maximum taxable earnings for Railroad Retirement's Tier I and Tier II both increased for 2020. Tax rates for employers did not change. Page 4 of this appendix lists tax rates and maximum taxable earnings for 2018 through 2020.

Unemployment Insurance: The Unemployment Insurance rate fell 22.4 cents (69.8%) because of a new unemployment insurance tax rate effective January 1. The weighted average Class I railroad rate for 2020 is 0.99%, compared to 3.38% for 2019. Basic tax rates range from a minimum of 0.65 percent to a maximum of 12 percent. In 2016 through 2019, there was surcharge applied to the minimum, but there is no surcharge in 2020. Page 4 of this appendix lists tax rates and maximum taxable earnings for 2018 through 2020.

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 7.6 cents higher than last quarter.

Labor Index Calculation

As shown in Table A-1 on the next page, the 0.4 percent increase in the Wage Rate Index and the 0.6 percent decrease in the Supplements Index combined to cause the Labor Index to fall 0.02 percent from the previous quarter. The linked first quarter 2020 Labor index is 443.7, which is 0.8 percent higher than one year ago.

Labor

First Quarter 2020

Table A-1 Labor Index

	2019Q4	2020Q1	Change	
			Percent	Amount
<u>Base Wage</u> – Straight Time & Pay For Time Not Worked	\$44.153	\$44.456	0.7%	\$0.303
Adjustments:				
Lump Sum	0.544	0.546	0.4%	\$0.002
Back Pay	0.140	0.015	-89.3%	-\$0.125
Other	0.205	0.204	-0.5%	-\$0.001
Total Wages	<u>45.042</u>	<u>45.221</u>	0.4%	\$0.179
Health & Welfare Benefits	8.167	8.078	-1.1%	-\$0.089
RR Retirement & Medicare	9.204	9.330	1.4%	\$0.126
Unemployment Insurance	0.321	0.097	-69.8%	-\$0.224
Other	0.149	0.225	51.0%	\$0.076
Total Supplements	<u>\$17.841</u>	<u>\$17.730</u>	-0.6%	-\$0.111
Total Labor (as info only)	\$62.883	\$62.951		
Wage Index¹	385.5	387.0	0.4%	
Supplements Index²	659.3	655.2	-0.6%	
Total labor Index, 2018 Weights ³	464.9	464.8		
Labor Index (linked)⁴	443.8	443.7	0.0%	

¹ 1980 wage rate \$11.685

² 1980 supplements rate \$2.706

³ 2018 weights: wages, supplements 71.0% 29.0%

⁴ 2020Q1 linked Index = 2019Q4 linked x (2020Q1 / 2019Q4)
 = 443.8 x 464.8 / 464.9

Labor

First Quarter 2020

Supplement Comparisons

Health and Welfare Rates

Plan	Railroad Payment Per Employee Per Month				
	2018	2019	2020	Change	
				'18-'19	'19-'20
Group Health & Welfare	\$1,584.71	\$1,607.55	\$1,606.79	1.4%	0.0%
Early Retirement Major Medical	135.96	129.38	114.37	-4.8%	-11.6%
Group Dental	63.67	63.67	63.67	0.0%	0.0%
Group Vision	8.44	8.44	8.44	0.0%	0.0%
Supplemental Sickness					
Maintenance of Way	51.63	44.82	39.94	-13.2%	-10.9%
Shop Crafts	75.48	67.87	61.93	-10.1%	-8.8%
Signalmen	44.34	41.32	38.31	-6.8%	-7.3%
Yardmasters	34.22	45.75	54.00	33.7%	18.0%

Railroad Retirement and Medicare

	Earnings Base			Employer Rate		
	2018	2019	2020	2018	2019	2020
Tier I	\$128,400	\$132,900	\$137,700	6.20%	6.20%	6.20%
Tier II	95,400	98,700	102,300	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		
2018	2019	2020	2018	2019	2020
\$1,560	\$1,605	\$1,655	3.76%	3.38%	0.99%

Labor First Quarter 2020

NATIONAL RAILWAY LABOR CONFERENCE EMPLOYEE BENEFITS DEPARTMENT

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

David B. Marcus
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November 14, 2019

Ms. Tiffany Placker
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, 2020 are as follows:

Railroad Employees National Health & Welfare Plan & National Railway Carriers/United Transportation Union H&W Plan Non-Hospital Road	\$1,606.79
Railroad Employees National Early Retirement Major Medical Benefit Plan Non-Hospital Road	\$ 114.37
Aetna - National Dental Plan	\$ 63.67
Aetna - Supplemental Sickness Plans	
ShopCrafts	\$ 61.93
Signalmen	\$ 38.31
Maintenance of Way	\$ 39.94
Trustmark - Supplemental Sickness Plans Yardmasters	\$ 54.00
EyeMed - National Vision Plan	\$ 8.44

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

Very truly yours,



Susan E. Parks

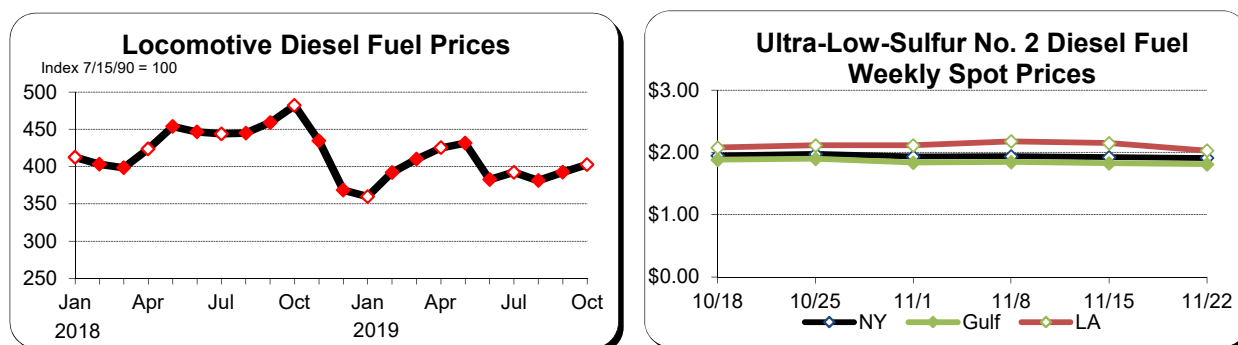
cc: Glen Williams
Clyde Crimmel

Fuel

First Quarter 2020

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 has been rising slightly from August through October. While average prices for locomotive diesel fuel are available only through October 2019, 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 25 for Ultra-Low-Sulfur Diesel Fuel* is about 2.1 percent lower than the average for October. The chart below (on left) shows the AAR's Monthly Locomotive Diesel Fuel Price Index from January 2018 through October 2019. 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 declined slightly in November from October. Railroads that responded to the AAR's forecast survey expect a very small increase by January (Q1) compared to prices that actually occurred for October (Q4). The first quarter 2020 forecast is 0.1 percent higher than the previous quarter forecast, and 0.7% higher than the prior quarter actual.

Forecast Fuel Index (1980 = 100)	250.2
Change from previous quarter forecast	0.1%
Change from previous quarter actual	0.7%

* 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

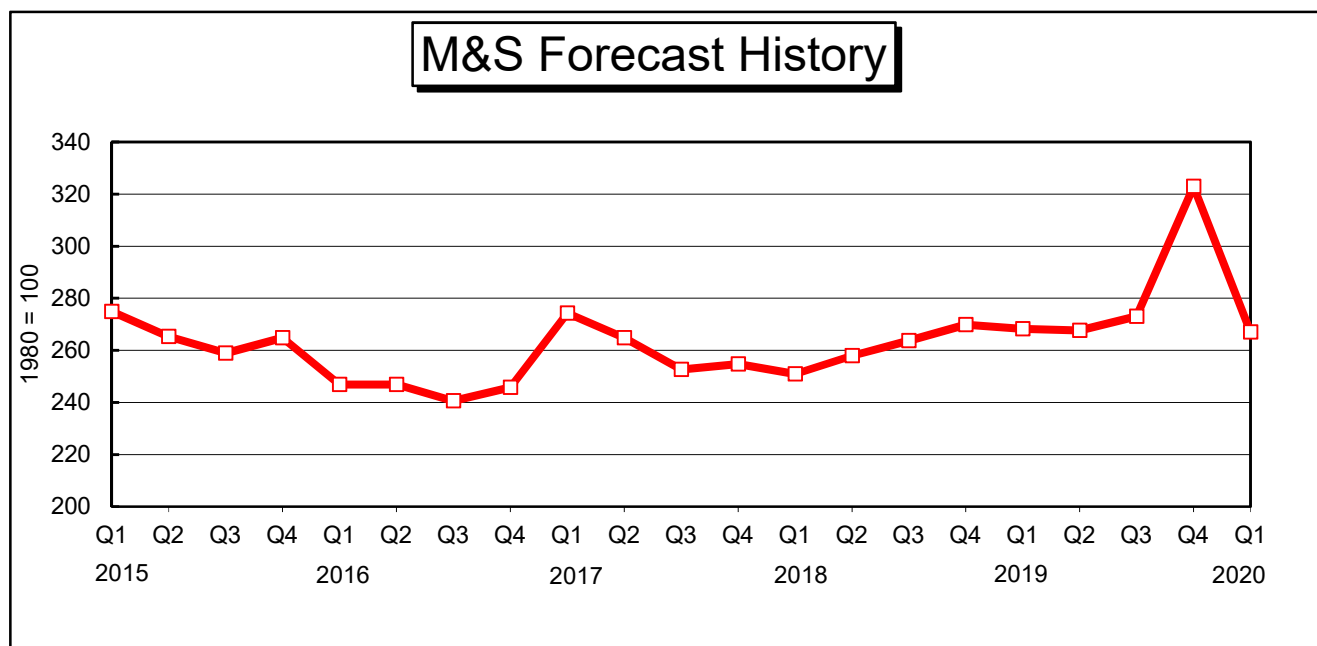
First Quarter 2020

The first quarter 2020 Materials & Supplies Index fell 17.3 percent from the previous quarter. Prices increased for Forest Products but decreased for Miscellaneous Products. It was noted in the prior quarter's STB decision on the 2019Q4 RCAF that there was a large increase in the Materials and Supplies Index due to an increase in ballast prices. In that case, the AAR reviewed the matter and confirmed that proper procedures were followed. Because that was a one-time anomaly, the effect of the increase last quarter has been reversed, leading to a large decrease this quarter.

2020Q1 Materials & Supplies Index = 267.0

2019Q4 Materials & Supplies Index = 322.9

Difference	-55.9 basis points
	or
	-17.3 %



Equipment Rents

First Quarter 2020

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 rose 0.04 percent (rounds to zero). The projected PPI-LF (See Appendix G) used as a proxy for Lease Rentals, fell 0.8 percent. Combined, these changes caused the Equipment Rents Index to fall 0.2 percent.

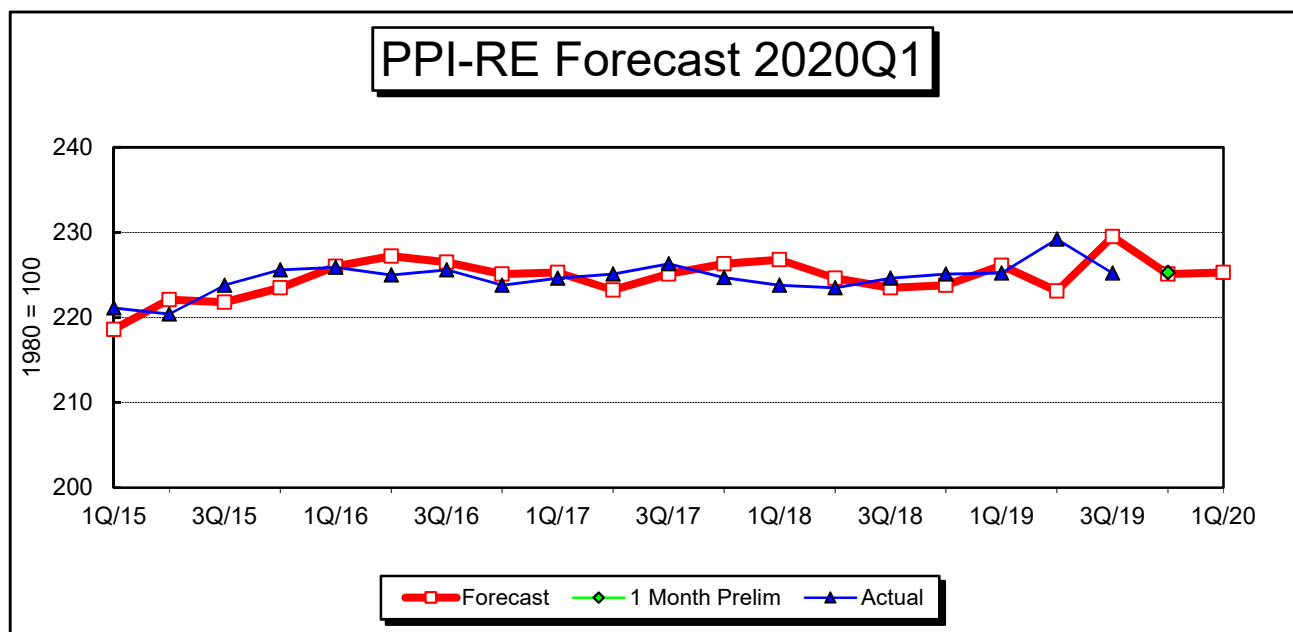
	2018			Percent
	Weight	2019Q4	2020Q1	Change
Car Hire	59.1%	226.7	226.8	0.0 %
Lease Rentals	40.9%	231.7	229.9	-0.8
Weighted Average		228.7	228.1	-0.3
Weighted Average (Linked)		240.7	240.1	-0.2

Depreciation

First Quarter 2020

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 0.1% higher than the previous quarter's forecast, but is equal to the previous quarter's actual.

Forecast of Depreciation Index (1982=100)	203.7
Forecast of Depreciation Index (1980=100)	225.3
Change from previous quarter forecast	0.1%
Change from actual first month of previous quarter	0.0% = 0.00%
Change from same quarter of prior year (actual)	0.0%



Depreciation

First Quarter 2020

PPI RAILROAD EQUIPMENT

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 1.53 and for Box-Jenkins was 1.48.

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 Box-Jenkins.

Model Details

Expert selection

Box-Jenkins

ARIMA(0, 1, 0)

Within-Sample Statistics

Sample size	72	No. parameters	0
Mean	201.78	Std. deviation	2.52
R-square	0.83	Adj. R-square	0.84
Durbin-Watson	2.45	Ljung-Box(18)	21.7 P=0.75
Forecast error	1.02	BIC	1.02
MAPE	0.34	SMAPE	0.34
RMSE	1.02	MAD	0.68
MAD/Mean Ratio	0		

Actual Values for the Most Recent 6 Periods:

Actual

2019-May	203.4
2019-Jun	203.4
2019-Jul	203.5
2019-Aug	203.5
2019-Sep	203.7
2019-Oct	203.7

Forecasted Values

Date	2.5 Lower	Forecast	97.5 Upper
2019-Nov	201.685	203.700	205.715
2019-Dec	200.850	203.700	206.550
2020-Jan	200.210	203.700	207.190
2020-Feb	199.670	203.700	207.730
2020-Mar	199.194	203.700	208.206
QTR AVG	199.691	203.700	207.709

Interest

First Quarter 2020

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 2018 data, and was updated in the Q4 filing submitted on September 5, 2019. The Interest Index based on 2018 decreased to 57.2 from 62.4 in 2017, and is the lowest in recent history. It is close to the 2015 level, which reached 57.5.

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

2018	Interest Rate	4.49%
1980	Interest Rate	7.85%
2020Q1	Interest Index	57.2
2019Q4	Interest Index	57.2
	Percent Change	0.0%

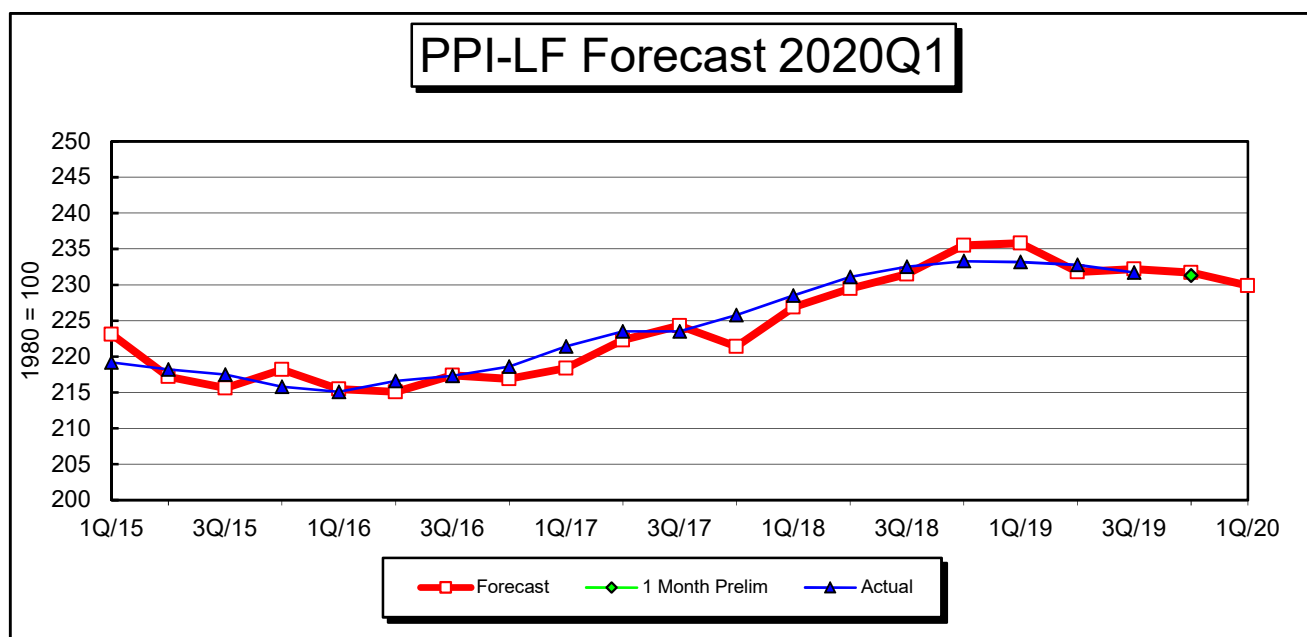
Other Expenses

First Quarter 2020

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 0.8 percent lower than the prior quarter forecast.

Forecast of Other Expense Index (1982=100)	205.1
Forecast of Other Expense Index (1980=100)	229.9
Change from previous quarter forecast	-0.8%
Change from actual first month of previous quarter	-0.6%
Change from same quarter of prior year (actual)	-1.4%



Other Expenses

First Quarter 2020

PPI INDUSTRIAL COMMODITIES LESS FUELS AND RELATED PRODUCTS AND POWER

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 1.78 and for Box-Jenkins was 1.94.
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(0.912, 0.653, 1.000)

Confidence limits proportional to indexes

Component	Smoothing Wgt		Final Value
Level	0.9124		206.1
Trend	0.6531		-0.2637
Seasonal	0.9999		
Seasonal Indexes			
Jan - Mar	1.001	1	0.9998
Apr - Jun	0.9996	0.9995	0.9996
Jul - Sep	1	1	0.9994
Oct - Dec	1.001	1	0.9995

Within-Sample Statistics

Sample size	72	No. parameters	3
Mean	199.48	Std. deviation	5.52
R-square	0.99	Adj. R-square	0.99
Durbin-Watson	1.62	Ljung-Box(18)	26.6 P=0.91
Forecast error	0.42	BIC	0.45
MAPE	0.17	SMAPE	0.17
RMSE	0.41	MAD	0.34
MAD/Mean Ratio	0		

Actual Values for the Most Recent 6 Periods:

Date	Actual
2019-May	207.7
2019-Jun	207.1
2019-Jul	207.3
2019-Aug	206.8
2019-Sep	206.1
2019-Oct	206.3

Forecasted Values

Date	2.5 Lower	Forecast	97.5 Upper
2019-Nov	205.019	205.894	206.769
2019-Dec	203.865	205.447	207.03
2020-Jan	203.439	205.499	207.559
2020-Feb	202.608	205.054	207.501
2020-Mar	201.945	204.724	207.504
QTR AVG	202.664	205.092	207.521

Railroad and Union Abbreviations

First Quarter 2020

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 2020 Q1 RCAF

December 5, 2019

- 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 . 2020/Q1 RCAF Lump Sum Amortization summary, public version (1 page)
- 7 . 2020/Q1 RCAF Back Pay Amortization summary, public version (1 page)
- 8 . Health & Welfare worksheet (1 page)
- 9 . Railroad Retirement spreadsheet (5 pages)
- 10 . 2020 Tax Rates and Maximum Taxable Earnings from Railroad Retirement Board
- 11 . Unemployment Insurance Tax worksheet (1 page)
- 12 . 2-page SAS run for 2020 Q1 Unemployment Insurance Tax
- 13 . Unemployment Insurance Tax Rate for 2020 memo and RRB Maximum Taxable Earnings (2 pages)
- 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 . 5 pages of PPI-RE for Depreciation including graph page, input/output, and BLS source data
- 18 . 5 pages of PPI-LF for Other (and Lease Rentals) incl. graph page, input/output, BLS source data
- 19 . Forecast Error calc. and workpapers (9 pages: calc, fuel, 3 car hire, 2 deprec, 2 other)

RCAF All-Inclusive Index's Labor Index Based on 2018 Benchmarks

	18 Wts.	3Q/19	3Q/19 Rebench As Info Only	% Chg	4Q/19	% Chg	1Q/20	% Chg	2Q/20	% Chg	3Q/20	% Chg
Straight Time		\$36.629	\$36.930	0.8%	\$36.930	0.8%	\$37.224	0.8%		--		--
PFTNW		\$7.143	\$7.223	1.1%	\$7.223	1.1%	\$7.232	0.1%		--		--
Total		\$43.772	\$44.153	0.9%	\$44.153	0.9%	\$44.456	0.7%	\$0.000	--	\$0.000	--
Adjustments												
Lump Sum		\$0.539	\$0.542		\$0.544		\$0.546					
Back Pay		\$0.153	\$0.154		\$0.140		\$0.015					
Other		\$0.204	\$0.205		\$0.205		\$0.204					
Total Wages		\$44.668	\$45.054	0.9%	\$45.042	0.8%	\$45.221	0.4%	\$0.000	--	\$0.000	--
Pre-Tax Reduction		(\$1.362)	(\$1.382)		(\$1.382)		(\$1.382)					
Taxable Wages		\$43.306	\$43.672		\$43.660		\$43.839		\$0.000		\$0.000	
H & W		\$8.302	\$8.167	-1.6%	\$8.167	-1.6%	\$8.078	-1.1%		--		--
RR Ret & Medicare		\$9.202	\$9.206	0.0%	\$9.204	0.0%	\$9.330	1.4%		--		--
Unemp. Insurance		\$0.333	\$0.321	-3.6%	\$0.321	-3.6%	\$0.097	-69.8%		--		--
Other		\$0.303	\$0.305	0.7%	\$0.149	-50.8%	\$0.225	51.0%		--		--
Total		\$18.140	\$17.999	-0.8%	\$17.841	-1.6%	\$17.730	-0.6%	\$0.000	--	\$0.000	--
Adjustments												
Total Supplements		\$18.140	\$17.999	-0.8%	\$17.841	-1.6%	\$17.730	-0.6%	\$0.000	--	\$0.000	--
Total Labor		\$62.808	\$63.053	0.4%	\$62.883	0.1%	\$62.951	0.1%	\$0.000	--	\$0.000	--
Wage Rate Index	0.7100	382.3	385.6	0.9%	385.5	0.8%	387.0	0.4%	0.0	--	0.0	--
Supplements Index	0.2900	670.4	665.2	-0.8%	659.3	-1.7%	655.2	-0.6%	0.0	--	0.0	--
Total Labor Index '17 Wts.		470.2										
Total Labor Index '18 Wts.		465.8	466.7	0.2%	464.9	-0.2%	464.8	0.0%	0.0	--	0.0	--
Labor Index (Linked)		444.7			443.8	-0.2%	443.7	0.0%	0.0	#####	#DIV/0!	--

All Inclusive Index and RCAF using 2018 Benchmarks and Weights

			18 Wts.									
	18 Wts.	3Q/19	3Q/19	% Chg	4Q/19	% Chg	1Q/20	% Chg	2Q/20	% Chg	3Q/20	% Chg
Labor	0.330	444.70	444.7	0.0%	443.8	-0.2%	443.7	0.0%	0.0 #####		#DIV/0!	--
Fuel	0.159	269.00	269.0	0.0%	249.9	-7.1%	250.2	0.1%	--			--
M&S	0.051	273.10	273.1	0.0%	322.9	18.2%	267.0	-17.3%	--			--
Equip. Rents	0.053	238.00	238.0	0.0%	240.7	1.1%	240.1	-0.2%	0.0 #####		#DIV/0!	--
Depreciation	0.150	229.50	229.5	0.0%	225.1	-1.9%	225.3	0.1%	--			--
Interest	0.021	62.40	62.4	0.0%	57.2	-8.3%	57.2	0.0%	57.2	0.0%	57.2	0.0%
Other	0.236	232.20	232.2	0.0%	231.7	-0.2%	229.9	-0.8%	--			--
Weighted Avg.	1.000	309.20	306.6	-0.8%	305.1	-0.5%	301.8	-1.1%	1.2	-99.6%	#DIV/0!	--
Linked		286.20			284.8	-0.5%	281.7	-1.1%	1.1	-99.6%	#DIV/0!	--
	Basing Factor											
10/1/80 basis	102.7	278.7			277.3	-0.5%	274.3	-1.1%	1.1	-99.6%	#DIV/0!	--
10/1/82	120.9	236.7			235.6	-0.5%	233.0	-1.1%	0.9	-99.6%	#DIV/0!	--
4Q/87	132.2	216.5			215.4	-0.5%	213.1	-1.1%	0.8	-99.6%	#DIV/0!	--
4Q/92	156.9	182.4			181.5	-0.5%	179.5	-1.1%	0.7	-99.6%	#DIV/0!	--
4Q/97	173.2	165.2			164.4	-0.5%	162.6	-1.1%	0.6	-99.6%	#DIV/0!	--
4Q/02	192.1	149.0			148.3	-0.5%	146.6	-1.1%	0.6	-99.6%	#DIV/0!	--
4Q/07	245.9	116.4			115.8	-0.5%	114.6	-1.0%	0.4	-99.7%	#DIV/0!	--
4Q/12	297.6	96.2			95.7	-0.5%	94.7	-1.0%	0.4	-99.6%	#DIV/0!	--
4Q/17 basis	264.5	108.2			107.7	-0.5%	106.5	-1.1%	0.4	-99.6%	#DIV/0!	--
Car Hire	0.591	221.80	221.8	0.0%	226.7	2.2%	226.8	0.0%		--		--
Lease Rents	0.409	232.20	232.2	0.0%	231.7	-0.2%	229.9	-0.8%	0.0	--	0.0	--
Weighted Avg Eq Rents		225.90	226.1	0.1%	228.7	1.1%	228.1	-0.3%	0.0	--	0.0	--
Linked Equipment Rents		238.00			240.7	1.1%	240.1	-0.2%	0.0 #####		#DIV/0!	--
Preliminary RCAF		1.082			1.077	-0.46%	1.065	-1.1%	0.004	-99.6%	#DIV/0!	--
Forecast Error Adj.		(0.025)			(0.002)		(0.022)					
RCAF Unadjusted		1.057			1.075	1.70%	1.043	-3.0%	0.004	-99.6%	#DIV/0!	--
PAF		2.3649			2.3677	0.12%	2.3705	0.12%		--		--
RCAF Adjusted		0.447			0.454	1.57%	0.440	-3.1%	#DIV/0!	--	#DIV/0!	--
PAF-5		2.5185			2.5160	-0.10%	2.5190	0.12%		--		--
RCAF-5		0.420			0.427	1.67%	0.414	-3.0%	#DIV/0!	--	#DIV/0!	--

Hourly Rate for 2020 Q1

Straight Time and Time Paid For But Not Worked

2020Q1 Straight Time Hourly Rate (from national spreadsheet)	\$37.130
3% GWI for non-union	

Adjustments to 2018 base:

Added 2019 Q1

Miscellaneous Independents	Non-Union GWI	0.005
Soo Corp.	Non-Union GWI but rounds to zero	0.000

Added 2019 Q2

Miscellaneous Independents	nothing	0.000
Soo Corp.	nothing	0.000

Added 2019 Q3

Miscellaneous Independents	GWIs and one new agreement	0.080
Soo Corp.	new agreements	0.003

Added 2019 Q4

Miscellaneous Independents	3% GWI for non-union	0.006
Soo Corp.	3% GWI for non-union but rounds to zero	0.000

Added 2020 Q1

Miscellaneous Independents
Soo Corp.

Adjusted STHR Total	\$37.224
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Pay For Time Not Worked

PFTNW (from national spreadsheet)		\$7.214
Ratio Adj STHR to Nat STHR	37.224 / 37.130 =	1.00253

Adjusted Pay For Time Not Worked	\$7.232
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Adjusted STHR + Adjusted Pay For Time Not Worked	\$44.456
---	-----------------

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.

National Contracts U.S.

Straight Time Hourly Rate															Check Sum
Weight	UTU	TCU	BLET	SMWIA	BRS	BMWE	TCU-CAF	NCFO	IAM	IBBM	IBEW	ATDA	YDMSTR	OTHER	
	0.24449	0.03049	0.17941	0.00541	0.04706	0.13965	0.05431	0.01429	0.04154	0.00811	0.03429	0.01485	0.01027	0.17583	1.00000
2018 Avg.	30.135	30.582	33.975	31.924	33.683	29.499	32.100	26.348	32.339	29.660	32.109	42.094	42.896	53.146	480.492
12/31/18	30.486	30.952	34.475	32.950	34.103	30.421	32.491	26.675	32.340	30.581	33.137	42.453	43.714	53.146	487.924
1/1/19	30.486	30.952	34.475	32.950	34.103	30.421	32.491	26.675	32.340	30.581	33.137	42.453	43.714	54.474	
4/1/19	30.486	30.952	34.475	32.950	34.103	30.421	32.491	26.675	32.340	30.581	33.137	42.453	43.714	54.474	
7/1/19	31.341	31.859	35.137	33.938	35.109	31.310	33.452	27.471	33.302	31.469	34.120	43.264	44.578	54.474	
10/1/19	31.341	31.859	35.137	33.938	35.109	31.310	33.452	27.471	33.302	31.469	34.120	43.264	44.578	54.474	
1/1/20	31.341	31.859	35.137	33.938	35.109	31.310	33.452	27.471	33.302	31.469	34.120	43.264	44.578	56.108	
4/1/20	31.341	31.859	35.137	33.938	35.109	31.310	33.452	27.471	33.302	31.469	34.120	43.264	44.578	56.108	
7/1/20	31.341	31.859	35.137	33.938	35.109	31.310	33.452	27.471	33.302	31.469	34.120	43.264	44.578	56.108	

Weighted Straight Time Hourly Rate															
	UTU	TCU	BLET	SMWIA	BRS	BMWE	TCU-CAF	NCFO	IAM	IBBM	IBEW	ATDA	YDMSTR	OTHER	Total
2018 Avg.	7.368	0.933	6.096	0.173	1.585	4.120	1.743	0.377	1.343	0.241	1.101	0.625	0.440	9.344	35.488
12/31/18	7.453	0.944	6.185	0.178	1.605	4.248	1.765	0.381	1.343	0.248	1.136	0.630	0.449	9.344	35.911
1/1/19	7.453	0.944	6.185	0.178	1.605	4.248	1.765	0.381	1.343	0.248	1.136	0.630	0.449	9.578	36.145
4/1/19	7.453	0.944	6.185	0.178	1.605	4.248	1.765	0.381	1.343	0.248	1.136	0.630	0.449	9.578	36.145
7/1/19	7.662	0.972	6.304	0.184	1.652	4.373	1.817	0.393	1.383	0.255	1.170	0.642	0.458	9.578	36.842
10/1/19	7.662	0.972	6.304	0.184	1.652	4.373	1.817	0.393	1.383	0.255	1.170	0.642	0.458	9.578	36.842
1/1/20	7.662	0.972	6.304	0.184	1.652	4.373	1.817	0.393	1.383	0.255	1.170	0.642	0.458	9.865	37.130
4/1/20	7.662	0.972	6.304	0.184	1.652	4.373	1.817	0.393	1.383	0.255	1.170	0.642	0.458	9.865	37.130
7/1/20	7.662	0.972	6.304	0.184	1.652	4.373	1.817	0.393	1.383	0.255	1.170	0.642	0.458	9.865	37.130

Note: The 2018 Average and 12/31/18 Straight Time Hourly Rates are the industry rates, and include all Class I railroad employees. The rates for 1/1/19 through 7/1/20 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 2018 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	
2018 Avg.	0.24449	0.03049	0.17941	0.00541	0.04706	0.13965	0.05431	0.01429	0.04154	0.00811	0.03429	0.01485	0.01027	0.17583	1.00000
12/31/18	10.703	4.462	11.190	4.649	6.223	5.080	4.539	3.481	4.957	3.644	4.748	7.222	7.449	1.480	79.827
1/1/19	10.827	4.516	11.354	4.799	6.300	5.239	4.594	3.524	4.957	3.757	4.900	7.284	7.591	1.480	
4/1/19	10.827	4.516	11.354	4.799	6.300	5.239	4.594	3.524	4.957	3.757	4.900	7.284	7.591	1.517	
7/1/19	10.827	4.516	11.354	4.799	6.300	5.239	4.594	3.524	4.957	3.757	4.900	7.284	7.591	1.517	
10/1/19	11.131	4.649	11.572	4.943	6.486	5.392	4.730	3.630	5.105	3.866	5.046	7.423	7.741	1.517	
1/1/20	11.131	4.649	11.572	4.943	6.486	5.392	4.730	3.630	5.105	3.866	5.046	7.423	7.741	1.562	
4/1/20	11.131	4.649	11.572	4.943	6.486	5.392	4.730	3.630	5.105	3.866	5.046	7.423	7.741	1.562	
7/1/20	11.131	4.649	11.572	4.943	6.486	5.392	4.730	3.630	5.105	3.866	5.046	7.423	7.741	1.562	

Pay For Time Not Worked Hourly Rate															
	UTU	TCU	BLET	SMWIA	BRS	BMWE	TCU-CAR	NCFO	IAM	IBBM	IBEW	ATDA	YDMSTR	OTHER	Total
2018 Avg.	2.617	0.136	2.008	0.025	0.293	0.709	0.247	0.050	0.206	0.030	0.163	0.107	0.076	0.260	6.926
12/31/18	2.647	0.138	2.037	0.026	0.296	0.732	0.250	0.050	0.206	0.030	0.168	0.108	0.078	0.260	7.027
1/1/19	2.647	0.138	2.037	0.026	0.296	0.732	0.250	0.050	0.206	0.030	0.168	0.108	0.078	0.267	7.033
4/1/19	2.647	0.138	2.037	0.026	0.296	0.732	0.250	0.050	0.206	0.030	0.168	0.108	0.078	0.267	7.033
7/1/19	2.721	0.142	2.076	0.027	0.305	0.753	0.257	0.052	0.212	0.031	0.173	0.110	0.079	0.267	7.206
10/1/19	2.721	0.142	2.076	0.027	0.305	0.753	0.257	0.052	0.212	0.031	0.173	0.110	0.079	0.267	7.206
1/1/20	2.721	0.142	2.076	0.027	0.305	0.753	0.257	0.052	0.212	0.031	0.173	0.110	0.079	0.275	7.214
4/1/20	2.721	0.142	2.076	0.027	0.305	0.753	0.257	0.052	0.212	0.031	0.173	0.110	0.079	0.275	7.214
7/1/20	2.721	0.142	2.076	0.027	0.305	0.753	0.257	0.052	0.212	0.031	0.173	0.110	0.079	0.275	7.214

U.S. National Contract

UTU

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2018 Industry Avg.				30.13517	10.70276
12/31/18 Industry Rate				30.48602	10.82737
1/1/19			93.469%	30.48602	10.82737
4/1/19			93.469%	30.48602	10.82737
7/1/19	3.00%		93.469%	31.34087	11.13097
10/1/19			93.469%	31.34087	11.13097
1/1/20			93.469%	31.34087	11.13097
4/1/20			93.469%	31.34087	11.13097
7/1/20			93.469%	31.34087	11.13097

TCU

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2018 Industry Avg.				30.58208	4.46244
12/31/18 Industry Rate				30.95175	4.51638
1/1/19			97.758%	30.95175	4.51638
4/1/19			97.758%	30.95175	4.51638
7/1/19	3.00%		97.758%	31.85949	4.64884
10/1/19			97.758%	31.85949	4.64884
1/1/20			97.758%	31.85949	4.64884
4/1/20			97.758%	31.85949	4.64884
7/1/20			97.758%	31.85949	4.64884

BLET

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2018 Industry Avg.				33.97515	11.18960
12/31/18 Industry Rate				34.47547	11.35438
1/1/19			63.977%	34.47547	11.35438
4/1/19			63.977%	34.47547	11.35438
7/1/19	3.00%		63.977%	35.13716	11.57230
10/1/19			63.977%	35.13716	11.57230
1/1/20			63.977%	35.13716	11.57230
4/1/20			63.977%	35.13716	11.57230
7/1/20			63.977%	35.13716	11.57230

U.S. National Contract

SMWIA

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2018 Industry Avg.				31.92371	4.64935
12/31/18 Industry Rate				32.94967	4.79877
1/1/19			100.000%	32.94967	4.79877
4/1/19			100.000%	32.94967	4.79877
7/1/19	3.00%		100.000%	33.93816	4.94274
10/1/19			100.000%	33.93816	4.94274
1/1/20			100.000%	33.93816	4.94274
4/1/20			100.000%	33.93816	4.94274
7/1/20			100.000%	33.93816	4.94274

BRS

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2018 Industry Avg.				33.68276	6.22277
12/31/18 Industry Rate				34.10302	6.30041
1/1/19			98.316%	34.10302	6.30041
4/1/19			98.316%	34.10302	6.30041
7/1/19	3.00%		98.316%	35.10887	6.48624
10/1/19			98.316%	35.10887	6.48624
1/1/20			98.316%	35.10887	6.48624
4/1/20			98.316%	35.10887	6.48624
7/1/20			98.316%	35.10887	6.48624

BMWE

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2018 Industry Avg.				29.49933	5.07980
12/31/18 Industry Rate				30.42113	5.23853
1/1/19			97.438%	30.42113	5.23853
4/1/19			97.438%	30.42113	5.23853
7/1/19	3.00%		97.438%	31.31039	5.39166
10/1/19			97.438%	31.31039	5.39166
1/1/20			97.438%	31.31039	5.39166
4/1/20			97.438%	31.31039	5.39166
7/1/20			97.438%	31.31039	5.39166

U.S. National Contract

TCU-Carmen

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2018 Industry Avg.				32.10002	4.53907
12/31/18 Industry Rate				32.49132	4.59440
1/1/19			98.528%	32.49132	4.59440
4/1/19			98.528%	32.49132	4.59440
7/1/19	3.00%		98.528%	33.45170	4.73021
10/1/19			98.528%	33.45170	4.73021
1/1/20			98.528%	33.45170	4.73021
4/1/20			98.528%	33.45170	4.73021
7/1/20			98.528%	33.45170	4.73021

NCFO

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2018 Industry Avg.				26.34843	3.48125
12/31/18 Industry Rate				26.67508	3.52441
1/1/19			99.402%	26.67508	3.52441
4/1/19			99.402%	26.67508	3.52441
7/1/19	3.00%		99.402%	27.47055	3.62951
10/1/19			99.402%	27.47055	3.62951
1/1/20			99.402%	27.47055	3.62951
4/1/20			99.402%	27.47055	3.62951
7/1/20			99.402%	27.47055	3.62951

IAM

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2018 Industry Avg.				32.33934	4.95706
12/31/18 Industry Rate				32.33983	4.95714
1/1/19			99.146%	32.33983	4.95714
4/1/19			99.146%	32.33983	4.95714
7/1/19	3.00%		99.146%	33.30175	5.10458
10/1/19			99.146%	33.30175	5.10458
1/1/20			99.146%	33.30175	5.10458
4/1/20			99.146%	33.30175	5.10458
7/1/20			99.146%	33.30175	5.10458

U.S. National Contract

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2018 Industry Avg.				29.66028	3.64402
12/31/18 Industry Rate				30.58075	3.75711
1/1/19			96.824%	30.58075	3.75711
4/1/19			96.824%	30.58075	3.75711
7/1/19	3.00%		96.824%	31.46904	3.86624
10/1/19			96.824%	31.46904	3.86624
1/1/20			96.824%	31.46904	3.86624
4/1/20			96.824%	31.46904	3.86624
7/1/20			96.824%	31.46904	3.86624

IBEW

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2018 Industry Avg.				32.10928	4.74834
12/31/18 Industry Rate				33.13696	4.90031
1/1/19			98.880%	33.13696	4.90031
4/1/19			98.880%	33.13696	4.90031
7/1/19	3.00%		98.880%	34.11993	5.04567
10/1/19			98.880%	34.11993	5.04567
1/1/20			98.880%	34.11993	5.04567
4/1/20			98.880%	34.11993	5.04567
7/1/20			98.880%	34.11993	5.04567

ATDA

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2018 Industry Avg.				42.09443	7.22247
12/31/18 Industry Rate				42.45332	7.28405
1/1/19			63.658%	42.45332	7.28405
4/1/19			63.658%	42.45332	7.28405
7/1/19	3.00%		63.658%	43.26406	7.42315
10/1/19			63.658%	43.26406	7.42315
1/1/20			63.658%	43.26406	7.42315
4/1/20			63.658%	43.26406	7.42315
7/1/20			63.658%	43.26406	7.42315

YDMSTRS

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2018 Industry Avg.				42.89594	7.44850
12/31/18 Industry Rate				43.71385	7.59052
1/1/19			65.873%	43.71385	7.59052
4/1/19			65.873%	43.71385	7.59052
7/1/19	3.00%		65.873%	44.57771	7.74053
10/1/19			65.873%	44.57771	7.74053
1/1/20			65.873%	44.57771	7.74053
4/1/20			65.873%	44.57771	7.74053
7/1/20			65.873%	44.57771	7.74053

OTHER

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2018 Industry Avg.				53.14559	1.47970
12/31/18 Industry Rate				53.14559	1.47970
1/1/19	2.50%		100.000%	54.47423	1.51669
4/1/19			100.000%	54.47423	1.51669
7/1/19			100.000%	54.47423	1.51669
10/1/19			100.000%	54.47423	1.51669
1/1/20	3.00%		100.000%	56.10846	1.56219
4/1/20			100.000%	56.10846	1.56219
7/1/20			100.000%	56.10846	1.56219

Check Sums

	Increase	Applicable	ST HR	PFTNW HR
2018 AVG			480.49151	79.82713
12/31/18			487.92375	
		1273.270%		
		ok matches	ok matches	ok matches
			ok matches	

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

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

Austria phil-e	1529.96	Barley, top-quality Mnpls-u	n.a.	Ham's, 17-20 lbs, Mid-US fob-u	0.93
Silver, troy oz.		Bran, wheat middlings, KC-u	121	Hogs, Iowa-So, Minnesota-u	60.29
Engelhard industrial	16.9500	Corn, No. 2 yellow, Cent IL-bp,u	3.6250	Pork bellies, 12-14 lb MidUS-u	1.3754
Engelhard fabricated	20.3400	Corn gluten feed, Midwest-u,w	117.5	Pork loins, 13-19 lb MidUS-u	0.9169
Handy & Harman base	16.9540	Corn gluten meal, Midwest-u,w	387.5	Steers, Tex.-Okla. Choice-u	n.a.
Handy & Harman fabricated	21.1930	Cottonseed meal-u,w	240	Steers, feeder, Okla. City-u,w	153.75
LBMA spot price	*13.3400	Hominy feed, Cent IL-u,w	110		
(U.S.\$ equivalent)	*17.1750	Meat-bonemeal, 50% pro Mnpls-u,w	198		
Coins, wholesale \$1,000 face-a	12454	Oats, No. 2 milling, Mnpls-u	3.2625		
Other metals		Rice, Long Grain Milled, No. 2 AR-u,w	25.25		
LBMA Platinum Price PM	*901.0	Sorghum, (Milo) No. 2 Gulf-u	7.3213		
Platinum, Engelhard industrial	895.0	Soybean Meal, Cent IL, rail, ton48-u	300.30		
Platinum, Engelhard fabricated	995.0	Soybeans, No. 1 yllw IL-bp,u	8.7000		
		Wheat, Spring 14%-pro Mnpls-u	6.9075		

KEY TO CODES: A=ask; B=bid; BP=country elevator bids to producers; C=corrected; E=Manfra, Tordella & Brooks; G=ICE; H=American Commodities Brokerage Co.; M=monthly; N=nominal; n.a.=not quoted or not available; R=SNL Energy; S=Platts-TSI; T=Cotlook Limited; U=USDA; W=weekly; Z=not quoted. *Data as of 11/22
Source: WSJ Market Data Group

Borrowing Benchmarks | wsj.com/bonds

Money Rates

Key annual interest rates paid to borrow or lend money in U.S. and international markets. Rates below are a guide to general levels but don't always represent actual transactions.

Inflation			
	Oct. index level	Chg From Sept. '19	(%) Oct. '18

U.S. consumer price index

All items	257.346	0.23	1.8
Core	265.059	0.20	2.3

International rates

	Latest	Week ago	-52-Week-High	-52-Week-Low
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Prime rates

U.S.	4.75	4.75	5.50	4.75
Canada	3.95	3.95	3.95	3.95
Japan	1.475	1.475	1.475	1.475

Policy Rates

Euro zone	0.00	0.00	0.00	0.00
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	Latest	Week ago	-52-Week-High	-52-Week-Low
Switzerland	0.50	0.50	0.50	0.50
Britain	0.75	0.75	0.75	0.75
Australia	0.75	0.75	1.50	0.75

Overnight repurchase

U.S.	1.50	1.61	3.40	1.50
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U.S. government rates

Discount

	2.25	2.25	3.00	2.25
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Federal funds

Effective rate	1.5700	1.5600	2.4800	1.5600
High	1.6500	1.6000	3.0000	1.6000
Low	1.5000	1.4500	2.4400	1.4000
Bid	1.5200	1.5300	2.4400	1.5200

	Latest	Week ago	-52-Week-High	-52-Week-Low
Offer	1.5400	1.5700	2.5000	1.5400

Treasury bill auction

4 weeks	1.550	1.565	2.470	1.535
13 weeks	1.560	1.540	2.465	1.520
26 weeks	1.580	1.540	2.505	1.535

Secondary market

Fannie Mae

30-year mortgage yields				
30 days	3.288	3.297	4.489	2.871
60 days	3.296	3.309	4.510	2.890

Other short-term rates

	Latest	Week ago	-52-Week-High	-52-Week-Low
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Call money

	3.50	3.50	4.25	3.50
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Commercial paper (AA financial)

90 days	1.79	1.63	2.78	1.63
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Libor

One month	1.69950	1.72363	2.52238	1.69950
Three month	1.91863	1.89850	2.82375	1.89050
Six month	1.91913	1.91888	2.90788	1.89113
One year	1.94175	1.95338	3.13819	1.85313

Euro Libor

One month	-0.503	-0.503	-0.407	-0.522
Three month	-0.442	-0.440	-0.324	-0.482
Six month	-0.398	-0.397	-0.288	-0.474
One year	-0.298	-0.293	-0.159	-0.428

	Latest	Value Traded	-52-Week-High	-52-Week-Low
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DTCC GCF Repo Index

Treasury	1.594	42.270	6.007	1.594
MBS	1.611	83.450	6.699	1.608

Notes on data:

U.S. prime rate is the base rate on corporate loans posted by at least 70% of the 10 largest U.S. banks, and is effective October 31, 2019.
Other prime rates aren't directly comparable; lending practices vary widely by location.
Discount rate is effective October 31, 2019.
DTCC GCF Repo Index is Depository Trust & Clearing Corp.'s weighted average for overnight trades in applicable CUSIPs. Value traded is in billions of U.S. dollars.
Federal funds rates are Tullett Prebon rates as of 5:30 p.m. ET.

Sources: Federal Reserve; Bureau of Labor Statistics; DTCC; FactSet; Tullett Prebon Information, Ltd.

0.000	10	-0.345 ▲			-0.35
0.050	Italy 2	-0.131 ▼			-0.12
3.000	10	1.153 ▼			1.186
0.100	Japan 2	-0.187 ▲			-0.18
0.100	10	-0.086 ▼			-0.08
0.050	Spain 2	-0.374 ▲			-0.38
0.600	10	0.408 ▲			0.407
3.750	U.K. 2	0.521 ▼			0.537
1.625	10	0.699 ▼			0.707

Corporate Debt

Price moves by a company's debt in the credit market that same company's share price.

Investment-grade spreads that tighten

Issuer	Symbol	Coupon (%)	Maturity
General Electric	GE	5.000	Jan. 21, '49
LYB International Finance	LYB	5.250	July 15, '43
Citigroup	C	2.750	April 25, '21
Concho Resources	CXO	3.750	Oct. 1, '27
Hess	HES	5.600	Feb. 15, '43
Morgan Stanley	MS	5.550	July 15, '49
Procter & Gamble	PG	3.100	Aug. 15, '23
Spirit Aerosystems	SPR	4.600	June 15, '28

...And spreads that widened the most

Western Union	WU	6.200	Nov. 17, '36
eBay	EBAY	2.750	Jan. 30, '23
Danone	BNFP	2.589	Nov. 2, '23
Analog Devices	ADI	3.500	Dec. 5, '26
Capital One	COF	2.650	Aug. 8, '22
Cisco Systems	CSCO	3.625	March 4, '24
Mosaic	MOS	4.250	Nov. 15, '23
National Australia Bank	NAB	2.800	Jan. 10, '22

High-yield Issues with the biggest price

Issuer	Symbol	Coupon (%)	Maturity
Mallinckrodt International Finance	MNKL	5.750	Aug. 1, '22
Uniti	UNIT	7.125	Dec. 15, '24
Hovnanian Enterprises	HOV	10.500	July 15, '24
Quad/Graphics	QUAD	7.000	May 1, '22
West Corp	WSTC	8.500	Oct. 15, '25
Teva Pharma III	TEVA	6.750	March 1, '28
Sprint Capital	S	8.750	March 15, '32
Frontier Communications	FTR	6.875	Jan. 15, '25

...And with the biggest price decreases

Envision Healthcare	EVHC	8.750	Oct. 15, '26
MDC Partners	MDZACN	6.500	May 1, '24
Exela Intermediate	EXLINT	10.000	July 15, '23
Lions Gate Capital Holdings	LGF	5.875	Nov. 1, '24
Garda World Security	GWCN	8.750	May 15, '25
Chesapeake Energy	CHK	8.000	Jan. 15, '25
Team Health Holdings	TMH	6.375	Feb. 1, '25
CBL & Associates	CBL	5.950	Dec. 15, '26

*Estimated spread over 2-year, 3-year, 5-year, 10-year or 30-year hot-run Treasuries.
Note: Data are for the most active issue of bonds with maturities of two years

Key Interest Rates

Data are annualized on a 360-day basis. Treasury yields are per annum, on actively traded noninflation and inflation-indexed issues that are adjusted to constant maturities. Data are from weekly Federal Reserve release H.15.

	Week Ended Nov. 22	Week Ended Nov. 15	-52-Week-High	-52-Week-Low
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Federal funds (effective)	1.55	1.55	2.44	1.55
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Commercial paper

Nonfinancial				
1-month	1.60	1.63	2.50	1.60
2-month	1.64	1.61	2.53	1.61
3-month	1.63	n.a.	2.57	1.62

Financial				
1-month	1.59	1.59	2.47	1.59
2-month	1.68	n.a.	2.56	1.68
3-month	1.76	1.72	2.78	1.72

Discount window primary credit	2.25	2.25	3.00	2.25
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Treasury yields at constant maturities

1-month	1.58	1.58	2.48	1.56
3-month	1.57	1.58	2.47	1.55

	Week Ended Nov. 22	Week Ended Nov. 15	-52-Week-High	-52-Week-Low
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6-month	1.58	1.59	2.56	1.58
1-year	1.55	1.56	2.70	1.55
2-year	1.59	1.62	2.82	1.49
3-year	1.58	1.64	2.84	1.42
5-year	1.62	1.68	2.88	1.38
7-year	1.70	1.78	2.97	1.45
10-year	1.77	1.87	3.06	1.50
20-year	2.09	2.19	3.22	1.79

Treasury yields (secondary market)

1-month	1.55	1.55	2.43	1.53
3-month	1.54	1.55	2.41	1.52
6-month	1.54	1.55	2.49	1.54

TIPS

5-year	0.09	0.12	1.12	0.04
7-year	0.11	0.16	1.10	-0.01
10-year	0.15	0.21	1.09	-0.06
20-year	0.35	0.41	1.20	0.12
Long-term avg	0.48	0.56	1.27	0.31

Notes on data:

Federal funds rate is an average for the seven days ended Wednesday, weighted according to rates on broker trades; **Commercial paper rates** are discounted offer rates interpolated from sales by discounted averages of dealer bid rates on nationally traded certificates of deposit; **Discount window primary credit rate** is charged for discounts made and advances extended under the Federal Reserve's primary credit discount window program; **rate** is average for seven days ended Wednesday; **Inflation-indexed long-term TIPS** average is indexed and is based on the unweighted average bid yields for all TIPS with remaining terms to maturity of 10 years or more;

Sources: Federal Reserve; for additional information on these rate data and their derivation, please see, www.federalreserve.gov/releases/h15/data.htm

**RCAF Lump Sum Amortization
2020/Q1**

	Quarter of Payment	Quarter Amortization Began	Amount	Annual Per ST Hour	1 Quarter Per ST Hour	U.S. ST Hours
CSX - BLET 2019	2019Q1	2019Q2				285,497,928
NS - BLET 2018Q4 PPI	2019Q1	2019Q2				285,497,928
NS - BLET 2019 Ave PPI	2019Q1	2019Q2				285,497,928
NS - BLET 2019 TPB	2019Q1	2019Q2				285,497,928
NS - BLET 2019Q1 PPI	2019Q2	2019Q3				285,497,928
NS - BLET 2019Q2 PPI	2019Q3	2019Q4				285,497,928
NS - BLET 2019Q3 PPI	2019Q4	2020Q1				285,497,928
Total			\$153,890,164	0.53902		

Should be slightly less
than amortized amount.

Fell out

NS - BLET 2018Q3 PPI	2018Q4	2019Q1				285,497,928
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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	
2020/Q3	
2020/Q4	
2021/Q1	
2021/Q2	

Lump Sum Adjustment for 2020/Q1	→ 0.545557 or 0.546
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RCAF Back Pay Amortization 2020/Q1

	Quarter of Payment	Quarter Amortization Began	Amount	Annual Per ST Hour	1 Quarter Per ST Hr.	U.S. ST Hours	
DME - all unions 2019	2019Q1	2019Q2				285,497,928	2018
WC BLET	2019Q2	2019Q3				285,497,928	2018
CP Railroads (3 amounts)	2019Q2	2019Q3				285,497,928	2018
Total			\$4,102,233	0.01436870			
Should be slightly less than amortized amount.							
Fell out							
National IAM 2018	2018Q4	2019Q1	\$35,282,327	0.12358173	0.49433	285,497,928	2018

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	
2020/Q3	
2020/Q4	
2021/Q1	
2021/Q2	

Back Pay Adjustment for 2020/Q1

→ **0.01453**

or

0.015

Health and Welfare 2020Q1

	Employees Receiving				
	Pay 2018	Monthly Contribution		Total 2018 Avg.	Total 2020
		2018 Avg.	2020		
1. All Employees					
a. Group health	149,541	\$1,584.71	\$1,606.79	\$236,979,118.11	\$240,280,983.39
b. Group dental	149,541	63.67	63.67	9,521,275.47	9,521,275.47
c. Early retirement major medical	149,541	135.96	114.37	20,331,594.36	17,103,004.17
d. Group vision	149,541	8.44	8.44	1,262,126.04	1,262,126.04
2. Supplemental Sickness					
a. Signalmen	7,106	44.34	38.31	315,080.04	272,230.86
b. Shopcrafts	22,779	75.48	61.93	1,719,358.92	1,410,703.47
c. MOW	22,231	51.63	39.94	1,147,786.53	887,906.14
d. Yardmasters	1,662	34.22	54.00	56,873.64	89,748.00
3. Short-Term Disability					
a. Engineers (CSX, KCS, SOO, UP)	11,604	40.00	40.00	464,160.00	464,160.00
4. Monthly Total Premiums				271,797,373.11	271,292,137.54
5. Monthly Employee Contributions To H&W					
a. National ATDA (BNSF, CSX, KCS, NS, SOO, GTW, WC)	1,656	(\$228.89)	(\$228.89)	(\$379,041.84)	(379,041.84)
b. National BLET (BNSF, CSX, KCS, NS, UP, SOO, DH)	23,971	(\$228.89)	(\$228.89)	(\$5,486,722.19)	(5,486,722.19)
c. National BMWE (All except SOO, DME, DH)	21,655	(\$228.89)	(\$228.89)	(\$4,956,612.95)	(4,956,612.95)
d. National BRS (All except DME)	7,076	(\$228.89)	(\$228.89)	(\$1,619,625.64)	(1,619,625.64)
e. National IAM (BNSF, CSX, KCS, NS, SOO, UP)	6,610	(\$228.89)	(\$228.89)	(\$1,512,962.90)	(1,512,962.90)
f. National IBBM (BNSF, CSX, KCS, NS, SOO, UP, IC)	1,318	(\$228.89)	(\$228.89)	(\$301,677.02)	(301,677.02)
g. National IBEW (All except DME)	5,379	(\$228.89)	(\$228.89)	(\$1,231,199.31)	(1,231,199.31)
h. National NCFO (All except DME and WC)	2,272	(\$228.89)	(\$228.89)	(\$520,038.08)	(520,038.08)
i. National SMW (BNSF, CSX, KCS, NS, UP, IC)	866	(\$228.89)	(\$228.89)	(\$198,218.74)	(198,218.74)
j. National TCU (All except DME and DH)	4,775	(\$228.89)	(\$228.89)	(\$1,092,949.75)	(1,092,949.75)
k. National TCU-CAR (All except DME)	8,539	(\$228.89)	(\$228.89)	(\$1,954,491.71)	(1,954,491.71)
l. National UTU (BNSF, CSX, KCS, NS, UP, SOO, DH)	36,101	(\$228.89)	(\$228.89)	(\$8,263,157.89)	(8,263,157.89)
m. Yardmasters (BNSF, CSX, KCS, NS, UP*, SOO, DH)	1,561	(\$228.89)	(\$228.89)	(\$357,297.29)	(357,297.29)
n. Misc Indep (DME, portions of DH & SOO, portions of CN)	4,125	(\$236.04)	(\$231.78)	(\$973,649.16)	(956,104.71)
Total Major Union	125,904			(\$28,847,644.47)	(\$28,830,100.02)
All Other Employee Contributions*				(\$4,050,907.61)	(\$4,050,907.61)
6. Net Employer Monthly Payments				\$238,898,821.03	\$238,411,129.91
7. Ratio Projected Year to Base Year, Based on Net Monthly Payments					0.99796
8. H&W hourly rate for base year 2018				\$8.095	
9. H&W hourly rate for projected quarter					\$8.078

* Non-union employee contributions net of opt-outs. The \$28,847,644.47 in major union contributions, plus \$4,050,907.61 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
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Susan E. Parks, CEBS
Benefits Administrator
(571) 336-7625
Email: sparks@nmrlc.org

November 14, 2019

Ms. Tiffany Placker
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, 2020 are as follows:

Railroad Employees National Health & Welfare Plan & National Railway Carriers/United Transportation Union H&W Plan Non-Hospital Road	\$1,606.79
Railroad Employees National Early Retirement Major Medical Benefit Plan Non-Hospital Road	\$ 114.37
Aetna - National Dental Plan	\$ 63.67
Aetna - Supplemental Sickness Plans	
ShopCrafts	\$ 61.93
Signalmen	\$ 38.31
Maintenance of Way	\$ 39.94
Trustmark - Supplemental Sickness Plans Yardmasters	\$ 54.00
EyeMed - National Vision Plan	\$ 8.44

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

Very truly yours,



Susan E. Parks

cc: Glen Williams
Clyde Crimmel

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/2020

U.S. ST Hours = 285,497,928
 Wage Statistics are for 2018

Union Group	Employees	Mo. Rate	Annual \$
National ATDA (BNSF, CSX, KCS, NS, SOO, GTW, WC)	1,656	(\$228.89)	(\$4,548,502.08)
National BLET (BNSF, CSX, KCS, NS, UP, SOO, DH)	23,971	(\$228.89)	(\$65,840,666.28)
National BMWE (All except SOO, DME, DH)	21,655	(\$228.89)	(\$59,479,355.40)
National BRS (All except DME)	7,076	(\$228.89)	(\$19,435,507.68)
National IAM (BNSF, CSX, KCS, NS, SOO, UP)	6,610	(\$228.89)	(\$18,155,554.80)
National IBBM (BNSF, CSX, KCS, NS, SOO, UP, IC)	1,318	(\$228.89)	(\$3,620,124.24)
National IBEW (All except DME)	5,379	(\$228.89)	(\$14,774,391.72)
National NCFO (All except DME and WC)	2,272	(\$228.89)	(\$6,240,456.96)
National SMW (BNSF, CSX, KCS, NS, UP, IC)	866	(\$228.89)	(\$2,378,624.88)
National TCU (All except DME and DH)	4,775	(\$228.89)	(\$13,115,397.00)
National TCU-CAR (All except DME)	8,539	(\$228.89)	(\$23,453,900.52)
National UTU (BNSF, CSX, KCS, NS, UP, SOO, DH)	36,101	(\$228.89)	(\$99,157,894.68)
Yardmasters (BNSF, CSX, KCS, NS, UP, SOO, DH)	1,561	(\$228.89)	(\$4,287,567.48)
Misc Indep (DME, portions of DH & SOO, portions of CN)	4,125	(\$231.78)	(\$11,473,256.52)
Total Union	125,904		(\$345,961,200.24)
All Other @ \$4,050,907.61 total per month			(\$48,610,891.32)
Total			(\$394,572,091.56)

Reduction in Wage Rate Per ST Hour	-\$1.38204888
Deduct this amount from the Wage Rate	-\$1.382

Railroad Retirement and Medicare for RCAF

Inputs:

RRB Earnings Distribution Year	2017
Wage Statistics Year	2018
Current Year	2020
Employees Receiving Pay*	149,535

* from 2018 final wage statistics

Tier I Maximum Taxable Earnings for 2020	137,700
Tier II Maximum Taxable Earnings for 2020	102,300
Medicare Maximum Taxable Earnings for 2020	no limit
Tier I Employer Tax Rate for 2020	6.20%
Tier II Employer Tax Rate for 2020	13.10%
Medicare Employer Tax Rate for 2020	1.45%

USA RCAF	Wage Rate	Update Factor	Railroad Retirement Tax	Hourly Rate
2017	\$39.599			
2018	\$41.687	1.05273	\$641,848,453	\$8.823
1Q/2020	\$43.839	1.10707	\$678,730,838	\$9.330
2Q/2020		0.00000	--	\$0.000
3Q/2020		0.00000	--	\$0.000
4Q/2020		0.00000	--	\$0.000

Railroad Retirement & Medicare, U.S.

From 2017 Earnings Distribution			1Q/2020 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	\$31,475	1.660 %	2,482	\$34,845	\$8,711	\$8,711	\$8,711	\$8,711	\$21,623,855	\$21,623,855	\$21,623,855	
41,700 - 43,699	\$42,620	0.519	776	47,183	11,796	11,796	11,796	11,796	9,154,615	9,154,615	9,154,615	
43,700 - 45,699	\$44,998	0.622	930	49,816	12,454	12,454	12,454	12,454	11,583,582	11,583,582	11,583,582	
45,700 - 47,699	\$46,876	0.622	930	51,895	12,974	12,974	12,974	12,974	12,067,025	12,067,025	12,067,025	
47,700 - 49,699	\$48,766	1.349	2,017	53,988	13,497	13,497	13,497	13,497	27,226,284	27,226,284	27,226,284	
49,700 - 51,699	\$50,781	1.400	2,093	56,218	14,055	14,055	14,055	14,055	29,423,110	29,423,110	29,423,110	
51,700 - 53,699	\$52,592	1.452	2,171	58,223	14,556	14,556	14,556	14,556	31,604,257	31,604,257	31,604,257	
53,700 - 55,699	\$54,898	1.660	2,482	60,776	15,194	15,194	15,194	15,194	37,715,850	37,715,850	37,715,850	
55,700 - 57,699	\$56,779	2.645	3,955	62,859	15,715	15,715	15,715	15,715	62,154,518	62,154,518	62,154,518	
57,700 - 59,699	\$58,870	3.423	5,119	65,173	16,293	16,293	16,293	16,293	83,398,880	83,398,880	83,398,880	
59,700 - 61,699	\$60,742	4.720	7,058	67,246	16,811	16,811	16,811	16,811	118,656,182	118,656,182	118,656,182	
61,700 - 63,699	\$62,627	3.942	5,895	69,333	17,333	17,333	17,333	17,333	102,173,322	102,173,322	102,173,322	
63,700 - 65,699	\$64,677	3.786	5,661	71,602	17,901	17,901	17,901	17,901	101,342,068	101,342,068	101,342,068	
65,700 - 67,699	\$66,692	3.942	5,895	73,833	18,458	18,458	18,458	18,458	108,805,198	108,805,198	108,805,198	
67,700 - 69,699	\$68,700	3.060	4,576	76,056	19,014	19,014	19,014	19,014	87,003,645	87,003,645	87,003,645	
69,700 - 71,699	\$70,623	3.683	5,507	78,185	19,546	19,546	19,546	19,546	107,648,297	107,648,297	107,648,297	
71,700 - 73,699	\$72,775	3.008	4,498	80,567	20,142	20,142	20,142	20,142	90,598,150	90,598,150	90,598,150	
73,700 - 75,699	\$74,738	3.008	4,498	82,740	20,685	20,685	20,685	20,685	93,041,904	93,041,904	93,041,904	
75,700 - 77,699	\$76,763	3.890	5,817	84,982	21,246	21,246	21,246	21,246	123,583,595	123,583,595	123,583,595	
77,700 - 79,699	\$78,725	3.164	4,731	87,154	21,789	21,789	21,789	21,789	103,088,075	103,088,075	103,088,075	
79,700 - 81,699	\$80,598	3.579	5,352	89,228	22,307	22,307	22,307	22,307	119,383,759	119,383,759	119,383,759	
81,700 - 83,699	\$82,569	2.697	4,033	91,410	22,852	22,852	22,852	22,852	92,163,138	92,163,138	92,163,138	
83,700 - 85,699	\$84,600	2.334	3,490	93,658	23,415	23,415	23,415	23,415	81,720,403	81,720,403	81,720,403	
85,700 - 87,699	\$86,775	2.905	4,344	96,066	24,017	24,017	24,017	24,017	104,327,798	104,327,798	104,327,798	
87,700 - 89,699	\$88,659	2.282	3,412	98,152	24,538	24,538	24,538	24,538	83,733,212	83,733,212	83,733,212	
89,700 - 91,699	\$90,624	3.164	4,731	100,327	25,082	25,082	25,082	25,082	118,669,465	118,669,465	118,669,465	
91,700 - 93,699	\$92,723	1.712	2,560	102,651	25,663	25,663	25,575	25,663	65,697,753	65,473,003	65,697,753	
93,700 - 95,699	\$94,692	2.178	3,257	104,831	26,208	26,208	25,575	26,208	85,355,291	83,294,509	85,355,291	
95,700 - 97,699	\$96,822	2.178	3,257	107,189	26,797	26,797	25,575	26,797	87,275,272	83,294,509	87,275,272	
97,700 - 99,699	\$98,526	2.127	3,181	109,076	27,269	27,269	25,575	27,269	86,731,653	81,344,087	86,731,653	
99,700 - 101,699	\$100,754	1.971	2,947	111,542	27,886	27,886	25,575	27,886	82,187,961	75,378,089	82,187,961	
101,700 - 103,699	\$102,783	1.660	2,482	113,788	28,447	28,447	25,575	28,447	70,613,650	63,484,337	70,613,650	
103,700 - 105,699	\$104,707	1.608	2,405	115,918	28,980	28,980	25,575	28,980	69,682,070	61,495,671	69,682,070	
105,700 - 107,699	\$106,517	1.452	2,171	117,922	29,481	29,481	25,575	29,481	64,009,558	55,529,673	64,009,558	
107,700 - 109,699	\$108,702	0.519	776	120,341	30,085	30,085	25,575	30,085	23,348,779	19,848,416	23,348,779	
109,700 - 111,699	\$110,815	1.400	2,093	122,680	30,670	30,670	25,575	30,670	64,207,516	53,541,007	64,207,516	
111,700 - 113,699	\$112,625	0.622	930	124,684	31,171	31,171	25,575	31,171	28,992,420	23,787,504	28,992,420	
113,700 - 115,699	\$114,744	1.193	1,784	127,030	31,758	31,758	25,575	31,758	56,653,887	45,624,586	56,653,887	
\$115,700 - over	\$166,017	12.864	19,236	183,793	45,948	34,425	25,575	45,948	<u>662,205,579</u>	<u>491,965,365</u>	<u>883,868,949</u>	
TOTAL	\$87,722	100.000	149,535						Total Taxable Earnings	3,408,851,576	3,165,950,941	3,630,514,946
									Employer Tax Rate	6.20%	13.10%	1.45%
									Quarterly Payment	\$211,348,798	\$414,739,573	\$52,642,467
Total Tier I, Tier II, and Medicare Paid this Quarter											\$678,730,838	

Railroad Retirement & Medicare, U.S.

From 2017 Earnings Distribution			2Q/2020 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	\$31,475	1.660 %	2,482	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
41,700 - 43,699	\$42,620	0.519	776	0	0	0	0	0	0	0	0	0
43,700 - 45,699	\$44,998	0.622	930	0	0	0	0	0	0	0	0	0
45,700 - 47,699	\$46,876	0.622	930	0	0	0	0	0	0	0	0	0
47,700 - 49,699	\$48,766	1.349	2,017	0	0	0	0	0	0	0	0	0
49,700 - 51,699	\$50,781	1.400	2,093	0	0	0	0	0	0	0	0	0
51,700 - 53,699	\$52,592	1.452	2,171	0	0	0	0	0	0	0	0	0
53,700 - 55,699	\$54,898	1.660	2,482	0	0	0	0	0	0	0	0	0
55,700 - 57,699	\$56,779	2.645	3,955	0	0	0	0	0	0	0	0	0
57,700 - 59,699	\$58,870	3.423	5,119	0	0	0	0	0	0	0	0	0
59,700 - 61,699	\$60,742	4.720	7,058	0	0	0	0	0	0	0	0	0
61,700 - 63,699	\$62,627	3.942	5,895	0	0	0	0	0	0	0	0	0
63,700 - 65,699	\$64,677	3.786	5,661	0	0	0	0	0	0	0	0	0
65,700 - 67,699	\$66,692	3.942	5,895	0	0	0	0	0	0	0	0	0
67,700 - 69,699	\$68,700	3.060	4,576	0	0	0	0	0	0	0	0	0
69,700 - 71,699	\$70,623	3.683	5,507	0	0	0	0	0	0	0	0	0
71,700 - 73,699	\$72,775	3.008	4,498	0	0	0	0	0	0	0	0	0
73,700 - 75,699	\$74,738	3.008	4,498	0	0	0	0	0	0	0	0	0
75,700 - 77,699	\$76,763	3.890	5,817	0	0	0	0	0	0	0	0	0
77,700 - 79,699	\$78,725	3.164	4,731	0	0	0	0	0	0	0	0	0
79,700 - 81,699	\$80,598	3.579	5,352	0	0	0	0	0	0	0	0	0
81,700 - 83,699	\$82,569	2.697	4,033	0	0	0	0	0	0	0	0	0
83,700 - 85,699	\$84,600	2.334	3,490	0	0	0	0	0	0	0	0	0
85,700 - 87,699	\$86,775	2.905	4,344	0	0	0	0	0	0	0	0	0
87,700 - 89,699	\$88,659	2.282	3,412	0	0	0	0	0	0	0	0	0
89,700 - 91,699	\$90,624	3.164	4,731	0	0	0	0	0	0	0	0	0
91,700 - 93,699	\$92,723	1.712	2,560	0	0	0	88	0	0	224,751	0	0
93,700 - 95,699	\$94,692	2.178	3,257	0	0	0	633	0	0	2,060,782	0	0
95,700 - 97,699	\$96,822	2.178	3,257	0	0	0	1,222	0	0	3,980,762	0	0
97,700 - 99,699	\$98,526	2.127	3,181	0	0	0	1,694	0	0	5,387,567	0	0
99,700 - 101,699	\$100,754	1.971	2,947	0	0	0	2,311	0	0	6,809,872	0	0
101,700 - 103,699	\$102,783	1.660	2,482	0	0	0	2,872	0	0	7,129,314	0	0
103,700 - 105,699	\$104,707	1.608	2,405	0	0	0	3,405	0	0	8,186,400	0	0
105,700 - 107,699	\$106,517	1.452	2,171	0	0	0	3,906	0	0	8,479,885	0	0
107,700 - 109,699	\$108,702	0.519	776	0	0	0	4,510	0	0	3,500,363	0	0
109,700 - 111,699	\$110,815	1.400	2,093	0	0	0	5,095	0	0	10,666,510	0	0
111,700 - 113,699	\$112,625	0.622	930	0	0	0	5,596	0	0	5,204,916	0	0
113,700 - 115,699	\$114,744	1.193	1,784	0	0	0	6,183	0	0	11,029,301	0	0
\$115,700 - over	\$166,017	12.864	19,236	0	0	11,523	20,373	0	221,663,370	391,903,584	0	0
TOTAL		100.000	149,535						221,663,370	464,564,006	0	0
Employer Tax Rate									6.20%	13.10%	1.45%	
Quarterly Payment									\$13,743,129	\$60,857,885	\$0	

Total Tier I, Tier II, and Medicare Paid this Quarter

\$74,601,014

Railroad Retirement & Medicare, U.S.

From 2017 Earnings Distribution			3Q/2020 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	\$31,475	1.660 %	2,482	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
41,700 - 43,699	\$42,620	0.519	776	0	0	0	0	0	0	0	0	0
43,700 - 45,699	\$44,998	0.622	930	0	0	0	0	0	0	0	0	0
45,700 - 47,699	\$46,876	0.622	930	0	0	0	0	0	0	0	0	0
47,700 - 49,699	\$48,766	1.349	2,017	0	0	0	0	0	0	0	0	0
49,700 - 51,699	\$50,781	1.400	2,093	0	0	0	0	0	0	0	0	0
51,700 - 53,699	\$52,592	1.452	2,171	0	0	0	0	0	0	0	0	0
53,700 - 55,699	\$54,898	1.660	2,482	0	0	0	0	0	0	0	0	0
55,700 - 57,699	\$56,779	2.645	3,955	0	0	0	0	0	0	0	0	0
57,700 - 59,699	\$58,870	3.423	5,119	0	0	0	0	0	0	0	0	0
59,700 - 61,699	\$60,742	4.720	7,058	0	0	0	0	0	0	0	0	0
61,700 - 63,699	\$62,627	3.942	5,895	0	0	0	0	0	0	0	0	0
63,700 - 65,699	\$64,677	3.786	5,661	0	0	0	0	0	0	0	0	0
65,700 - 67,699	\$66,692	3.942	5,895	0	0	0	0	0	0	0	0	0
67,700 - 69,699	\$68,700	3.060	4,576	0	0	0	0	0	0	0	0	0
69,700 - 71,699	\$70,623	3.683	5,507	0	0	0	0	0	0	0	0	0
71,700 - 73,699	\$72,775	3.008	4,498	0	0	0	0	0	0	0	0	0
73,700 - 75,699	\$74,738	3.008	4,498	0	0	0	0	0	0	0	0	0
75,700 - 77,699	\$76,763	3.890	5,817	0	0	0	0	0	0	0	0	0
77,700 - 79,699	\$78,725	3.164	4,731	0	0	0	0	0	0	0	0	0
79,700 - 81,699	\$80,598	3.579	5,352	0	0	0	0	0	0	0	0	0
81,700 - 83,699	\$82,569	2.697	4,033	0	0	0	0	0	0	0	0	0
83,700 - 85,699	\$84,600	2.334	3,490	0	0	0	0	0	0	0	0	0
85,700 - 87,699	\$86,775	2.905	4,344	0	0	0	0	0	0	0	0	0
87,700 - 89,699	\$88,659	2.282	3,412	0	0	0	0	0	0	0	0	0
89,700 - 91,699	\$90,624	3.164	4,731	0	0	0	0	0	0	0	0	0
91,700 - 93,699	\$92,723	1.712	2,560	0	0	0	0	0	0	0	0	0
93,700 - 95,699	\$94,692	2.178	3,257	0	0	0	0	0	0	0	0	0
95,700 - 97,699	\$96,822	2.178	3,257	0	0	0	0	0	0	0	0	0
97,700 - 99,699	\$98,526	2.127	3,181	0	0	0	0	0	0	0	0	0
99,700 - 101,699	\$100,754	1.971	2,947	0	0	0	0	0	0	0	0	0
101,700 - 103,699	\$102,783	1.660	2,482	0	0	0	0	0	0	0	0	0
103,700 - 105,699	\$104,707	1.608	2,405	0	0	0	0	0	0	0	0	0
105,700 - 107,699	\$106,517	1.452	2,171	0	0	0	0	0	0	0	0	0
107,700 - 109,699	\$108,702	0.519	776	0	0	0	0	0	0	0	0	0
109,700 - 111,699	\$110,815	1.400	2,093	0	0	0	0	0	0	0	0	0
111,700 - 113,699	\$112,625	0.622	930	0	0	0	0	0	0	0	0	0
113,700 - 115,699	\$114,744	1.193	1,784	0	0	0	0	0	0	0	0	0
\$115,700 - over	\$166,017	12.864	19,236	0	0	0	0	0	0	0	0	0
TOTAL		100.000	149,535						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 2017 Earnings Distribution			4Q/2020 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	\$31,475	1.660	2,482	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
41,700 - 43,699	\$42,620	0.519	776	0	0	0	0	0	0	0	0	0
43,700 - 45,699	\$44,998	0.622	930	0	0	0	0	0	0	0	0	0
45,700 - 47,699	\$46,876	0.622	930	0	0	0	0	0	0	0	0	0
47,700 - 49,699	\$48,766	1.349	2,017	0	0	0	0	0	0	0	0	0
49,700 - 51,699	\$50,781	1.400	2,093	0	0	0	0	0	0	0	0	0
51,700 - 53,699	\$52,592	1.452	2,171	0	0	0	0	0	0	0	0	0
53,700 - 55,699	\$54,898	1.660	2,482	0	0	0	0	0	0	0	0	0
55,700 - 57,699	\$56,779	2.645	3,955	0	0	0	0	0	0	0	0	0
57,700 - 59,699	\$58,870	3.423	5,119	0	0	0	0	0	0	0	0	0
59,700 - 61,699	\$60,742	4.720	7,058	0	0	0	0	0	0	0	0	0
61,700 - 63,699	\$62,627	3.942	5,895	0	0	0	0	0	0	0	0	0
63,700 - 65,699	\$64,677	3.786	5,661	0	0	0	0	0	0	0	0	0
65,700 - 67,699	\$66,692	3.942	5,895	0	0	0	0	0	0	0	0	0
67,700 - 69,699	\$68,700	3.060	4,576	0	0	0	0	0	0	0	0	0
69,700 - 71,699	\$70,623	3.683	5,507	0	0	0	0	0	0	0	0	0
71,700 - 73,699	\$72,775	3.008	4,498	0	0	0	0	0	0	0	0	0
73,700 - 75,699	\$74,738	3.008	4,498	0	0	0	0	0	0	0	0	0
75,700 - 77,699	\$76,763	3.890	5,817	0	0	0	0	0	0	0	0	0
77,700 - 79,699	\$78,725	3.164	4,731	0	0	0	0	0	0	0	0	0
79,700 - 81,699	\$80,598	3.579	5,352	0	0	0	0	0	0	0	0	0
81,700 - 83,699	\$82,569	2.697	4,033	0	0	0	0	0	0	0	0	0
83,700 - 85,699	\$84,600	2.334	3,490	0	0	0	0	0	0	0	0	0
85,700 - 87,699	\$86,775	2.905	4,344	0	0	0	0	0	0	0	0	0
87,700 - 89,699	\$88,659	2.282	3,412	0	0	0	0	0	0	0	0	0
89,700 - 91,699	\$90,624	3.164	4,731	0	0	0	0	0	0	0	0	0
91,700 - 93,699	\$92,723	1.712	2,560	0	0	0	0	0	0	0	0	0
93,700 - 95,699	\$94,692	2.178	3,257	0	0	0	0	0	0	0	0	0
95,700 - 97,699	\$96,822	2.178	3,257	0	0	0	0	0	0	0	0	0
97,700 - 99,699	\$98,526	2.127	3,181	0	0	0	0	0	0	0	0	0
99,700 - 101,699	\$100,754	1.971	2,947	0	0	0	0	0	0	0	0	0
101,700 - 103,699	\$102,783	1.660	2,482	0	0	0	0	0	0	0	0	0
103,700 - 105,699	\$104,707	1.608	2,405	0	0	0	0	0	0	0	0	0
105,700 - 107,699	\$106,517	1.452	2,171	0	0	0	0	0	0	0	0	0
107,700 - 109,699	\$108,702	0.519	776	0	0	0	0	0	0	0	0	0
109,700 - 111,699	\$110,815	1.400	2,093	0	0	0	0	0	0	0	0	0
111,700 - 113,699	\$112,625	0.622	930	0	0	0	0	0	0	0	0	0
113,700 - 115,699	\$114,744	1.193	1,784	0	0	0	0	0	0	0	0	0
\$115,700 - over	\$166,017	12.864	19,236	0	0	0	0	0	0	0	0	0
TOTAL		100.000	149,535						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



RRB News

U.S. Railroad Retirement Board

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No. 19-12

For Immediate Release
December 2019

Railroad Retirement and Unemployment Insurance Taxes in 2020

The amounts of compensation subject to railroad retirement tier I and tier II payroll taxes will increase in 2020, while the tax rates on employers and employees will stay the same. In addition, unemployment insurance contribution rates paid by railroad employers will not include a surcharge for the first time in five years.

Tier I and Medicare Tax.--The railroad retirement tier I payroll tax rate on covered rail employers and employees for 2020 remains at 7.65 percent. The railroad retirement tier I tax rate is the same as the social security tax, and for withholding and reporting purposes is divided into 6.20 percent for retirement and 1.45 percent for Medicare hospital insurance. The maximum amount of an employee's earnings subject to the 6.20 percent rate increases from \$132,900 to \$137,700 in 2020, with no maximum on earnings subject to the 1.45 percent Medicare rate.

An additional Medicare payroll tax of 0.9 percent applies to an individual's income exceeding \$200,000, or \$250,000 for a married couple filing a joint tax return. While employers will begin withholding the additional Medicare tax as soon as an individual's wages exceed the \$200,000 threshold, the final amount owed or refunded will be calculated as part of the individual's Federal income tax return.

Tier II Tax.--The railroad retirement tier II tax rates in 2020 will remain at 4.9 percent for employees and 13.1 percent for employers. The maximum amount of earnings subject to railroad retirement tier II taxes in 2020 will increase from \$98,700 to \$102,300. Tier II tax rates are based on an average account benefits ratio reflecting railroad retirement fund levels. Depending on this ratio, the tier II tax rate for employees can be between 0 percent and 4.9 percent, while the tier II rate for employers can range between 8.2 percent and 22.1 percent.

(More)

RCAF Unemployment Insurance Tax

	Unemployment Ins.			RRB	Factor	Avg. Ann.	Un. Ins.
	Tax	Earnings	Hourly	Sample	To Update	Taxable	Hourly
	Rate	Base	Earnings	Year	RRB Sample	Earnings	Rate
			\$38.866	(2014)			
2015 Avg.	2.31%	\$17,460	\$39.887		1.016721	\$16,460.37	\$0.208
3Q/16 reb.	2.73%	\$17,460	\$39.731		1.012745	\$16,458.00	\$0.246
4Q/16	2.73%	\$17,460	\$39.703		1.012031	\$16,457.57	\$0.246
1Q/17	3.37%	\$18,540	\$39.736		1.012872	\$17,436.31	\$0.321
2Q/17	3.37%	\$18,540	\$39.738		1.012923	\$17,436.34	\$0.321
3Q/17	3.37%	\$18,540	\$39.775		1.013867	\$17,436.97	\$0.321
			\$39.887	(2015)			
2016 Avg.	2.73%	\$17,460	\$39.231		0.990707	\$16,664.96	\$0.247
3Q/17 reb.	3.37%	\$18,540	\$39.154		0.988762	\$17,655.72	\$0.323
4Q/17	3.37%	\$18,540	\$39.156		0.988813	\$17,655.75	\$0.323
1Q/18	3.76%	\$18,720	\$40.555		1.024142	\$17,843.78	\$0.364
2Q/18	3.76%	\$18,720	\$40.961		1.034395	\$17,850.31	\$0.364
3Q/18	3.76%	\$18,720	\$42.431		1.071517	\$17,873.30	\$0.365
			\$39.231	(2016)			
2017 Avg.	3.37%	\$18,540	\$39.599		1.000000	\$17,625.49	\$0.319
3Q/18 reb.	3.76%	\$18,720	\$42.946		1.084522	\$17,832.94	\$0.360
4Q/18	3.76%	\$18,720	\$42.976		1.085280	\$17,833.29	\$0.360
1Q/19	3.38%	\$19,260	\$42.805		1.080962	\$18,330.97	\$0.333
2Q/19	3.38%	\$19,260	\$42.756		1.079724	\$18,330.37	\$0.333
3Q/19	3.38%	\$19,260	\$43.306		1.093613	\$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			0.000000		\$0.000
3Q/20	0.99%	\$19,860			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 bases [5]		Tax rate (percent) [5]			Maximum monthly taxable earnings	Employer tax rate [7] (percent)	Surcharge or (pooled credit)	New employer tax rate (percent)	Tax [6]	
			Tier I	Tier II						Maximum taxable earnings	Employer tax rate (percent)
	Tier I [9]	Tier II	Employer & employee each	Employer	Employee						
1991	53,400	39,800	7.65	18.1	4.9	785	5.55 - 12.0	---	8.00	785	4.0
1992	55,500	41,400	7.65	18.1	4.9	785	3.10 - 12.0	(3.12)	8.00	785	4.0
1993	57,600	42,900	7.65	18.1	4.9	810	0.65 - 12.0	(5.31)	7.30	810	4.0
1994	60,600	45,000	7.65	18.1	4.9	840	0.65 - 12.0	(0.22)	6.06		
1995	61,200	45,300	7.65	18.1	4.9	850	0.65 - 12.0	---	4.15		
1996	62,700	46,500	7.65	18.1	4.9	865	0.65 - 12.0	---	2.31		
1997	65,400	48,600	7.65	18.1	4.9	890	0.65 - 12.0	---	1.16		
1998	68,400	50,700	7.65	18.1	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	18.1	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	2.38		
2004	87,900	66,100	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	12.8	4.4	1,195	2.15 - 12.0	1.5	4.03		
2007	97,500	72,800	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	2.61		
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	2.62		
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	1,580	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	[10]	[10]	1,655	0.65 - 12.0	---	3.10		
2021 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 14, 2019
RE: Unemployment Insurance Tax Rate for 2020

Unemployment Insurance rates for 2020 can range from a minimum of 0.65 percent to a maximum of 12 percent on monthly earnings up to \$1,655. No surcharge will be in effect for 2020. Michael Rizzo at the Railroad Retirement Board said in his November e-mail that the weighted average 2020 Unemployment Insurance rate for Class I railroads is **0.99 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	2516	44283780.22	17600.87
QTRLY_US	2516	46965718.61	18666.82

The MEANS Procedure

Variable	N	Sum	Mean
FactorA	2516	2648.67	1.0527290
FactorQ	2516	2785.40	1.1070730
Capa	2516	47099520.00	18720.00
Capq	2516	49967760.00	19860.00



U.S. Energy Information
Administration

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Spot Prices

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

Period: Weekly ▾

Product by Area	Graph Clear	10/18/19	10/25/19	11/01/19	11/08/19	11/15/19	11/22/19	View History
Crude Oil								
WTI - Cushing, Oklahoma		53.49	55.20	55.17	56.69	56.85	56.90	1986-2019
Brent - Europe		59.32	60.75	60.23	62.39	62.56	63.76	1987-2019
Conventional Gasoline								
New York Harbor, Regular		1.740	1.752	1.760	1.755	1.708	1.707	1986-2019
U.S. Gulf Coast, Regular		1.650	1.657	1.666	1.643	1.606	1.626	1986-2019
RBOB Regular Gasoline								
Los Angeles		2.228	1.872	2.136	2.209	1.893	1.758	2003-2019
No. 2 Heating Oil								
New York Harbor		1.925	1.965	1.925	1.925	1.908	1.892	1986-2019
Ultra-Low-Sulfur No. 2 Diesel Fuel								
New York Harbor		1.948	1.976	1.933	1.940	1.927	1.913	2006-2019
U.S. Gulf Coast		1.882	1.900	1.837	1.847	1.825	1.812	2006-2019
Los Angeles		2.079	2.115	2.113	2.181	2.152	2.032	1996-2019
Kerosene-Type Jet Fuel								
U.S. Gulf Coast		1.861	1.896	1.847	1.835	1.815	1.788	1990-2019
Propane								
Mont Belvieu, Texas		0.464	0.465	0.493	0.514	0.530	0.542	1992-2019

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: 11/27/2019

Next Release Date: 12/4/2019



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Spot Prices

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

Period: ▾

Product by Area	Graph Clear	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	View History
Crude Oil								
WTI - Cushing, Oklahoma		60.83	54.66	57.35	54.81	56.95	53.96	1986-2019
Brent - Europe		71.32	64.22	63.92	59.04	62.83	59.71	1987-2019
Conventional Gasoline								
New York Harbor, Regular		1.916	1.740	1.890	1.694	1.726	1.728	1986-2019
U.S. Gulf Coast, Regular		1.881	1.722	1.854	1.690	1.681	1.646	1986-2019
RBOB Regular Gasoline								
Los Angeles		2.239	1.851	1.919	1.809	2.059	2.219	2003-2019
No. 2 Heating Oil								
New York Harbor		2.006	1.820	1.888	1.795	1.919	1.920	1986-2019
Ultra-Low-Sulfur No. 2 Diesel Fuel								
New York Harbor		2.031	1.846	1.920	1.824	1.935	1.937	2006-2019
U.S. Gulf Coast		1.983	1.807	1.873	1.788	1.895	1.876	2006-2019
Los Angeles		2.286	1.895	1.952	1.869	1.997	2.065	1996-2019
Kerosene-Type Jet Fuel								
U.S. Gulf Coast		1.972	1.817	1.913	1.800	1.874	1.861	1990-2019
Propane								
Mont Belvieu, Texas		0.577	0.449	0.487	0.405	0.448	0.466	1992-2019

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: 11/27/2019

Next Release Date: 12/4/2019

U.S.

Summary by Composition Category

	MS-2018		Prev. Idx	2019Q4		Calculation		Relative of Change
	MS Amount	Weight		Cur Idx		Prev. Idx	Cur Idx	
Forest Products	585,399,423	0.1065	347.91	394.29		37.05	41.99	
Metal Products	3,538,047,604	0.6438	168.40	165.47		108.42	106.53	
Misc. Products	1,372,228,909	0.2497	605.75	387.98		151.26	96.88	
Total	5,495,675,936	1.0000	296.73	245.40				0.8270
Total Linked			304.29	251.65				
'77 = 100 Link Fact.= 1.423			433.00	358.10				
'80 = 100 Link Fact.= 1.061			322.85	267.00				

As info only	Change
Forest Products	13.33%
Metal Products	-1.74%
Misc. Products	<u>-35.95%</u>
Total ('80=100)	-17.30%
Rounded 80 Indices	-17.3%
Rounded 77 Indices	-17.3%

Car Hire for RCAF - 2018 Weights

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

	1980	June 3Q/19	Sept. 4Q/19	Dec. 1Q/20	Mar. 2Q/20	June 3Q/20
RATE						
RR-OWNED TIME	31.00	65.00	65.00	64.00	--	--
RR-OWNED MILEAGE	4.69	6.70	6.70	6.60	--	--
PRIVATELY-OWNED CARS	25.47	58.88	60.29	60.37	--	--
AUTORACKS	47.00	86.19	87.75	89.40	--	--
INDEX						
RR-OWNED TIME	100.0	209.7	209.7	206.5	--	--
RR-OWNED MILEAGE	100.0	142.9	142.9	140.7	--	--
PRIVATELY-OWNED CARS	100.0	231.2	236.7	237.0	--	--
AUTORACKS	100.0	183.4	186.7	190.2	--	--
CAR HIRE INDEX (old wts) 2017	100.0	222.6	--	--	--	--
CAR HIRE INDEX (new wts) 2018	100.0	225.0	230.0	230.1	--	--
CAR HIRE INDEX (LINKED)	100.0	221.8	226.7	226.8	--	--

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

	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								
Rate (in cents)														
Superstructures #3 - Auto Rack	93.0	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								
All other #2 - Mileage	6.7	6.7	6.7	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								
Covered Hoppers	429,934	429,978	430,640	431,428	431,319	431,271								
Tank Cars	412,471	413,545	414,888	415,980	417,650	418,946								
Others	297,834	297,537	298,118	298,567	299,072	299,144								
Rate (in cents)														
Superstructures #1 - Time	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								
Superstructures #3 - Auto Rack	85.0	86.0	86.0	86.0	87.0	88.0								
Covered Hoppers #2 - Mileage	45.6	45.5	45.5	45.6	45.6	45.0								
Tank Cars #2 - Mileage	98.6	98.7	102.0	102.1	102.3	102.4								
Others #1 - Time	100.0	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								
AVERAGE RATES														
Private Superstructures	21.61	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	30.60	30.82	30.82	30.82	30.82	30.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Private Total	59.04	59.12	60.29	60.38	60.50	60.37	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Authoracks	86.37	87.56	87.75	87.75	88.58	89.40	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

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
Authoracks	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 12/2019

Ownership	Car Group	Car Count	Time Rate (cents/hour)	Mileage Rate (\$/mile)	Auto Rack Rate (cents/hour)
Railroad	Vehicular Flats	11,621	107	0.060	96
Railroad	Number of Zero-Rated Vehicular Flats	84	.	.	.
Railroad	All Other Cars	398,330	64	0.066	.
Railroad	Number of Zero-Rated Other Cars	15,823	.	.	.
Railroad	Total Railroad Equipment	425,858	.	.	.
		.	.	.	.
Private	Vehicular Flats	54,764	86	0.010	88
Private	Number of Zero-Rated Vehicular Flats	131	.	.	.
Private	Covered Hoppers	431,271	0	0.450	.
Private	Number of Zero-Rated Covered Hoppers	15,089	.	.	.
Private	Tanks	418,946	0	1.024	.
Private	Number of Zero-Rated Tanks	12,149	.	.	.
Private	All Other Cars	299,144	101	0.084	.
Private	Number of Zero-Rated Other Cars	24,931	.	.	.
Private	Total Private Equipment	1,256,425	.	.	.

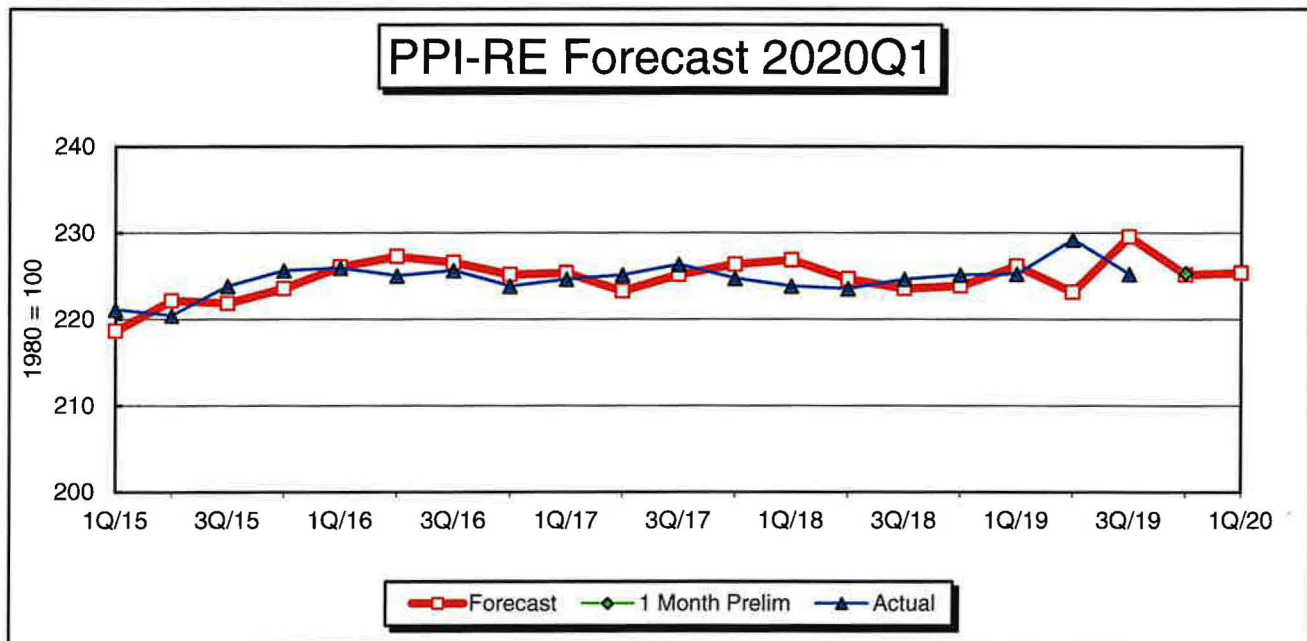
Notes
This report excludes these car types: D (Locomotives), M (MoW, EOTs, etc.), U (Containers), Z (Trailers).
All TTX equipment (including ABOX, RBOX, GONX) is contained in the Private section of report.
Equipment can be zero rated due to owners supplying incorrect or insufficient information to the 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/15	218.6	221.1	
2Q/15	222.1	220.4	
3Q/15	221.8	223.8	
4Q/15	223.5	225.6	
1Q/16	226.0	225.9	
2Q/16	227.2	225.0	
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		225.3
1Q/20	225.3		

1980 Base

	PPI-RE Forecast		Percent Change			
	(82=100)	(80=100)	Yr Ago Actual	Latest Month Actual	2nd Prev Qtr Actual	Previous Forecast
2020Q1						
Low	199.7	220.9	-1.9%			
Midpoint	203.7	225.3	0.0%	0.0%	0.0%	0.1%
High	207.7	229.8	2.0%			



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 1.53 and for Box-Jenkins was 1.48.
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 Box-Jenkins.

Model Details**Expert selection**

Box-Jenkins

ARIMA(0, 1, 0)

Within-Sample Statistics

Sample size	72	No. parameters	0
Mean	201.78	Std. deviation	2.52
R-square	0.83	Adj. R-square	0.84
Durbin-Watson	2.45	Ljung-Box(18)	21.7 P=0.75
Forecast error	1.02	BIC	1.02
MAPE	0.34	SMAPE	0.34
RMSE	1.02	MAD	0.68
MAD/Mean Ratio	0		

Historic Data

Date	Historic
2013-Nov	195.2
2013-Dec	196.9
2014-Jan	196
2014-Feb	197.4
2014-Mar	196.8
2014-Apr	196.2
2014-May	196.7
2014-Jun	196.8
2014-Jul	197.8
2014-Aug	197.9
2014-Sep	198.3
2014-Oct	199.3
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
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
2019-Oct	203.7

Forecast Data

Date	2.5 Lower	Forecast	97.5 Upper
2019-Nov	201.685	203.7	205.715
2019-Dec	200.85	203.7	206.55
2020-Jan	200.21	203.7	207.19
2020-Feb	199.67	203.7	207.73
2020-Mar	199.194	203.7	208.206
2020-Apr	198.764	203.7	208.636
2020-May	198.369	203.7	209.031
2020-Jun	198	203.7	209.4
2020-Jul	197.655	203.7	209.745
2020-Aug	197.328	203.7	210.072
2020-Sep	197.017	203.7	210.383
2020-Oct	196.72	203.7	210.68



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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:

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2018	202.1	202.1	202.0	202.1	202.1	202.1	204.1	204.1	201.1	201.3	201.3	201.3
2019	202.1	203.1	206.5	203.4	203.4	203.4	203.5(P)	203.5(P)	203.7(P)	203.7(P)		

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

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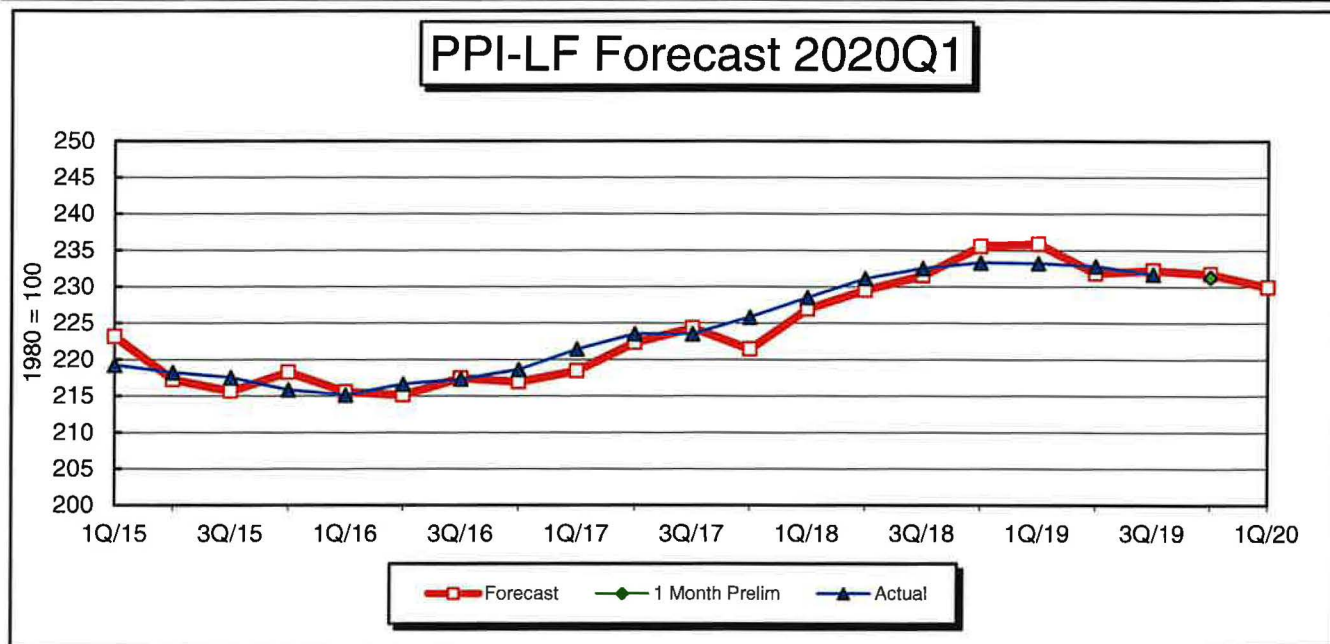


PPI-LF Forecast (for Other and Lease Rentals Components)

	Forecast	Actual	1 Month Prelim
1Q/15	223.1	219.2	
2Q/15	217.2	218.2	
3Q/15	215.6	217.5	
4Q/15	218.2	215.8	
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		231.3
1Q/20	229.9		

1980 Base

	PPI-LF Forecast		Yr Ago Actual	Percent Change		
	(82=100)	(80=100)		Latest Month Actual	2nd Prev Qtr Actual	Previous Forecast
2020Q1						
Low	202.7	227.2	-2.6%			
Midpoint	205.1	229.9	-1.4%	-0.6%	-0.8%	-0.8%
High	207.5	232.6	-0.3%			



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 1.78 and for Box-Jenkins was 1.94.
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(0.912, 0.653, 1.000)

Confidence limits proportional to indexes

Component	Smoothing Wgt		Final Value
Level	0.9124		206.1
Trend	0.6531		-0.2637
Seasonal	0.9999		
Seasonal Indexes			
Jan - Mar	1.001	1	0.9998
Apr - Jun	0.9996	0.9995	0.9996
Jul - Sep	1	1	0.9994
Oct - Dec	1.001	1	0.9995

Within-Sample Statistics

Sample size	72	No. parameters	3
Mean	199.48	Std. deviation	5.52
R-square	0.99	Adj. R-square	0.99
Durbin-Watson	1.62	Ljung-Box(18)	26.6 P=0.91
Forecast error	0.42	BIC	0.45
MAPE	0.17	SMAPE	0.17
RMSE	0.41	MAD	0.34
MAD/Mean Ratio	0		

Historic Data

Date	Historic
2013-Nov	195.5
2013-Dec	195.9
2014-Jan	197.2
2014-Feb	197.6
2014-Mar	197.3
2014-Apr	197.7
2014-May	197.6
2014-Jun	197.7
2014-Jul	198.2
2014-Aug	198.4
2014-Sep	198.3
2014-Oct	198.2

2014-Nov	197.4
2014-Dec	196.7
2015-Jan	196
2015-Feb	195.4
2015-Mar	195
2015-Apr	194.8
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	207.3
2019-Aug	206.8
2019-Sep	206.1
2019-Oct	206.3

Forecast Data

Date	2.5 Lower	Forecast	97.5 Upper
2019-Nov	205.019	205.894	206.769
2019-Dec	203.865	205.447	207.03
2020-Jan	203.439	205.499	207.559
2020-Feb	202.608	205.054	207.501
2020-Mar	201.945	204.724	207.504
2020-Apr	201.347	204.424	207.5
2020-May	200.779	204.126	207.473
2020-Jun	200.298	203.895	207.492
2020-Jul	199.889	203.72	207.551
2020-Aug	199.394	203.446	207.498
2020-Sep	198.804	203.065	207.326
2020-Oct	198.672	203.132	207.593

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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:** [xls](#)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2018	203.0	203.8	204.8	205.4	206.3	207.0	207.4	207.6	207.9	208.7	208.5	207.8
2019	208.3	208.2	208.4	208.2	207.7	207.1	207.3(P)	206.8(P)	206.1(P)	206.3(P)		

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

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Forecast Error Calculation

	2017 Weight	Third Quarter 2019		Difference		Notes
		2019Q3 Forecast	2019Q3 Actual	Pt.	Pct.	
Labor	34.8%	444.7	444.7	0.0	0%	* actual=forecast
Fuel	12.9%	269.0	242.0	-27.0	-10%	from 1st month of quarter
M&S	4.9%	273.1	273.1	0.0	0%	* actual=forecast
Equip Rents	5.7%	238.0	238.9	0.9	0%	from Equipment Rents below
Depreciation	15.7%	229.5	225.2	-4.3	-2%	PPI-RE
Interest	2.1%	62.4	62.4	0.0	0%	
Other	23.9%	232.2	231.7	-0.5	0%	* actual=forecast
						PPI-LF
						203.50 203.50 203.70
						0.9040
						207.30 206.80 206.10
						0.8920
Weighted Avg	100.0%					
1980 = 100		309.2	305.0			calculated
1980 = 100 (linked)		286.2	280.4			calculated
4Q17 = 100	2.645	108.2	106.0			calculated
4Q12 = 100	2.976	96.2	94.2			calculated
4Q07 = 100	2.459	116.4	114.0			calculated
4Q02 = 100	1.921	149.0	146.0			calculated
4Q97 = 100	1.732	165.2	161.9			calculated
Forecast Error		-2.2				calculated -0.022 = RCAF adj.
Prior Quarter						
1980 = 100		304.8	306.5 **			
1980 = 100 (linked)		282.1	281.8			
4Q17 = 100		106.7	106.5			calculated
4Q12 = 100		94.8	94.7			calculated
4Q07 = 100		114.7	114.6			calculated
4Q02 = 100		146.9	146.7			calculated
4Q97 = 100		162.9	162.7			calculated
Equipment Rents						
Car Hire	60.5%	221.8	222.8			from Equipment Rents/CHARM
Lease Rentals	39.5%	232.2	231.7			(equals PPI-LF from above)
Weighted Average		225.9	226.3			calculated
Linked		238.0	238.9			calculated
Prior Quarter						
Weighted Average		225.0	225.9 **			
Linked		237.1	238.5			
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

RCAF Fuel (Actual All-Inclusive Index)

July 2019

Monthly Report

	July 2019 Price (cents) (1)	1/1/81 Price (cents) (2)	1/91 New Method Linking Factors (3)	July 2019 Index 1/1/81=100 (4)	Linking Factor 1980=100 (5)	July 2019 1980=100 Current Index (6)
U.S.	198.07	89.34	99.415	220.41	1.096	241.57

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

(6) = (4) x (5)

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

	July 2019 1980=100 Current Index	Adjustment Factor	July 2019 1980=100 Linked Index
U.S.	241.57	1.00192	242.03 ←

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

RCAF - Depreciation

Series ID : wpu144

Not Seasonally Adjusted

Group : Transportation equipment

Item : Railroad equipment

		Forecast Year 2020			
		As reported at end of month 82=100			
		Nov.	Feb.	May	Aug.
For Forecast	→	20Q1	20Q2	20Q3	20Q4
For Actual	→	19Q3	19Q4	20Q1	20Q2
January	2019	202.1			
February	2019	203.1			
March	2019	206.5			
April	2019	203.4			
May	2019	203.4			
June	2019	203.4			
July	2019	203.5			
August	2019	203.5			
September	2019	203.7			
October	2019	203.7			
November	2019				
December	2019				
January	2020				
February	2020				
March	2020				
April	2020				
May	2020				
June	2020				
July	2020				
Actual Qtr.		203.6	NA	NA	NA

1980=100

Actual Qtr.	225.2	NA	NA	NA
First Mo. next qtr.	225.3	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

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Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2018	202.1	202.1	202.0	202.1	202.1	202.1	204.1	204.1	201.1	201.3	201.3	201.3
2019	202.1	203.1	206.5	203.4	203.4	203.4	203.5(P)	203.5(P)	203.7(P)	203.7(P)		

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

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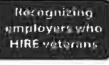
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11/14/2019

RCAF - Other

Series ID : wpu03t15m05

Not Seasonally Adjusted

Group : Industrial Commodities less fuels

Item : Industrial commodities less fuels

		Forecast Year 2020			
		As reported at end of month 82=100			
		Nov.	Feb.	May	Aug.
For Forecast	→	20Q1	20Q2	20Q3	20Q4
For Actual	→	19Q3	19Q4	20Q1	20Q2
January	2019	208.3			
February	2019	208.2			
March	2019	208.4			
April	2019	208.2			
May	2019	207.7			
June	2019	207.1			
July	2019	207.3			
August	2019	206.8			
September	2019	206.1			
October	2019	206.3			
November	2019				
December	2019				
January	2020				
February	2020				
March	2020				
April	2020				
May	2020				
June	2020				
July	2020				
Actual Qtr.		206.7	NA	NA	NA
1980=100					
Actual Qtr.		231.7	NA	NA	NA
First Mo. next qtr.		231.3	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

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Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2018	203.0	203.8	204.8	205.4	206.3	207.0	207.4	207.6	207.9	208.7	208.5	207.8
2019	208.3	208.2	208.4	208.2	207.7	207.1	207.3(P)	206.6(P)	206.1(P)	206.3(P)		

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

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11/14/2019

Car Hire for RCAF - Revised 2017 Weights

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

		1980	Aug 3Q/18	Nov 4Q/18	Feb 1Q/19	May 2Q/19	Aug 3Q/19
RATE							
RR-OWNED TIME		31.00	64.00	64.00	65.00	65.00	65.00
RR-OWNED MILEAGE		4.69	6.70	6.70	6.70	6.70	6.70
PRIVATELY-OWNED CARS		25.47	55.66	57.29	57.29	58.77	59.12
AUTORACKS		47.00	86.16	87.67	82.67	84.84	87.56
INDEX							
RR-OWNED TIME		100.0	206.5	206.5	209.7	209.7	209.7
RR-OWNED MILEAGE		100.0	142.9	142.9	142.9	142.9	142.9
PRIVATELY-OWNED CARS		100.0	218.5	224.9	225.0	230.7	232.1
AUTORACKS		100.0	183.3	186.5	175.9	180.5	186.3
CAR HIRE INDEX (old wts)	2016	100.0	209.9	--	--	--	--
CAR HIRE INDEX (new wts)	2017	100.0	211.9	217.4	217.1	222.1	223.5
CAR HIRE INDEX (LINKED)		100.0	211.2	216.7	216.4	221.4	222.8

Note: Indexes are rounded, rates are full float.

Car Hire Data From CHARM

	2018 (first day of month)						2019 (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)	10,741	10,849	10,867	10,873	10,859	10,867	10,980	10,987	11,107	11,132	11,226	11,316	11,391	11,521
Rate (in cents)														
Superstructures #3 - Auto Rack	86.0	87.0	87.0	87.0	86.0	86.0	86.0	86.0	87.0	88.0	89.0	92.0	93.0	95.0
All other #1 - Time	64.0	64.0	64.0	64.0	64.0	64.0	64.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
All other #2 - Mileage	6.6	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Private Equipment														
No. of Cars (cars with rates only)														
Superstructures (Vehicular Flats)	55,504	55,500	55,392	55,268	55,162	55,158	55,092	55,090	55,038	55,146	55,203	55,179	55,167	55,067
Covered Hoppers	421,139	422,430	423,225	424,175	425,349	426,465	426,889	427,681	428,680	429,508	429,447	429,373	429,934	429,978
Tank Cars	405,718	405,541	405,949	406,278	406,924	407,122	407,849	408,068	408,804	409,769	409,873	411,017	412,471	413,545
Others	291,908	291,714	292,215	292,904	295,029	295,548	296,028	296,805	296,959	296,995	296,817	297,458	297,834	297,537
Rate (in cents)														
Superstructures #1 - Time	84.0	84.0	84.0	84.0	84.0	84.0	85.0	85.0	86.0	86.0	86.0	86.0	86.0	86.0
Superstructures #2 - Mileage	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.0
Superstructures #3 - Auto Rack	86.0	86.0	87.0	87.0	88.0	88.0	82.0	82.0	83.0	83.0	84.0	85.0	85.0	86.0
Covered Hoppers #2 - Mileage	46.2	46.2	46.2	46.3	46.3	46.3	45.2	45.3	45.4	45.4	45.5	45.5	45.6	45.5
Tank Cars #2 - Mileage	89.9	90.0	94.6	94.7	94.7	94.8	94.5	94.6	98.1	98.2	98.3	98.4	98.6	98.7
Others #1 - Time	89.0	90.0	90.0	90.0	90.0	90.0	98.0	98.0	98.0	99.0	99.0	100.0	100.0	101.0
Others #2 - Mileage	8.2	8.2	8.3	8.3	8.3	8.3	8.2	8.2	8.3	8.3	8.3	8.3	8.4	8.4
AVERAGE RATES														
Private Superstructures	21.14	21.14	21.14	21.14	21.14	21.14	21.38	21.38	21.61	21.61	21.61	21.61	21.61	21.21
Private Others	27.96	28.18	28.28	28.28	28.28	28.28	29.96	29.96	30.06	30.28	30.28	30.50	30.60	30.82
Private Total	55.58	55.66	57.27	57.33	57.29	57.30	57.24	57.29	58.58	58.69	58.77	58.88	59.04	59.12
Autoracks	86.00	86.16	87.00	87.00	87.67	87.67	82.66	82.67	83.67	83.84	84.84	86.19	86.37	87.56

Car Hire Weights	"Old Wts" New Wts"	
	2016	2017
For RCAF & RCR		
RR-owned Time	0.091	0.073
RR-owned Mileage	0.058	0.049
Privately-owned Cars	0.762	0.822
Autoracks	0.089	0.056
----- Check sum	1.000	1.000

Weights for Equipment Rents		
(not used in Car Hire calculation)		
	2016	2017
Car Hire - U.S.	0.583	0.605
Lease Rentals - U.S.	0.417	0.395
----- 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.

All-Inclusive Index (Actual) - Revised 2017 Weights

	17 Wts	3Q/18 16 Wts	3Q/18 17 Wts	% Chg.	4Q/18 17 Wts	% Chg.	1Q/19 17 Wts	% Chg.	2Q/19 17 Wts	% Chg.	3Q/19 17 Wts	% Chg.
Labor	34.8%	434.3	434.3	0.0%	439.2	1.1%	440.3	0.3%	439.7	-0.1%	444.7	1.1%
Fuel	12.9%	274.0	274.0	0.0%	297.4	8.5%	222.0	-25.4%	262.4	18.2%	242.0	-7.8%
M&S	4.9%	263.7	263.7	0.0%	269.8	2.3%	268.3	-0.6%	267.6	-0.3%	273.1	2.1%
Equipment Rents	5.7%	231.8	231.8	0.0%	235.7	1.7%	235.4	-0.1%	238.5	1.3%	238.9	0.2%
Depreciation	15.7%	224.6	224.6	0.0%	225.1	0.2%	225.2	0.0%	229.2	1.8%	225.2	-1.7%
Interest	2.1%	60.5	60.5	0.0%	62.4	3.1%	62.4	0.0%	62.4	0.0%	62.4	0.0%
Other	23.9%	232.5	232.5	0.0%	233.3	0.3%	233.2	0.0%	232.8	-0.2%	231.7	-0.5%
	<u>1.0000</u>											
Weighted Avg.		305.3	304.7	-0.2%	310.3	1.8%	300.8	-3.1%	306.5	1.9%	305.0	-0.5%
Linked		280.2			285.3	1.8%	276.6	-3.0%	281.8	1.9%	280.4	-0.5%
10/1/80	1.027	272.8			277.8	1.8%	269.3	-3.1%	274.4	1.9%	273.0	-0.5%
10/1/82	1.209	231.8			236.0	1.8%	228.8	-3.1%	233.1	1.9%	231.9	-0.5%
4Q/87	1.322	212.0			215.8	1.8%	209.2	-3.1%	213.2	1.9%	212.1	-0.5%
4Q/92	1.569	178.6			181.8	1.8%	176.3	-3.0%	179.6	1.9%	178.7	-0.5%
4Q/97	1.732	161.8			164.7	1.8%	159.7	-3.0%	162.7	1.9%	161.9	-0.5%
4Q/02	1.921	145.9			148.5	1.8%	144.0	-3.0%	146.7	1.9%	146.0	-0.5%
4Q/07	2.459	113.9			116.0	1.8%	112.5	-3.0%	114.6	1.9%	114.0	-0.5%
4Q/12	2.976	94.2			95.9	1.8%	92.9	-3.1%	94.7	1.9%	94.2	-0.5%
4Q/17	2.645	105.9			107.9	1.9%	104.6	-3.1%	106.5	1.8%	106.0	-0.5%
Equipment Rents												
Car Hire	60.5%	211.2	211.2	0.0%	216.7	2.6%	216.4	-0.1%	221.4	2.3%	222.8	0.6%
Lease Rentals	39.5%	232.5	232.5	0.0%	233.3	0.3%	233.2	0.0%	232.8	-0.2%	231.7	-0.5%
	<u>1.0000</u>											
ER Weighted Avg		220.1	219.6	-0.2%	223.3	1.7%	223.0	-0.1%	225.9	1.3%	226.3	0.2%
ER Linked		231.8			235.7	1.7%	235.4	-0.1%	238.5	1.3%	238.9	0.2%

<i>Impact/Check of weight change</i>	<u>16 Wts</u>	<u>17 Wts</u>
Labor	137.673	151.136
Fuel	57.266	35.346
Material & Supplies	13.712	12.921
Equipment Rents	12.517	13.213
Depreciation	28.300	35.262
Interest	0.908	1.271
Other	52.778	55.568
Weighted Avg.	303.153	304.717
ER Weighted Avg.	220.4655	219.6135

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