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Senior Vice President - Policy & Economics

December 5, 2017

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

Dear Ms. Brown:

This submission is the AAR forecast of the first quarter 2018 All-Inclusive Index and Rail Cost Adjustment Factor, filed in Ex Parte No. 290 (Sub-No. 5) (2018-1) *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 fourth quarter 2017 and the first quarter 2018 results on the **new fourth quarter 2017 base**, and shows the percentage changes from the previous quarter.

	<u>2017Q4</u>	<u>2018Q1</u>	<u>% Change</u>
All-Inclusive Index	101.0	103.8	2.8
Preliminary RCAF	1.01	1.038	2.8
Forecast Error Adjustment	-0.010	-0.011	
RCAF (Unadjusted)	1.000	1.027	2.7
Productivity Adjustment Factor	2.4192	2.4313	
RCAF (Adjusted)	0.413	0.422	2.2
PAF-5	2.5412	2.5539	
RCAF-5	0.394	0.402	2.0

December 5, 2017

The Staggers Act requires the RCAF to be rebased every five years. The procedure necessary to calculate this rebasing was outlined by the ICC in Ex Parte No. 290 (Sub-No. 5) effective January 1, 1988. The rebasing calculation which will bring the index to the fourth quarter 2017 base is shown on page 1A of the attached filing.

Due to the fact that many people may need to compare the current RCAF to an older version that was calculated using a different base, the AAR has provided Attachment A, which contains historical RCAFs converted to a fourth quarter 2017 base. The AAR's recommended method for converting to another base is shown in the same attachment, as well as factors and indexes necessary to make those calculations.

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.

We have notified Pedro Ramirez, in the STB office handling this proceeding, of our plan to e-file the submission and the non-proprietary work papers in accordance with the ICC's order in Ex Parte No. 290 (Sub-No. 2), Railroad Cost Recovery Procedures, served February 8, 1990. A second copy of the submission and non-proprietary work papers, plus selected highly confidential work papers, will be hand-delivered to a member of Mr. Ramirez's Data Collection and Auditing Team. All workpapers are available for STB inspection. Questions should be directed to me or Clyde Crimmel (202 639-2309) of this office.

Sincerely,

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

John T. Gray

Attachments

Rail Cost Adjustment Factor — 2017Q4 Base

Attachment A
Page 1 of 6

Yr/Qtr (Col 1)	Preliminary RCAF (Col 2)	Forecast Error Adjustment (Col. 3)	RCAF (Unad- justed) (Col 4)	Productivity-Adjusted RCAF		STB's 2nd Productivity- Adjusted RCAF (Not endorsed by AAR)	
				Productivity Adjustment Factor (Col 5)	RCAF (Adjusted) (Col 6)	PAF-5 (Col 7)	RCAF-5 (Col 8)
2007	Q1	0.869	0.007	0.876	2.1259	0.412	2.2351
	Q2	0.870	-0.036	0.834	2.1348	0.391	2.2456
	Q3	0.885	-0.015	0.870	2.1438	0.406	2.2562
	Q4	0.914	0.015	0.929	2.1528	0.432	2.2668
2008	Q1	0.962	0.014	0.976	2.1618	0.451	2.2763
	Q2	0.986	0.015	1.001	2.1683	0.462	2.2859
	Q3	1.075	-0.008	1.067	2.1748	0.491	2.2955
	Q4	1.074	0.041	1.115	2.1813	0.511	2.3051
2009	Q1	0.937	0.013	0.950	2.1878	0.434	2.3120
	Q2	0.882	-0.092	0.790	2.1944	0.360	2.3189
	Q3	0.927	-0.055	0.872	2.2010	0.396	2.3259
	Q4	0.928	-0.002	0.926	2.2076	0.419	2.3329
2010	Q1	0.971	-0.005	0.966	2.2142	0.436	2.3399
	Q2	0.971	0.015	0.986	2.2208	0.444	2.3469
	Q3	0.991	0.003	0.994	2.2275	0.446	2.3539
	Q4	0.994	0.032	1.026	2.2342	0.459	2.3610
2011	Q1	1.030	-0.014	1.016	2.2409	0.453	2.3681
	Q2	1.075	0.017	1.092	2.2487	0.486	2.3752
	Q3	1.103	0.019	1.122	2.2566	0.497	2.3823
	Q4	1.100	0.025	1.125	2.2645	0.497	2.3894
2012	Q1	1.095	-0.007	1.088	2.2724	0.479	2.3978
	Q2	1.123	-0.020	1.103	2.2769	0.484	2.4062
	Q3	1.095	-0.006	1.089	2.2815	0.477	2.4146
	Q4	1.131	-0.006	1.125	2.2861	0.492	2.4231
2013	Q1	1.124	-0.002	1.122	2.2907	0.490	2.4279
	Q2	1.129	0.004	1.133	2.2957	0.494	2.4328
	Q3	1.113	-0.014	1.099	2.3008	0.478	2.4377
	Q4	1.126	-0.029	1.097	2.3059	0.476	2.4426
2014	Q1	1.108	-0.004	1.104	2.3110	0.478	2.4480
	Q2	1.122	-0.025	1.097	2.3168	0.473	2.4534
	Q3	1.119	-0.011	1.108	2.3226	0.477	2.4588
	Q4	1.109	-0.009	1.100	2.3284	0.472	2.4642
2015	Q1	1.074	-0.010	1.064	2.3342	0.456	2.4704
	Q2	1.025	-0.036	0.989	2.3382	0.423	2.4766
	Q3	1.020	-0.086	0.934	2.3422	0.399	2.4828
	Q4	0.996	-0.025	0.971	2.3462	0.414	2.4890
2016	Q1	0.992	-0.020	0.972	2.3502	0.414	2.4932
	Q2	0.959	-0.014	0.945	2.3584	0.401	2.4974
	Q3	0.994	-0.046	0.948	2.3667	0.401	2.5016
	Q4	0.985	0.005	0.990	2.3750	0.417	2.5059
2017	Q1	1.011	-0.012	0.999	2.3833	0.419	2.5147
	Q2	1.021	-0.004	1.017	2.3952 *	0.425	2.5235
	Q3	1.016	0.000	1.016	2.4072 *	0.422	2.5323
	Q4	1.010	-0.010	1.000	2.4192 *	0.413	2.5412
2018	Q1	1.038	-0.011	1.027	2.4313 *	0.422	2.5539 *

* The Productivity Adjustment Factors for 2017Q2-2018Q1, and the PAF-5 for 2018Q1, are tentative because they are based on a tentative change in productivity adopted by the Surface Transportation Board in a February 2017 decision. In September, the Board proposed a different productivity change, but *had not made* the new calculation effective as of December 5, 2017. A revised change in productivity could affect the productivity-adjusted versions of the Rail Cost Adjustment Factor: the RCAF (Adjusted) for 2017Q2-2018Q1, and the RCAF-5 for 2018Q1. See *Railroad Cost Recovery Procedures - Productivity Adjustment*, Ex Parte 290 (Sub-No. 4), (STB served September 29, 2017).

Rail Cost Adjustment Factor — 2017Q4 Base

Attachment A
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Yr/Qtr (Col 1)	Preliminary RCAF (Col 2)	Forecast Error Adjustment (Col. 3)	RCAF (Unad- justed) (Col 4)	Productivity-Adjusted RCAF		STB's 2nd Productivity- Adjusted RCAF (Not endorsed by AAR)		
				Productivity Adjustment Factor (Col 5)	RCAF (Adjusted) (Col 6)	PAF-5 (Col 7)	RCAF-5 (Col 8)	
1996	Q1	0.635	-0.003	0.632	1.3624	0.464	Did not exist.	
	Q2	0.633	-0.003	0.630	1.3820	0.456		
	Q3	0.639	-0.001	0.638	1.4019	0.455		
	Q4	0.644	0.004	0.648	1.4221	0.456		
1997	Q1	0.660	0.001	0.661	1.4426	0.458	1.4733	0.449
	Q2	0.657	0.005	0.662	1.4603	0.453	1.4945	0.443
	Q3	0.660	-0.001	0.659	1.4783	0.446	1.5160	0.435
	Q4	0.655	0.000	0.655	1.4965	0.438	1.5378	0.426
1998	Q1	0.653	-0.001	0.652	1.5149	0.430	1.5567	0.419
	Q2	0.648	0.004	0.652	1.5503	0.421	1.5758	0.414
	Q3	0.656	-0.002	0.654	1.5866	0.412	1.5952	0.410
	Q4	0.655	0.002	0.657	1.6237	0.405	1.6148	0.407
1999	Q1	0.654	-0.002	0.652	1.6617	0.392	1.6526	0.395
	Q2	0.651	0.000	0.651	1.6850	0.386	1.6913	0.385
	Q3	0.659	-0.003	0.656	1.7086	0.384	1.7309	0.379
	Q4	0.658	0.004	0.662	1.7325	0.382	1.7714	0.374
2000	Q1	0.678	0.004	0.682	1.7568	0.388	1.7962	0.380
	Q2	0.682	0.006	0.688	1.7719	0.388	1.8213	0.378
	Q3	0.687	0.002	0.689	1.7871	0.386	1.8468	0.373
	Q4	0.694	0.002	0.696	1.8025	0.386	1.8727	0.372
2001	Q1	0.707	0.003	0.710	1.8180	0.391	1.8888	0.376
	Q2	0.702	0.002	0.704	1.8305	0.385	1.9050	0.370
	Q3	0.707	-0.001	0.706	1.8431	0.383	1.9214	0.367
	Q4	0.704	0.003	0.707	1.8558	0.381	1.9379	0.365
2002	Q1	0.705	-0.001	0.704	1.8686	0.377	1.9513	0.361
	Q2	0.696	-0.002	0.694	1.8878	0.368	1.9648	0.353
	Q3	0.702	-0.007	0.695	1.9072	0.364	1.9784	0.351
	Q4	0.718	0.009	0.727	1.9268	0.377	1.9921	0.365
2003	Q1	0.721	0.003	0.724	1.9466	0.372	2.0126	0.360
	Q2	0.735	0.007	0.742	1.9557	0.379	2.0333	0.365
	Q3	0.731	0.010	0.741	1.9649	0.377	2.0542	0.361
	Q4	0.741	-0.003	0.738	1.9741	0.374	2.0754	0.356
2004	Q1	0.740	0.005	0.745	1.9834	0.376	2.0852	0.357
	Q2	0.745	0.005	0.750	1.9943	0.376	2.0950	0.358
	Q3	0.766	0.011	0.777	2.0053	0.387	2.1048	0.369
	Q4	0.781	0.016	0.797	2.0163	0.395	2.1147	0.377
2005	Q1	0.797	0.007	0.804	2.0274	0.397	2.1263	0.378
	Q2	0.812	0.021	0.833	2.0420	0.408	2.1380	0.390
	Q3	0.820	0.004	0.824	2.0567	0.401	2.1498	0.383
	Q4	0.852	0.009	0.861	2.0715	0.416	2.1616	0.398
2006	Q1	0.847	0.009	0.856	2.0864	0.410	2.1772	0.393
	Q2	0.846	0.009	0.855	2.0962	0.408	2.1929	0.390
	Q3	0.870	-0.004	0.866	2.1061	0.411	2.2087	0.392
	Q4	0.889	0.019	0.908	2.1160	0.429	2.2246	0.408

Beginning 1989Q2, a productivity adjustment was added to the RCAF. What was formerly called the RCAF is now called the "RCAF (Unadjusted)" because it does not have a productivity adjustment. The productivity-adjusted RCAF is called the "RCAF (Adjusted)".

In its October 3, 1996 decision, the Surface Transportation Board added another version of a productivity-adjusted RCAF called the "RCAF-5". This second productivity adjustment factor began being used with the 1997Q1 Rail Cost Adjustment Factor.

Sample Rebasing Calculations

Attachment A
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Preliminary RCAF:

Recommended Method

The All-Inclusive Index (AII) Forecast is divided by the appropriate Basing Factor.

Example calculations (AII and Basing Factors are listed on page 4):

2016Q1 on a 4Q17 basis = $262.5 / 264.5 = 0.9924386 = 0.992$

2016Q1 on a 4Q12 basis = $262.5 / 297.6 = 0.8820565 = 0.882$

2016Q1 on a 4Q97 basis = $262.5 / 173.2 = 1.5155889 = 1.516$

Alternative Method

An alternative method can be used to convert a Preliminary RCAF from one basis to another basis without knowing the All-Inclusive Index. This method will occasionally have small rounding differences, and is not recommended except as a "check" or as an approximation.

New Base Index = (Old Basing Factor / New Basing Factor) x Old Base Index.

Example for converting 2016Q1 on a 4Q12 basis to a 4Q17 basis:

$(297.6 / 264.5) \times 0.882 = 0.9923750 = 0.992$

Forecast Error Adjustment:

Recommended Method

1. Use the All-Inclusive Indexes (AII) for the two quarters prior to the quarter to be adjusted.
2. The All Actual is divided by the appropriate Basing Factor and rounded 3 digits after decimal.
3. The All Forecast is divided by the appropriate Basing Factor and rounded.
4. Take the result from step 2 and subtract the result from step 3.

Example calculation for 2016Q1:

1. Use A-I Index from 2 quarters prior, 2015Q3: 264.4 = Actual, 269.7 = Forecast

2. Actual = $264.4 / 264.5 = 0.9996219 = 1.000$

3. Forecast = $269.7 / 264.5 = 1.0196597 = 1.020$

4. Forecast Error = $1.000 - 1.020 = -0.020$

Alternative Method

This method has occasional rounding differences, and is not recommended except as a check or an approximation. The new base Forecast Error Adjustment equals:

(Old Basing Factor / New Basing Factor) x Old Forecast Error Adjustment.

Example for converting 2015Q3 on a 4Q12 basis, which was used for 2016Q1, to a 4Q17 basis:

Forecast Error 4Q17 basis = $(297.6 / 264.5) \times -0.018 = -0.0202526 = -0.020$

RCAF (Unadjusted)

RCAF (Unadjusted) = Preliminary RCAF + Forecast Error Adjustment.

Example for 2016Q1, on a 4Q17 basis: $0.992 + -0.020 = 0.972$

Productivity Adjustment Factor

Use the Productivity Adjustment Factor as originally calculated for each quarter.

For 2016Q1, the Productivity Adjustment Factor is 2.3502.

RCAF (Adjusted)

RCAF (Adjusted) = RCAF (Unadjusted) / Productivity Adjustment Factor.

Example for 2016Q1, on a 4Q17 basis: $0.972 / 2.3502 = 0.4135818 = 0.414$

PAF-5

Use the STB's alternative productivity adjustment factor, PAF-5, as originally calculated.

For 2016Q1, the Productivity Adjustment Factor is 2.4932.

RCAF-5

RCAF-5 = RCAF (Unadjusted) / PAF-5

Example for 2016Q1, on a 4Q17 basis: $0.972 / 2.4932 = 0.3898604 = 0.390$

Indexes & Factors for RCAF

Attachment A
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Yr/Qtr	All-Inclusive Index 1980 = 100		Prod. Adj. Factor	PAF-5	Original Basis		Basing Factor	
	Forecast	Actual			Prelim RCAF	Forecast Error		
1991	Q1	151.2	150.1	1.0755	-	1.144	0.001	132.2
	Q2	149.1	148.8	1.0871	-	1.128	0.015	132.2
	Q3	153.0	152.8	1.0988	-	1.157	-0.009	132.2
	Q4	155.5	156.1	1.1107	-	1.176	-0.002	132.2
1992	Q1	154.5	154.1	1.1227	-	1.169	-0.001	132.2
	Q2	152.9	153.7	1.1348	-	1.157	0.005	132.2
	Q3	153.5	154.1	1.1471	-	1.161	-0.003	132.2
	Q4	156.1	156.5	1.1595	-	1.181	0.006	132.2
1993	Q1	158.1	158.4	1.1720	-	1.008	0.004	156.9
	Q2	157.3	157.5	1.1847	-	1.003	0.002	156.9
	Q3	158.6	158.0	1.1975	-	1.011	0.002	156.9
	Q4	160.7	161.0	1.2104	-	1.024	0.001	156.9
1994	Q1	162.1	162.1	1.2253	-	1.033	-0.004	156.9
	Q2	160.4	160.7	1.2404	-	1.022	0.002	156.9
	Q3	164.1	164.6	1.2557	-	1.046	0.000	156.9
	Q4	163.7	164.4	1.2711	-	1.043	0.002	156.9
1995	Q1	165.5	166.2	1.2867	-	1.055	0.003	156.9
	Q2	167.1	167.6	1.3052	-	1.065	0.005	156.9
	Q3	168.8	168.0	1.3240	-	1.076	0.004	156.9
	Q4	168.9	168.2	1.3431	-	1.076	0.003	156.9
1996	Q1	168.0	167.6	1.3624	-	1.071	-0.005	156.9
	Q2	167.4	168.4	1.3820	-	1.067	-0.004	156.9
	Q3	169.0	169.4	1.4019	-	1.077	-0.003	156.9
	Q4	170.4	171.7	1.4221	-	1.086	0.006	156.9
1997	Q1	174.7	174.4	1.4426	1.4733	1.113	0.003	156.9
	Q2	173.7	173.7	1.4603	1.4945	1.107	0.008	156.9
	Q3	174.6	174.4	1.4783	1.5160	1.113	-0.001	156.9
	Q4	173.2	174.2	1.4965	1.5378	1.104	0.000	156.9
1998	Q1	172.7	172.1	1.5149	1.5567	0.997	-0.001	173.2
	Q2	171.5	171.8	1.5503	1.5758	0.990	0.006	173.2
	Q3	173.4	172.9	1.5866	1.5952	1.001	-0.003	173.2
	Q4	173.3	173.2	1.6237	1.6148	1.001	0.002	173.2
1999	Q1	173.0	172.3	1.6617	1.6526	0.999	-0.003	173.2
	Q2	172.1	173.2	1.6850	1.6913	0.994	-0.001	173.2
	Q3	174.2	175.4	1.7086	1.7309	1.006	-0.004	173.2
	Q4	174.1	175.6	1.7325	1.7714	1.005	0.006	173.2
2000	Q1	179.4	179.8	1.7568	1.7962	1.036	0.007	173.2
	Q2	180.3	180.8	1.7719	1.8213	1.041	0.009	173.2
	Q3	181.6	182.5	1.7871	1.8468	1.048	0.002	173.2
	Q4	183.5	184.1	1.8025	1.8727	1.059	0.003	173.2
2001	Q1	186.9	186.8	1.8180	1.8888	1.079	0.006	173.2
	Q2	185.6	186.4	1.8305	1.9050	1.072	0.004	173.2
	Q3	186.9	186.8	1.8431	1.9214	1.079	0.000	173.2
	Q4	186.1	185.7	1.8558	1.9379	1.074	0.004	173.2
2002	Q1	186.4	184.7	1.8686	1.9513	1.076	0.000	173.2
	Q2	184.2	186.4	1.8878	1.9648	1.064	-0.002	173.2
	Q3	185.6	186.4	1.9072	1.9784	1.072	-0.010	173.2
	Q4	189.9	191.7	1.9268	1.9921	1.096	0.012	173.2
2003	Q1	190.6	193.3	1.9466	2.0126	0.992	0.004	192.1
	Q2	194.3	193.6	1.9557	2.0333	1.011	0.009	192.1
	Q3	193.3	194.6	1.9649	2.0542	1.006	0.014	192.1
	Q4	195.9	197.2	1.9741	2.0754	1.020	-0.003	192.1

Indexes & Factors for RCAF

Attachment A

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Yr/Qtr	All-Inclusive Index 1980 = 100		Prod. Adj. Factor	PAF-5	Original Basis		Basing Factor	
	Forecast	Actual			Prelim RCAF	Forecast Error		
2004	Q1	195.6	198.7	1.9834	2.0852	1.018	0.007	192.1
	Q2	197.1	201.3	1.9943	2.0950	1.026	0.007	192.1
	Q3	202.6	204.5	2.0053	2.1048	1.055	0.016	192.1
	Q4	206.5	212.2	2.0163	2.1147	1.075	0.022	192.1
2005	Q1	210.7	211.9	2.0274	2.1263	1.097	0.010	192.1
	Q2	214.9	217.2	2.0420	2.1380	1.119	0.030	192.1
	Q3	217.0	219.2	2.0567	2.1498	1.130	0.006	192.1
	Q4	225.3	227.8	2.0715	2.1616	1.173	0.012	192.1
2006	Q1	223.9	223.1	2.0864	2.1772	1.166	0.011	192.1
	Q2	223.8	228.7	2.0962	2.1929	1.165	0.013	192.1
	Q3	230.0	232.0	2.1061	2.2087	1.197	-0.005	192.1
	Q4	235.2	225.6	2.1160	2.2246	1.224	0.026	192.1
2007	Q1	229.9	226.0	2.1259	2.2351	1.197	0.011	192.1
	Q2	230.0	234.1	2.1348	2.2456	1.197	-0.050	192.1
	Q3	234.0	237.7	2.1438	2.2562	1.218	-0.021	192.1
	Q4	241.7	245.6	2.1528	2.2668	1.258	0.022	192.1
2008	Q1	254.4	252.3	2.1618	2.2763	1.035	0.015	245.9
	Q2	260.9	271.6	2.1683	2.2859	1.061	0.016	245.9
	Q3	284.3	287.8	2.1748	2.2955	1.156	-0.009	245.9
	Q4	284.1	259.7	2.1813	2.3051	1.155	0.044	245.9
2009	Q1	247.8	233.2	2.1878	2.3120	1.008	0.014	245.9
	Q2	233.4	232.8	2.1944 a	2.3189	0.949	-0.099	245.9
	Q3	245.3	243.8	2.2010 a	2.3259	0.998	-0.060	245.9
	Q4	245.5	249.4	2.2076 a	2.3329	0.998	-0.002	245.9
2010	Q1	256.9	257.6	2.2142 a	2.3399 a	1.045	-0.007	245.9
	Q2	256.8	265.3	2.2208	2.3469	1.044	0.016	245.9
	Q3	262.0	258.3	2.2275	2.3539	1.065	0.003	245.9
	Q4	262.9	267.5	2.2342	2.3610	1.069	0.035	245.9
2011	Q1	272.4	277.4	2.2409	2.3681	1.108	-0.015	245.9
	Q2	284.4	291.0	2.2487	2.3752	1.157	0.019	245.9
	Q3	291.7	289.8	2.2566	2.3823	1.186	0.020	245.9
	Q4	291.0 b	285.7 b	2.2645	2.3894	1.183	0.026	245.9
2012	Q1	289.5 b	288.0 b	2.2724	2.3978	1.177	-0.007	245.9
	Q2	297.0 b	295.5 b	2.2769	2.4062	1.208	-0.021	245.9
	Q3	289.6 b	289.0 b	2.2815	2.4146	1.178	-0.006	245.9
	Q4	299.1 b	300.1 b	2.2861	2.4231	1.216	-0.006	245.9
2013	Q1	297.4 b	293.7 b	2.2907	2.4279	0.999	-0.002	297.6 b
	Q2	298.6 b	290.9 b	2.2957	2.4328	1.003	0.003	297.6 b
	Q3	294.4 b	293.2	2.3008	2.4377	0.989	-0.012	297.6 b
	Q4	297.9 c	291.3	2.3059	2.4426	1.001 b	-0.026	297.6 b
2014	Q1	293.0 d	290.2	2.3110	2.4480	0.985 d	-0.004	297.6
	Q2	296.8	294.4	2.3168	2.4534	0.997	-0.022	297.6
	Q3	296.1	293.4	2.3226	2.4588	0.995	-0.010	297.6
	Q4	293.2	283.9	2.3284	2.4642	0.985	-0.008	297.6

a - restated by STB in Docket No. EP 290 (Sub-No. 4) served January 20, 2012.

b - restated by AAR, as directed by STB, in EP No. EP 290 (Sub-No. 5)(2014-1) submitted December 5, 2013. STB approved in Docket No. EP 290 (Sub-No. 5)(2014-1) served December 20, 2013.

c - restated by AAR, as directed by STB, in EP No. EP 290 (Sub-No. 5)(2014-2) submitted March 18, 2014. This caused a change to number that had been restated in 2014-1 submission. STB approved in decision served March 20, 2014.

d - restated by AAR, as directed by STB, in EP No. EP 290 (Sub-No. 5)(2014-2) submitted March 18, 2014. STB approved in Docket No. EP 290 (Sub-No. 5)(2014-2) served March 20, 2014.

Indexes & Factors for RCAF

Attachment A
Page 6 of 6

Yr/Qtr	All-Inclusive Index 1980 = 100		Prod. Adj. Factor	PAF-5	Original Basis		Basing Factor	
	Forecast	Actual			Prelim RCAF	Forecast Error		
2015	Q1	284.2	261.3	2.3342	2.4704	0.955	-0.009	297.6
	Q2	271.0	264.4	2.3382	2.4766	0.911	-0.031	297.6
	Q3	269.7	264.4	2.3422	2.4828	0.906	-0.077	297.6
	Q4	263.4	259.8	2.3462	2.4890	0.885	-0.023	297.6
2016	Q1	262.5	250.1	2.3502	2.4932	0.882	-0.018	297.6
	Q2	253.7	255.0	2.3584	2.4974	0.852	-0.012	297.6
	Q3	263.0	259.7	2.3667	2.5016	0.884	-0.042	297.6
	Q4	260.6	259.5	2.3750	2.5059	0.876	0.005	297.6
2017	Q1	267.4	267.5	2.3833	2.5147	0.899	-0.011	297.6
	Q2	270.1	267.4	2.3952 e	2.5235	0.908	-0.004	297.6
	Q3	268.7	265.7	2.4072 e	2.5323	0.903	0.000	297.6
	Q4	267.1		2.4192 e	2.5412	0.898	-0.009	297.6
2018	Q1	274.5		2.4313 e	2.5539 e	1.038	-0.011	264.5

e - These productivity adjustment factors could be revised, potentially affecting the RCAF-A or RCAF-5. See Railroad Cost Recovery Procedures - Productivity Adjustment, STB Ex Parte No. 290 (Sub-No. 4) served September 29, 2017.

Preliminary RCAF = All-Inclusive Index Forecast / Basing Factor
Forecast Error = (A-II Actual/Basing Factor) - (A-II Forecast/Basing Factor)
 where each is rounded to 3 digits after the decimal
 where A-II for forecast error calculation is from 2 quarters earlier
RCAF Unadjusted = Preliminary RCAF less Forecast Error
RCAF Adjusted = RCAF Unadjusted / Productivity Adjustment Factor
RCAF-5 = RCAF Adjusted / PAF-5

Note: Each RCAF is rounded to 3 digits after the decimal. Productivity Adjustment Factors are always 4 digits after the decimal.

Basing Factors

10/1/80 = 102.7
 10/1/82 = 120.9
 4Q/87 = 132.2
 4Q/92 = 156.9
 4Q/97 = 173.2
 4Q/02 = 192.1
 4Q/07 = 245.9
 4Q/12r = 297.6
 4Q/17 = 264.5

**First Quarter 2018
All-Inclusive Index**

Ex Parte No. 290 (Sub-No. 5) (2018-1)

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

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

December 5, 2017

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Introduction

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

49 U.S.C. § 10708 requires the RCAF to be rebased every five years, and therefore this quarter's RCAF has been calculated to a rebased figure that uses a fourth quarter 2017 base. The basing calculation is shown on the following page 1A. Attachment A contains earlier versions of the RCAF recalculated on the 4Q2017 base for comparison purposes. In past rebasings, the new basing factor was always higher than before. That was not the case this time. The lower basing factor is the result of a huge drop in fuel prices plus falling prices for materials & supplies and lower interest rates.

This quarter's projection of railroad costs is for the first quarter 2018. Each year's first quarter calculation utilizes new health & 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.

Calculations for the Productivity Adjustment Factor (page 5) utilize the Surface Transportation Board's Productivity Adjustment decision that was served on February 24, 2017. That decision said that the Board is "tentatively adopting 1.020 (2.0% per year) as the measure of average (geometric mean) change in railroad productivity for the 2011-2015 (five-year) period." The STB expressed concern that a "change in the way distances are measured" in the 2015 Waybill Sample would skew the Output Index used in the productivity change calculation. Because of this concern, the STB developed a linking factor with the stated goal of eliminating changes to its Output Index caused by the methodology change. In a decision served March 16, the deadline for comments on the productivity change was suspended pending further order of the Board.

On September 29, 2017, the STB served another decision that proposed a second tentative productivity adjustment for the change in the railroad productivity for the 2011-2015 averaging period. This version used new data and a new linking factor. The result was a much more realistic Output Index for 2015, and a five-year geometric average change of 0.994, or -0.6 percent. Comments on this calculation were due by November 13, and replies are due by December 13, too late for this filing.

At the time of this December 5 RCAF filing, the AAR has continued to use the original productivity change to calculate the RCAF's two productivity adjustment factors. Although it appears that the STB's second calculation is more realistic, it is not considered final at the time of this filing. Thus, the possibility remains that both productivity-adjusted RCAFs could be revised.

Rebasing

The statute relating to the Rail Cost Adjustment Factor (49 U.S.C. § 10708) requires the RCAF to be rebased every five years. This means that the new base period will be the fourth quarter of 2017, since the previous base period was the fourth quarter of 2012. The calculations are shown below.

Rebasing the Denominator of the RCAF to the Fourth Quarter 2017

1. Fourth Quarter 2017 Linked Index	267.1
2. Second Quarter 2017 Linked Index	
Calculated Using Actual Data	267.4
Calculated Using Forecasted Data	<u>270.1</u>
Difference	(2.7)
3. Fourth Quarter 2017 Linked Index	
Adjusted for Second Quarter 2017 Forecast Error	264.4
Rounding Adjustment to Force 1.000	<u>0.1</u>
New Basing Factor for 2017Q4 = 100	264.5

Note: Linked Indexes on this page refer to the All Inclusive Index, 1980=100 basis.

Test of Basing Factor Fourth Quarter 2017 = 100

1. Fourth Quarter 2017 Linked Index (1980 = 100)	267.1
Divided by 2017Q4 Basing Factor	264.5
Fourth Quarter 2017 Linked Index (2017Q4 = 100)	1.010
2. Second Quarter 2017 Linked Index	
Calculated Using Actual Data (1980 = 100)	267.4
Calculated Using Forecasted Data (1980 = 100)	270.1
Divide both by 2017Q4 Basing Factor	264.5
Calculated Using Actual Data (2017Q4 = 100)	1.011
Calculated Using Forecasted Data (2017Q4 = 100)	<u>1.021</u>
Difference (Forecast Error Adjustment)	(0.010)
3. Fourth Quarter 2017 Linked Index (2017Q4 = 100)	
Adjusted for Second Quarter 2017 Forecast Error	1.000

Note: Fourth Quarter 2017 Linked Index (2017Q4 = 100), after forecast error adjustment, must equal 1.000.

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 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 2016 (current) and 2015 (previous) weights are shown below. Weights calculated from 2015 data were used for the fourth quarter of 2016 through the third quarter of 2017. Beginning with the fourth quarter of 2017, weights calculated using 2016 data are used.

Traffic and fuel prices were down again in 2016, causing expenses for most categories to decline. The Fuel and Materials & Supplies categories had double-digit percentage decreases in expenses, and this caused them to be the two categories that had decreases in weights. Depreciation and Interest, the two categories with increased expenses in 2016, had increases in their weights. While Labor, Equipment Rents, and Other all had 5 to 6 percent decreases in expenses, their weights increased because of the larger drops for Fuel and Materials & Supplies. Weights for Labor and Other are the highest they have been since 2004, while Fuel's weight is the lowest it has been since 2003. Depreciation's weight, perhaps pushed by recent spending for Positive Train Control, is the highest it has ever been.

Weights for RCAF's All-Inclusive Index		
	2016	2015
Labor	35.6 %	35.0 %
Fuel	10.7	13.4
Materials & Supplies	5.0	5.4
Equipment Rents	5.9	5.8
Depreciation	15.6	13.9
Interest	2.2	1.9
Other	25.0	24.6
Total	100.0	100.0

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

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

All-Inclusive Index First Quarter 2018

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		
	2016 Weights	Previous 2017Q4	Current 2018Q1	Percent Change
1. Labor	35.6%	415.1	423.8	2.1 %
2. Fuel	10.7%	215.5	248.4	15.3
3. M&S	5.0%	254.8	251.0	-1.5
4. Equipment Rents	5.9%	223.9	226.7	1.3
5. Depreciation	15.6%	226.3	226.8	0.2
6. Interest	2.2%	60.5	60.5	0.0
7. Other	25.0%	221.4	226.9	2.5
8. Weighted Average				
a. 1980 = 100		288.8	296.8	
b. 1980 = 100 (linked)		267.1	274.5 ¹	
c. 4Q17 = 100		101.0	103.8 ²	2.8

Note:

As required every five years, this index has been rebased. In this case, the new basis is 4Q17 = 100 (where 2017Q4 equals 100.0 after the forecast error adjustment). For the purpose of this calculation, 2017Q4 has been recalculated using the 4Q17 base in item 8c. Items 1 through 8b are unchanged. See page 1A and Attachment A in this filing for more detail.

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

$$= (296.8 / 288.8) \times 267.1$$

$$= 274.5$$

² To calculate the 4Q17 = 100 index:
Index4Q17 = (Current Linked Index / 4Q17 Basing Factor) * 100

$$= 274.5 \text{ divided by } 264.5 \text{ times } 100$$

$$= 103.8$$

Indexes based on other periods:

4Q12 based index = 274.5 / 297.6 x 100 = 92.2
4Q07 based index = 274.5 / 245.9 x 100 = 111.6
4Q02 based index = 274.5 / 192.1 x 100 = 142.9
4Q97 based index = 274.5 / 173.2 x 100 = 158.5
4Q92 based index = 274.5 / 156.9 x 100 = 175.0

Forecast vs. Actual All-Inclusive Index Third Quarter 2017

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 100.5 is 1.1 index points below the forecast value of 101.6. Therefore, the forecast error adjustment for first quarter 2018 is -1.1 index points.

	2015 Weights	Third Quarter 2017		Amt Difference
		Forecast	Actual	
1. Labor	35.0%	422.8	422.8	
2. Fuel	13.4%	202.3	192.4	
3. M&S	5.4%	252.6	252.6	
4. Equipment Rents ¹	5.8%	223.8	224.2	
5. Depreciation	13.9%	225.1	226.3	
6. Interest	1.9%	60.6	60.6	
7. Other	24.6%	224.3	223.5	
8. Weighted Average				
a. 1980 = 100		289.3	288.0	
b. 1980 = 100 (linked)		268.7	265.7 ²	
c. 4Q17 = 100 ³		101.6	100.5	-1.1

Forecast error —————→ **-1.1 index points**

Note: As required every five years, this index has been rebased. In this case, the new basis is 4Q17 = 100 (where 2017Q4 equals 100.0 after the forecast error adjustment). For the purpose of this calculation, 2017Q4 has been recalculated using the 4Q17 base in item 8c. Items 1 through 8b are unchanged. See page 1A and Attachment A in this filing for more detail.

¹	2015 Weights	Third Quarter 2017	
		Forecast	Actual
Car-Hire	58.2%	204.5	205.2
Lease Rentals	41.8%	224.3	223.5
Weighted Average		212.8	212.8
Weighted Average (linked)		223.8	224.2

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

$$265.7 = 288.0 / 289.8 \times 267.4$$

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

Productivity

On February 24, 2017, the Surface Transportation Board (STB) served a decision in Ex Parte 290 (Sub-No. 4) which *tentatively* adopted 2.0 percent as the geometric average productivity change for the five most recent years available. Their calculation added the year 2015 and removed the year 2010. It should be noted that the Board was concerned enough with its decision to calculate a tentative value, sponsor a technical conference, solicit public comment, and to state that it would "take further action, as appropriate, to determine whether the tentative productivity adjustment is final or requires modification".

On September 29, the STB served another decision with a differing (and more realistic) productivity change that was called tentative. At the time (December 5) of this filing, we have still used the original (and probably incorrect) productivity change, because reply comments on the new version are not due until December 13. The Board stated that its productivity adjustment "will not become effective until the Board has had the opportunity to consider comments....." Therefore, it is probable that the Productivity Adjustment Factors used with the RCAF will change.

The components of this average annual value are shown on the following table in ratio format – therefore, 1.020 is the same as an increase of 2.0 percent. Productivity changes are calculated by multiplying each of the five productivity changes together and taking the result to the one-fifth power. The productivity adjustment factors (PAF) for each quarter are calculated by increasing the previous quarter's PAF by quarterly versions of the annual rate, which are the fourth root of the geometric average annual growth rate. The difference between the PAF and the PAF-5 is the timing of the five-year productivity trend.

Comparison of Output, Input, & Productivity			
2011 - 2015			
Year	Output Index (1)	Input Index (2)	Productivity Changes (3)
2011	1.041	1.039	1.001
2012	1.007	0.999	1.008
2013	1.022	1.018	1.003 *
2014	1.055	1.036	1.018
2015	1.041	0.972	1.070
Average			1.020
Previous Average (2010-2014)			1.014

* The STB revised this number in its February 24, 2017, corrected decision.

Calculation of PAF and PAF-5				
For 2011-2015, use fourth root of avg. productivity change = 1.0050				
For 2010-2014, use fourth root of avg. productivity change = 1.0035				
Quarter	Year	PAF	PAF-5	
Q1	2017	2.3833	2.5147	← 2010-2014
Q2	2017	2.3952	2.5235	← 2011-2015
Q3	2017	2.4072	2.5323	
Q4	2017	2.4192	2.5412	
Q1	2018	2.4313	2.5539	

The PAF and PAF-5 based on 2011-2015 could be revised, possibly affecting the RCAF-A for 2017Q2-2018Q1, and the RCAF-5 for 2018Q1

Additional Information on Productivity

On February 24, 2017, the Surface Transportation Board (STB) served a decision in Ex Parte 290 (Sub-No. 4) which *tentatively* adopted 2.0 percent as the geometric average productivity change for the five most recent years available. Their calculation added the year 2015 and removed the year 2010. On September 29, the STB served another decision with a differing (and more realistic) productivity change called tentative, that "**will not become effective until the Board has had the opportunity to consider comments submitted by parties.**" **This (September 29 version) productivity change has not been used in this December 5 filing, and is being provided herein only as information.** It is not known if the STB will decide to use this productivity change instead of that calculated in its decision served February 24, and it is not known if earlier quarters that used the February 24 version will be restated.

The components of this possible average annual value are shown on the following table in ratio format – therefore, 0.994 is the same as a decrease of 0.6 percent. Productivity changes are calculated by multiplying each of the five productivity changes together and taking the result to the one-fifth power. The first table below (Comparison....) matches the STB's Table B in their September 29 decision, **but it is not effective as of December 5, 2017**. The second table (Calculation....) contains productivity adjustment factors (PAF) for each quarter based on the previous (2010-2014) average and **what would result** if the September 29 average (2011-2015) had been used. The factors 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 2011 - 2015			
Year	Output Index (1)	Input Index (2)	Productivity Changes (3)
2011	1.041	1.039	1.001
2012	1.007	0.999	1.008
2013	1.022	1.018	1.003 *
2014	1.055	1.036	1.018
2015	0.913	0.972	0.939
Average			0.994
Previous Average (2010-2014)			1.014

* The STB revised this number in its February 24, 2017, corrected decision.

Calculation of Possible PAF and PAF-5				
For 2011-2015, use fourth root of avg. productivity change = 0.9985				
For 2010-2014, use fourth root of avg. productivity change = 1.0035				
The shaded and italicized PAF and PAF-5 are the numbers that would result if the STB decided to replace the productivity change from its February 24 decision with the tentative productivity change from its September 29, 2017 decision.	Quarter	Year	PAF	PAF-5
	Q1	2017	2.3833	2.5147
	Q2	2017	2.3797	2.5235
	Q3	2017	2.3761	2.5323
	Q4	2017	2.3725	2.5412
	Q1	2018	2.3689	2.5374

Rail Cost Adjustment Factor

First Quarter 2018

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 the **All-Inclusive Index is now on a 2017Q4=100 basis**.

	Previous 2017Q4	Current 2018Q1	Percent Change
All-Inclusive Index ¹	101.0	103.8	2.8
Preliminary RCAF ²	1.010	1.038	2.8
Forecast Error Adjustment ³	<u>-0.010</u>	<u>-0.011</u>	
RCAF (Unadjusted) ⁴	1.000	1.027	2.7
Productivity Adjustment Factor ⁵	<u>2.4192</u>	<u>2.4313</u>	
RCAF (Adjusted) ⁶	0.413	0.422	2.2
PAF-5 ⁷	2.5412	2.5539	
RCAF-5 ⁸	0.394	0.402	2.0

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 2018

The first quarter 2018 Labor Index increased 2.1 percent from the previous quarter. The increase was caused by five new national labor agreements.

Wage Rate Index

The Wage Rate Index portion of the Labor Index is 3.5 percent higher than the previous quarter. New labor agreements with retroactive wage increases caused the increase.

New National Agreements: On October 6, 2017, a group of railroad unions called the Coordinated Bargaining Group announced a tentative national agreement. The unions involved are the ATDA, BLET, BRS, IBBM, NCFO, and SMART-TD¹. The first wage increase, effective January 2015, was received at that time, and was mutually negotiated to apply as the first increase in this new five-year agreement. The new agreement also has two retroactive (July 2016 and July 2017) wage increases of 2 percent. The future wage increases (July 2018 and July 2019) are for 2.5 and 3.0 percent, respectively. At this time (December 4), the AAR has received signed copies of ratified agreements for ATDA, BLET, BRS, and SMART-TD (including the Yardmasters), so these have been added to the index.

Wage Increases: There are no national union wage increases scheduled for the first quarter 2018. However, the five new national labor agreements have two retroactive general wage increases, and those have been applied to the index effective January 1, 2018. Non-union employees, following past index procedure, are being assigned a 2 percent general wage increase effective January 1, 2018. This matches the July 2017 wage increase to be received by the unions that signed the new labor agreements.² A few independent labor agreements have cost of living allowance increases of 16 cents effective January 1.

Lump Sums: The first quarter lump sum rate is up by 0.1 cents from the previous quarter. One amount was added for a railroad's quarterly performance incentive payment, which effectively offset the performance incentive from one year ago that became completely amortized and removed from the rate.³ However, the 13-Week U.S. Treasury bill rate at the November 27 auction was at a 52-week high – and this higher rate caused the 0.1 cent increase.

Back Pay: The first quarter back pay rate jumped from 1.1 cents to 61.5 cents because of the retroactive wage increases in the five new labor agreements. The back pay amounts were the result of a 2 percent wage increase retroactive to July 1, 2016, and a second increase retroactive to July 1, 2017. Two of the unions involved are among the largest railroad unions: the BLET and SMART-TD. Although the new back pay rate is much higher than it has been in recent years, it is much lower than the rate in 2012 (\$1.092 for 2012Q3) when more unions had retroactive increases in new agreements.

¹ The SMART-TD (International Association of Sheet Metal, Air, Rail and Transportation Workers, Transportation Division) represents workers previously represented by the UTU (conductors, brakemen, etc.). Like the UTU, it also has a Yardmasters Department. See Appendix H.

² The Interstate Commerce Commission decided in 1987 that "it is appropriate" to assign a wage increase, similar to unionized employees, to employees not covered by a labor contract.

³ Index procedure, decided by the Interstate Commerce Commission in 1988, is to amortize lump sums and/or back pay over four quarters using the rates for 13-week (a.k.a. 3-month) U.S. Treasury bills.

Labor

First Quarter 2018

Other: In wages, "Other" contains the amortization of incentive compensation payments that a large railroad makes each year to its dispatchers, yardmasters, and locomotive engineers. This rate is unchanged from the previous quarter.

Supplements Index

The Supplements Index increased 0.4 percent. Factors affecting supplements such as health & welfare premiums, payroll tax rates, and maximum taxable earnings, are typically adjusted on January 1. Higher taxable earnings, partially offset by lower health & welfare costs, caused the higher rate.

Health & Welfare: The Health & Welfare rate decreased 3.2 percent. New employer contributions (premiums) will go into effect January 1. (See pages 4 and 5 of this appendix.) Although supplemental sickness rates increased, lower rates for group health and early retirement major medical caused the overall rate to decline. Employee health & welfare cost sharing was unchanged.

Railroad Retirement: The Railroad Retirement rate increased by 23.9 cents (or 2.9 percent). Most of the change was caused by higher taxable earnings resulting from new labor agreements that increased wages and caused back pay. In addition, the maximum taxable earnings for Railroad Retirement's Tier I and Tier II increased for 2018. Tax rates (for employers) did not change. Page 4 of this appendix lists tax rates and maximum taxable earnings for 2016 through 2018.

Unemployment Insurance: The Unemployment Insurance rate is 4.1 cents higher than the previous quarter. Maximum taxable earnings and the tax rate both increased for 2018. Basic tax rates range from a minimum of 0.65 percent to a maximum of 12 percent. However, if the Railroad Unemployment Insurance Account balance falls below a certain threshold, a surcharge can be imposed. For 2018 (like 2017 and 2016), a surcharge of 1.5 percent will be used – meaning that no railroad will have a tax rate less than 2.15 percent. The tax rate is experience-rated, and monthly Class I railroad employee counts have been lower in recent months – meaning higher unemployment (although some of the decline was caused by retirements that were not replaced). The weighted average Class I railroad rate for 2018 is 3.76 percent compared to 3.37 percent for 2017. Page 4 of this appendix lists tax rates and maximum taxable earnings for 2016 through 2018. The last year with no surcharge was 2014.

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 6.3 cents higher. The higher rate was caused mostly by one railroad's annual stock awards.

Labor Index Calculation

As shown in Table A-1 on the next page, a higher Wage Rate Index and a higher Supplements Index combined to cause a 2.1 percent increase for the Labor Index. The linked first quarter 2018 Labor Index is 423.8, which is 0.6 percent higher than one year ago.

Labor

First Quarter 2018

Table A-1 Labor Index

	2017Q4	2018Q1	Change	
			Percent	Amount
<u>Base Wage</u> – Straight Time & Pay For Time Not Worked	\$40.058	\$40.852	2.0%	\$0.794
Adjustments:				
Lump Sum	0.312	0.313	0.3%	\$0.001
Back Pay	0.011	0.615	5490.9%	\$0.604
Other	0.136	0.136	0.0%	\$0.000
Total Wages	<u>40.517</u>	<u>41.916</u>	3.5%	\$1.399
Health & Welfare Benefits	8.793	8.515	-3.2%	-\$0.278
RR Retirement & Medicare	8.345	8.584	2.9%	\$0.239
Unemployment Insurance	0.323	0.364	12.7%	\$0.041
Other	0.136	0.199	46.3%	\$0.063
Total Supplements	<u>\$17.597</u>	<u>\$17.662</u>	0.4%	\$0.065
Total Labor (as info only)	\$58.114	\$59.578		
Wage Index¹	346.7	358.7	3.5%	
Supplements Index²	650.3	652.7	0.4%	
Total labor Index, 2016 Weights ³	435.4	444.5		
Labor Index (linked)⁴	415.1	423.8	2.1%	

¹ 1980 wage rate \$11.685

² 1980 supplements rate \$2.706

³ 2016 weights: wages, supplements 70.8% 29.2%

⁴ 2018Q1 linked Index = 2017Q4 linked x (2018Q1 / 2017Q4)
 = 415.1 x 444.5 / 435.4

Labor

First Quarter 2018

Supplement Comparisons

Health and Welfare Rates

Plan	Railroad Payment Per Employee Per Month				
	2016	2017	2018	Change	
				'16-'17	'17-'18
Group Health & Welfare	\$1,481.05	\$1,693.72	\$1,662.44	14.4%	-1.8%
Early Retirement Major Medical	134.70	166.75	139.97	23.8%	-16.1%
Group Dental	56.97	65.12	63.67	14.3%	-2.2%
Group Vision	8.41	8.44	8.44	0.4%	0.0%
Supplemental Sickness					
Maintenance of Way	32.87	40.00	51.63	21.7%	29.1%
Shop Crafts	49.11	60.00	75.48	22.2%	25.8%
Signalmen	29.48	37.00	44.34	25.5%	19.8%
Yardmasters	34.22	34.22	34.22	0.0%	0.0%

Railroad Retirement and Medicare

	Earnings Base			Employer Rate		
	2016	2017	2018	2016	2017	2018
Tier I	\$118,500	\$127,200	\$128,700	6.20%	6.20%	6.20%
Tier II	88,200	94,500	95,400	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		
2016	2017	2018	2016	2017	2018
\$1,455	\$1,545	\$1,560	2.73%	3.37%	3.76%

Labor

First Quarter 2018

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@rmrlc.org

November 17, 2017

Mr. Clyde Crimmel
Director Statistical Information
Policy & Communications Department
AAR-5th Floor
50 F Street N.W.
Washington, D.C. 20009

Dear Mr. Crimmel:

The revised employer Payment Rates which are effective January 1, 2018 are as follows:

Railroad Employees National Health & Welfare Plan & National Railway Carriers/United Transportation Union H&W Plan Non-Hospital Road	\$1,662.44
Railroad Employees National Early Retirement Major Medical Benefit Plan Non-Hospital Road	\$ 139.97
Aetna - National Dental Plan	\$ 63.67
Aetna - Supplemental Sickness Plans	
ShopCrafts	\$ 75.48
Signalmen	\$ 44.34
Maintenance of Way	\$ 51.63
Trustmark - Supplemental Sickness Plans Yardmasters	\$ 34.22
EyeMed - National Vision Plan	\$ 8.44

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

Very truly yours,



Susan E. Parks

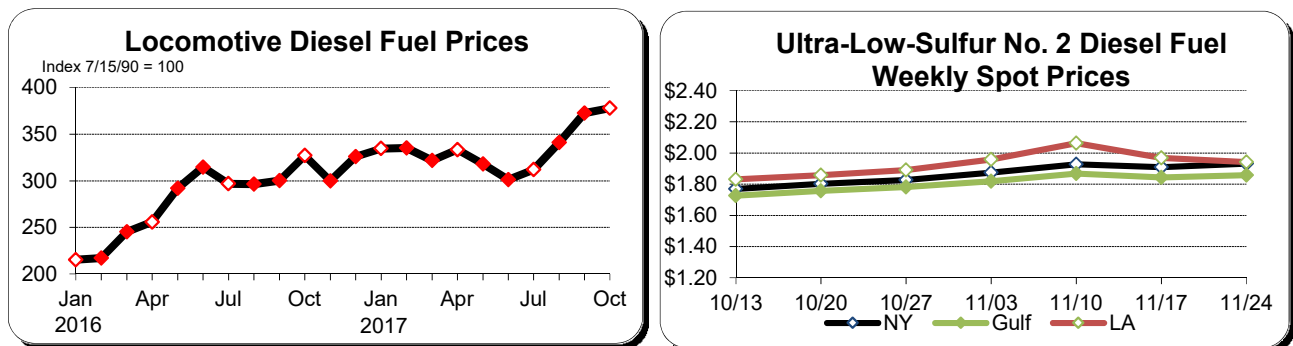
cc: Glen Williams

Fuel

First Quarter 2018

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 for January 2016 was the lowest in over 10 years. Since that time, prices have trended upward. While average prices for locomotive diesel fuel are available only through October 2017, data through four weeks of November are available for related fuel types. According to the Energy Information Administration, weekly spot prices for Ultra-Low-Sulfur Diesel Fuel* for the week ended November 24 are higher than they were in mid-October. Heating oil prices were also up, and inventories are down.* The chart below (on left) shows the AAR's Monthly Locomotive Diesel Fuel Price Index from January 2016 through October 2017. The second chart (on right) shows recent spot prices for Ultra-Low-Sulfur No. 2 Diesel Fuel as reported by the Energy Information Administration.



Recent crude oil prices have been rising, and this should continue after the Organization of the Petroleum Exporting Countries (OPEC) extended its output cuts.** Recent daily spot prices for Ultra-Low-Sulfur No. 2 diesel fuel were already 5 to 8 percent higher than their October average. Railroads expect higher prices for locomotive diesel fuel. Prices for Q1 (January 2018) are expected to be 6.5 percent higher than the average price railroads actually paid in October. Because the Q4 (October) forecast was too low, the Q1 forecast is 15.3 percent higher than the previous (Q4) forecast.

Forecast Fuel Index (1980 = 100)	248.4
Change from previous quarter forecast	15.3%
Change from previous quarter actual	6.5%

* 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.

** Diesel fuel used by locomotives is made from refined crude oil, and therefore usually has some price correlation.

Materials & Supplies

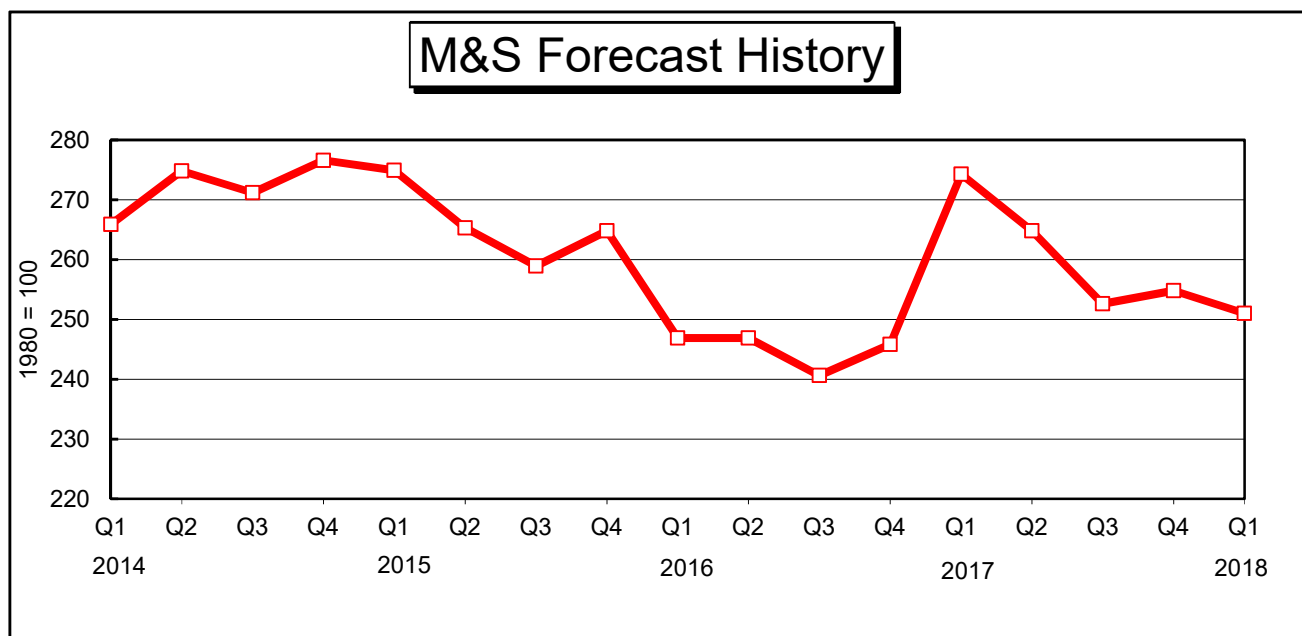
First Quarter 2018

The first quarter 2018 Materials & Supplies Index is down 1.5 percent from the previous quarter. The Metal Products Index, which has the largest weight of the three components, rose 1.8 percent. However, the other component indices declined. The Index for Forest Products fell 4.6 percent, while Miscellaneous Products dropped 3.3 percent. The current Materials & Supplies Index is lower than its values for all of 2014 and 2015.

2018Q1 Materials & Supplies Index = 251.0

2017Q4 Materials & Supplies Index = 254.8

Difference	-3.8 basis points
	or
	-1.5 %



Equipment Rents

First Quarter 2018

The Equipment Rents Index consists of two components – car hire and lease rentals. The methodology 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. In each fourth quarter filing, new weights for the four categories are used based on annual report data. The standard linking procedure is used to eliminate any changes to the Car Hire Index that would be caused solely by changing weights.

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 0.3 percent because of higher rates for auto racks and privately-owned cars. A 2.5 percent increase for the projected PPI-LF (See Appendix G) used as a proxy for Lease Rentals, combined with the 0.3 percent increase for Car Hire, caused the Equipment Rents Index to increase by 1.3 percent.

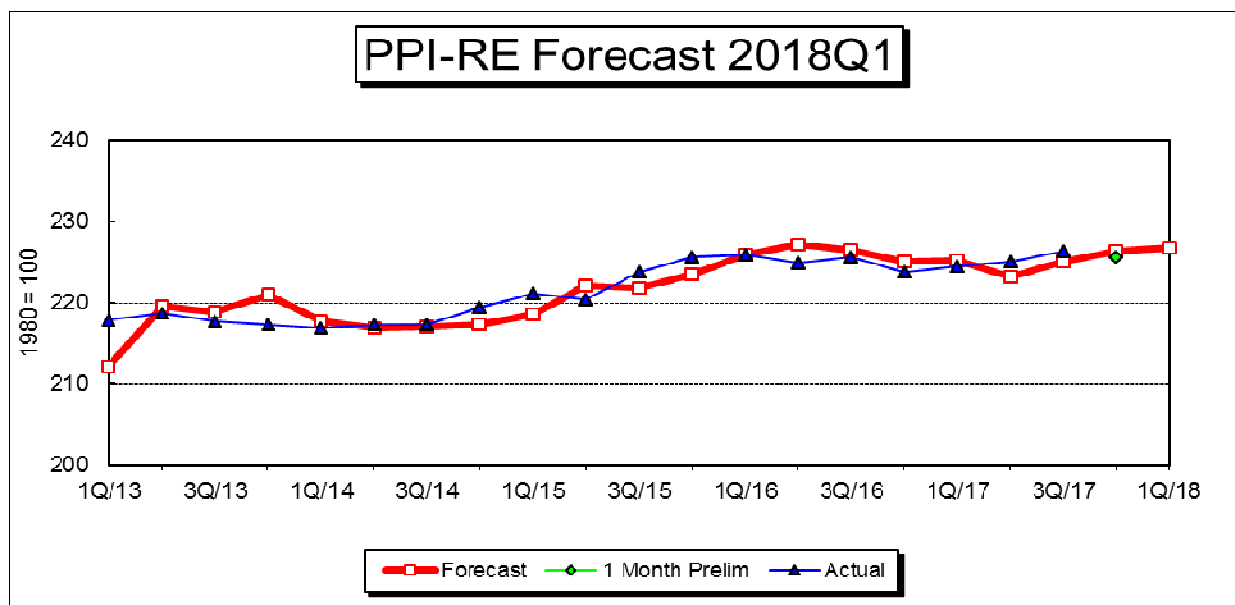
	2016			Percent
	Weight	2017Q4	2018Q1	Change
Car Hire	58.3%	206.9	207.5	0.3 %
Lease Rentals	41.7%	221.4	226.9	2.5
Weighted Average		212.9	215.6	1.3
Weighted Average (Linked)		223.9	226.7	1.3

Depreciation

First Quarter 2018

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 a 0.2 percent increase from the previous quarter's forecast, and reflects monthly values that have changed very little during the last few months.

Forecast of Depreciation Index (1982=100)	205.0
Forecast of Depreciation Index (1980=100)	226.8
Change from previous quarter forecast	0.2%
Change from actual first month of previous quarter	0.5%
Change from same quarter of prior year (actual)	1.0%



Depreciation

First Quarter 2018

PPI RAILROAD EQUIPMENT

Using rule-based logic, the program narrowed down the choice to exponential smoothing or Box-Jenkins. The program performed an out-of-sample test to select between these two approaches. The rolling out-of-sample test used a maximum horizon of 12 and generated 78 forecasts for each method. The cumulative MAD for Exponential smoothing was 0.92, and for Box-Jenkins was 1.26.

Based on the lower Mean Absolute Deviation, Exponential Smoothing was selected.

Forecast Model for PPIRE

Holt exponential smoothing: Linear trend, No seasonality
LN(0.675, 0.018)

Component	Smoothing Wgt	Final Value
Level	0.67550	204.2
Trend	0.01794	0.1834

Within-Sample Statistics

Sample size	72	No. parameters	2
Mean	198.63	Std. deviation	4.81
R-square	0.96	Adj. R-square	0.96
Durbin-Watson	1.99	Ljung-Box(18)	16.00 P=0.40
Forecast error	1.00	BIC	1.05
MAPE	0.36	SMAPE	0.36
RMSE	0.99	MAD	0.72
MAD/Mean Ratio	0.00		

Actual Values for the Most Recent 6 Periods:

Date	Actual
2017-May	203.5
2017-Jun	204.6
2017-Jul	204.6
2017-Aug	204.6
2017-Sep	204.6
2017-Oct	203.9

Forecasted Values

Date	2.5 Lower	Forecast	97.5 Upper
2017-Nov	202.343	204.401	206.459
2017-Dec	202.087	204.584	207.082
2018-Jan	201.897	204.768	207.638
2018-Feb	201.751	204.951	208.151
2018-Mar	201.635	205.134	208.634
QTR AVG	201.761	204.951	208.141

Interest

First Quarter 2018

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 2016 data, and was updated in the Q4 filing submitted on September 5, 2017. The Interest Index based on 2016 is at an all-time low. Although the index is based on embedded rates instead of entirely on current market conditions, it is no coincidence that rates for U.S. 20-year bonds are also at their lowest over the last 25 years.

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. Line numbers listed below will have some differences from previous years because the Surface Transportation Board changed some of the line numbers and account definitions.

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

2016	Interest Rate	4.75%
1980	Interest Rate	7.85%
2018Q1	Interest Index	60.5
2017Q4	Interest Index	60.5
	Percent Change	0.0%

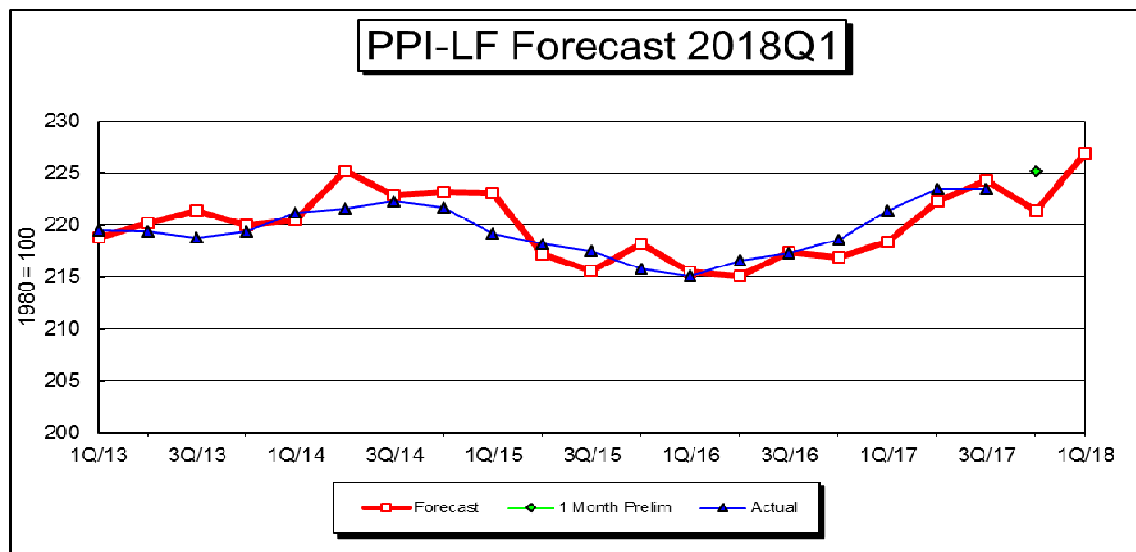
Other Expenses

First Quarter 2018

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. Monthly PPI-LF figures had small increases over the last three months. Over half of the increase in the forecast was caused by a Q4 forecast that was too low.

Forecast of Other Expense Index (1982=100)	202.4
Forecast of Other Expense Index (1980=100)	226.9
Change from previous quarter forecast	2.5%
Change from actual first month of previous quarter	0.8%
Change from same quarter of prior year (actual)	2.5%



Other Expenses

First Quarter 2018

PPI INDUSTRIAL COMMODITIES LESS FUELS AND RELATED PRODUCTS AND POWER

Using rule-based logic, the program narrowed down the choice to exponential smoothing or Box-Jenkins. An out-of-sample test was used to select between these two approaches.

A rolling out-of-sample test used a maximum horizon of 12 and generated 78 forecasts for each method.

Cumulative MAD: Exponential smoothing = 1.94; Box-Jenkins = 1.81.

Based on the lower Mean Absolute Deviation, Box-Jenkins was selected.

Forecast Model for PPILF

Box-Jenkins

ARIMA(1, 1, 0)

Model Details

Term	Coefficient	Std. Error	t-Statistic	Significance
a[1]	0.5962	0.09902	6.021	1

Within-Sample Statistics

Sample size	72	No. parameters	1
Mean	195.54	Std. deviation	2.19
R-square	0.95	Adj. R-square	0.95
Durbin-Watson	1.88	Ljung-Box(18)	22.4 P=0.78
Forecast error	0.47	BIC	0.48
MAPE	0.18	SMAPE	0.19
RMSE	0.47	MAD	0.36
MAD/Mean Ratio	0		

Actual Values for the Most Recent 6 Periods:

Date	Actual
2017-May	199.2
2017-Jun	199.4
2017-Jul	199.0
2017-Aug	199.5
2017-Sep	199.7
2017-Oct	200.9

Forecasted Values

Date	2.5 Lower	Forecast	97.5 Upper
2017-Nov	200.688	201.615	202.543
2017-Dec	200.295	202.042	203.789
2018-Jan	199.780	202.296	204.812
2018-Feb	199.229	202.448	205.666
2018-Mar	198.682	202.538	206.395
QTR AVG	0	202.427	205.624

Railroad and Union Abbreviations

First Quarter 2018

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.)

Note: A portion of the DM&E was sold during 2014.

Note: The sale of the southern portion of the D&H received regulatory approval on May 15, 2015.

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*
SMW	Sheet Metal Workers' International Association
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)
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.

AAR Workpapers Sent to STB for 2018 Q1 RCAF

December 5, 2017

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. 2018/Q1 RCAF Lump Sum Amortization summary, public version (1 page)
7. 2018/Q1 RCAF Back Pay Amortization summary, public version (1 page)
8. Back Pay calculation for National SMART-TD (formerly UTU)
9. Back Pay calculation for National SMART-TD Yardmasters Department (formerly UTU-YMD)
Note: calculations for other unions not included herein because of individual RR data
10. Health & Welfare worksheet (1 page)
11. Railroad Retirement spreadsheet (5 pages)
12. 2018 Tax Rates and Maximum Taxable Earnings from Railroad Retirement Board
13. Unemployment Insurance Tax worksheet (1 page)
14. 2-page SAS run for 2018 Q1 Unemployment Insurance Tax
15. Unemployment Insurance Tax Rate for 2018 memo and RRB Maximum Taxable Earnings
16. 2 pages from EIA including spot prices for various distillates
17. Summary of Materials & Supplies - "U.S. Summary by Composition Category" (1 page)
18. RCAF Car Hire Forecast Spreadsheet for Equipment Rents (2 pages) plus source data page
19. 5 pages of PPI-RE for Depreciation including graph page, input/output, and BLS source data
20. 5 pages of PPI-LF for Other (and Lease Rentals) incl. graph page, input/output, BLS source data
21. Forecast Error calc. and workpapers (10 pages: calc, index actual, fuel, 3 car hire, 2 deprec, 2 other)
22. New National Labor Agreement pages (GWI, ECS, signatures, participants) 33 pages

RCAF All-Inclusive Index's Labor Index Based on 2016 Benchmarks

	16 Wts.	3Q/17	3Q/17 Rebenchd As Info Only	% Chg	4Q/17	% Chg	1Q/18	% Chg	2Q/18	% Chg	3Q/18	% Chg
Straight Time		\$33.734	\$33.547	-0.6%	\$33.547	-0.6%	\$34.205	2.0%		--		--
PFTNW		\$6.987	\$6.511	-6.8%	\$6.511	-6.8%	\$6.647	2.1%		--		--
Total		\$40.721	\$40.058	-1.6%	\$40.058	-1.6%	\$40.852	2.0%	\$0.000	--	\$0.000	--
Adjustments												
Lump Sum		\$0.284	\$0.311		\$0.312		\$0.313					
Back Pay		\$0.010	\$0.011		\$0.011		\$0.615					
Other		\$0.124	\$0.135		\$0.136		\$0.136					
Total Wages		\$41.139	\$40.515	-1.5%	\$40.517	-1.5%	\$41.916	3.5%	\$0.000	--	\$0.000	--
Pre-Tax Reduction		(\$1.364)	(\$1.361)		(\$1.361)		(\$1.361)					
Taxable Wages		\$39.775	\$39.154		\$39.156		\$40.555		\$0.000		\$0.000	
H & W		\$8.851	\$8.793	-0.7%	\$8.793	-0.7%	\$8.515	-3.2%		--		--
RR Ret & Medicare		\$8.554	\$8.344	-2.5%	\$8.345	-2.4%	\$8.584	2.9%		--		--
Unemp. Insurance		\$0.321	\$0.323	0.6%	\$0.323	0.6%	\$0.364	12.7%		--		--
Other		\$0.275	\$0.301	9.5%	\$0.136	-50.5%	\$0.199	46.3%		--		--
Total		\$18.001	\$17.761	-1.3%	\$17.597	-2.2%	\$17.662	0.4%	\$0.000	--	\$0.000	--
Adjustments												
Total Supplements		\$18.001	\$17.761	-1.3%	\$17.597	-2.2%	\$17.662	0.4%	\$0.000	--	\$0.000	--
Total Labor		\$59.140	\$58.276	-1.5%	\$58.114	-1.7%	\$59.578	2.5%	\$0.000	--	\$0.000	--
Wage Rate Index	0.7080	352.1	346.7	-1.5%	346.7	-1.5%	358.7	3.5%	0.0	--	0.0	--
Supplements Index	0.2920	665.2	656.4	-1.3%	650.3	-2.2%	652.7	0.4%	0.0	--	0.0	--
Total Labor Index '15 Wts.		441.3										
Total Labor Index '16 Wts.		443.5	437.1	-1.4%	435.4	-1.8%	444.5	2.1%	0.0	--	0.0	--
Labor Index (Linked)		422.8			415.1	-1.8%	423.8	2.1%	0.0	#####	#DIV/0!	--

All Inclusive Index and RCAF using 2016 Benchmarks and Weights

			16 Wts.									
	16 Wts.	3Q/17	3Q/17	% Chg	4Q/17	% Chg	1Q/18	% Chg	2Q/18	% Chg	3Q/18	% Chg
Labor	0.356	422.80	422.8	0.0%	415.1	-1.8%	423.8	2.1%	0.0 #####		#DIV/0!	--
Fuel	0.107	202.30	202.3	0.0%	215.5	6.5%	248.4	15.3%		--		--
M&S	0.050	252.60	252.6	0.0%	254.8	0.9%	251.0	-1.5%		--		--
Equip. Rents	0.059	223.80	223.8	0.0%	223.9	0.0%	226.7	1.3%	0.0 #####		#DIV/0!	--
Depreciation	0.156	225.10	225.1	0.0%	226.3	0.5%	226.8	0.2%		--		--
Interest	0.022	60.60	60.6	0.0%	60.5	-0.2%	60.5	0.0%	60.5	0.0%	60.5	0.0%
Other	0.250	224.30	224.3	0.0%	221.4	-1.3%	226.9	2.5%		--		--
Weighted Avg.	1.000	289.30	290.5	0.4%	288.8	-0.6%	296.8	2.8%	1.3	-99.6%	#DIV/0!	--
Linked		268.70			267.1	-0.6%	274.5	2.8%	1.2	-99.6%	#DIV/0!	--
	Basing Factor											
10/1/80 basis	102.7	261.6			260.1	-0.6%	267.3	2.8%	1.2	-99.6%	#DIV/0!	--
10/1/82	120.9	222.2			220.9	-0.6%	227.0	2.8%	1.0	-99.6%	#DIV/0!	--
4Q/87	132.2	203.3			202.0	-0.6%	207.6	2.8%	0.9	-99.6%	#DIV/0!	--
4Q/92	156.9	171.3			170.2	-0.6%	175.0	2.8%	0.8	-99.5%	#DIV/0!	--
4Q/97	173.2	155.1			154.2	-0.6%	158.5	2.8%	0.7	-99.6%	#DIV/0!	--
4Q/02	192.1	139.9			139.0	-0.6%	142.9	2.8%	0.6	-99.6%	#DIV/0!	--
4Q/07	245.9	109.3			108.6	-0.6%	111.6	2.8%	0.5	-99.6%	#DIV/0!	--
4Q/12	297.6	90.3			89.8	-0.6%	92.2	2.7%	0.4	-99.6%	#DIV/0!	--
4Q/17 basis	264.5	101.6			101.0	-0.6%	103.8	2.8%	0.5	-99.5%	#DIV/0!	--
Car Hire	0.583	204.50	204.5	0.0%	206.9	1.2%	207.5	0.3%		--		--
Lease Rents	0.417	224.30	224.3	0.0%	221.4	-1.3%	226.9	2.5%	0.0	--	0.0	--
Weighted Avg Eq Rents		212.80	212.8	0.0%	212.9	0.0%	215.6	1.3%	0.0	--	0.0	--
Linked Equipment Rents		223.80			223.9	0.0%	226.7	1.3%	0.0 #####		#DIV/0!	--
Preliminary RCAF		1.016			1.010	-0.59%	1.038	2.8%	0.005	-99.5%	#DIV/0!	--
Forecast Error Adj.		0.000			(0.010)		(0.011)					
RCAF Unadjusted		1.016			1.000	-1.57%	1.027	2.7%	0.005	-99.5%	#DIV/0!	--
PAF		2.4072			2.4192	0.50%	2.4313	0.50%		--		--
RCAF Adjusted		0.422			0.413	-2.13%	0.422	2.2%	#DIV/0!	--	#DIV/0!	--
PAF-5		2.5323			2.5412	0.35%	2.5539	0.50%		--		--
RCAF-5		0.401			0.394	-1.75%	0.402	2.0%	#DIV/0!	--	#DIV/0!	--

Hourly Rate for 2018 Q1

Straight Time and Time Paid For But Not Worked

2018Q1 Straight Time Hourly Rate (from national spreadsheet) **\$34.036**

New National Labor Agreements for some unions, which include two retroactive GWIs of 2%

Adjustments to 2016 base:

Adjustments added 2017 Q1

CN Railroads	A few COLAs and GWIs	0.006
Misc. Indep BLET, dispatchers, yardmasters	No change	0.000
Soo Corp.	No change	0.000

Adjustments added 2017 Q2

CN Railroads	No change	0.000
Misc. Indep BLET, dispatchers, yardmasters	No change	0.000
Soo Corp.	No change	0.000

Adjustments added 2017 Q3

CN Railroads	A few COLAs and GWIs	0.001
Misc. Indep BLET, dispatchers, yardmasters	3% GWI for 1 RR's BLET	0.026
Soo Corp.	No change	0.000

Adjustments added 2017 Q4

CN Railroads	No change	0.000
Misc. Indep BLET, dispatchers, yardmasters	No change	0.000
Soo Corp.	No change	0.000

Adjustments added 2018 Q1

CN Railroads	COLAs for several unions	0.005
Misc. Indep BLET, dispatchers, yardmasters	No change	0.131
Soo Corp.	No change	0.000

Adjusted STHR Total **\$34.205**

Pay For Time Not Worked

PFTNW (from national spreadsheet)		\$6.614
Ratio Adj STHR to Nat STHR	34.205 / 34.036 =	1.00497

Adjusted Pay For Time Not Worked **\$6.647**

Notes:

1. CN Railroads includes B&LE, CC&P, GTW, IC, and WC.
2. The Miscellaneous group consists of independent (for wages) BLET, and one railroad's dispatchers and yardmasters.
3. Soo Corp. includes SOO, D&H and DM&E although Soo Line participates in national agreements.

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/2018

U.S. ST Hours =

295,539,752

Wage Statistics are for 2016

Union Group	Employees	Mo. Rate	Annual \$
National BLET (BNSF, CSX, KCS, NS, SOO, UP)	23,363	(\$228.89)	(\$64,170,684.84)
National BMWE (BNSF, CSX, KCS, NS, SOO, UP)	22,734	(\$228.89)	(\$62,443,023.12)
National BRS (BNSF, CSX, KCS, NS, SOO, UP)	7,335	(\$228.89)	(\$20,146,897.80)
National IAM (BNSF, CSX, KCS, NS, SOO, UP)	6,691	(\$228.89)	(\$18,378,035.88)
National IBBM (BNSF, CSX, KCS, NS, SOO, UP)	863	(\$228.89)	(\$2,370,384.84)
National IBEW (BNSF, CSX, KCS, NS, SOO, UP)	5,522	(\$228.89)	(\$15,167,166.96)
National NCFO (BNSF, CSX, KCS, NS, SOO, UP)	2,395	(\$228.89)	(\$6,578,298.60)
National SMW (BNSF, CSX, KCS, NS, SOO, UP)	975	(\$228.89)	(\$2,678,013.00)
National TCU (BNSF, CSX, KCS, NS, SOO, UP)	4,766	(\$228.89)	(\$13,090,676.88)
National TCU-CAR (BNSF, CSX, KCS, NS, SOO, UP)	8,859	(\$228.89)	(\$24,332,838.12)
National UTU (BNSF, CSX, KCS, NS, SOO, UP)	35,162	(\$228.89)	(\$96,578,762.16)
Yardmasters (BNSF, CSX, KCS, NS, SOO, UP)	1,756	(\$228.89)	(\$4,823,170.08)
National ATDA (wt. avg. BNSF, CSX, KCS, NS, SOO)	1,718	(\$228.89)	(\$4,718,796.24)
Independent CNGT (wt avg all union categories)	6,110	(\$226.75)	(\$16,625,310.00)
Independent SLC (wt avg all DH & DME union categories)	655	(\$238.90)	(\$1,877,754.00)
Total Union	128,904		(\$353,979,812.52)
All Other @ \$4,016,163.08 total per month			(\$48,193,956.96)
Total			(\$402,173,769.48)

Reduction in Wage Rate Per ST Hour	-\$1.36081108
Deduct this amount from the Wage Rate	-\$1.361

National Contracts U.S.

Straight Time Hourly Rate															Check Sum
Weight	UTU	TCU	BLET	SMWIA	BRS	BMWE	TCU-CAR	NCFO	IAM	IBBM	IBEW	ATDA	YDMSTR	OTHER	1.00000
2016 Avg.	29.073	29.233	32.388	30.323	31.540	27.934	30.046	25.063	30.523	29.630	30.774	41.405	39.629	47.094	454.658
12/31/16	29.073	29.233	32.441	30.323	31.540	27.934	30.046	25.063	30.523	29.630	30.774	41.405	39.629	47.094	454.710
1/1/17	29.073	29.233	32.441	30.323	31.540	27.934	30.046	25.063	30.523	29.630	30.774	41.405	39.629	47.094	
4/1/17	29.073	29.233	32.441	30.323	31.540	27.934	30.046	25.063	30.523	29.630	30.774	41.405	39.629	47.094	
7/1/17	29.073	29.233	32.441	30.323	31.540	27.934	30.046	25.063	30.523	29.630	30.774	41.405	39.629	47.094	
10/1/17	29.073	29.233	32.441	30.323	31.540	27.934	30.046	25.063	30.523	29.630	30.774	41.405	39.629	47.094	
1/1/18	30.181	29.233	32.470	30.323	32.729	27.934	30.046	25.063	30.523	29.630	30.774	42.491	40.691	48.036	
4/1/18	30.181	29.233	32.470	30.323	32.729	27.934	30.046	25.063	30.523	29.630	30.774	42.491	40.691	48.036	
7/1/18	30.181	29.233	32.470	30.323	32.729	27.934	30.046	25.063	30.523	29.630	30.774	42.491	40.691	48.036	

Weighted Straight Time Hourly Rate															
	UTU	TCU	BLET	SMWIA	BRS	BMWE	TCU-CAR	NCFO	IAM	IBBM	IBEW	ATDA	YDMSTR	OTHER	Total
2016 Avg.	6.437	0.988	5.296	0.184	1.613	4.092	1.765	0.380	1.303	0.160	1.100	0.592	0.448	9.149	33.506
12/31/16	6.437	0.988	5.304	0.184	1.613	4.092	1.765	0.380	1.303	0.160	1.100	0.592	0.448	9.149	33.514
1/1/17	6.437	0.988	5.304	0.184	1.613	4.092	1.765	0.380	1.303	0.160	1.100	0.592	0.448	9.149	33.514
4/1/17	6.437	0.988	5.304	0.184	1.613	4.092	1.765	0.380	1.303	0.160	1.100	0.592	0.448	9.149	33.514
7/1/17	6.437	0.988	5.304	0.184	1.613	4.092	1.765	0.380	1.303	0.160	1.100	0.592	0.448	9.149	33.514
10/1/17	6.437	0.988	5.304	0.184	1.613	4.092	1.765	0.380	1.303	0.160	1.100	0.592	0.448	9.149	33.514
1/1/18	6.682	0.988	5.309	0.184	1.673	4.092	1.765	0.380	1.303	0.160	1.100	0.607	0.460	9.332	34.036
4/1/18	6.682	0.988	5.309	0.184	1.673	4.092	1.765	0.380	1.303	0.160	1.100	0.607	0.460	9.332	34.036
7/1/18	6.682	0.988	5.309	0.184	1.673	4.092	1.765	0.380	1.303	0.160	1.100	0.607	0.460	9.332	34.036

Note: The 2016 Average and 12/31/16 Straight Time Hourly Rates are the industry rates, and include all Class I railroad employees. The rates for 1/1/17 through 7/1/18 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 2016 are not shown on this page and are handled separately.

National Contracts U.S.

Pay For Time Not Worked Hourly Rate															Check Sum
Weight	UTU	TCU	BLET	SMWIA	BRS	BMWE	TCU-CAR	NCFO	IAM	IBBM	IBEW	ATDA	YDMSTR	OTHER	1.00000
2016 Avg.	0.22141	0.03378	0.16351	0.00607	0.05113	0.14649	0.05876	0.01518	0.04268	0.00540	0.03574	0.01429	0.0113	0.19427	79.491
12/31/16	10.055	5.553	11.616	4.149	6.356	4.931	4.045	3.036	4.613	4.014	4.805	6.873	8.148	1.297	
1/1/17	10.055	5.553	11.635	4.149	6.356	4.931	4.045	3.036	4.613	4.014	4.805	6.873	8.148	1.297	
4/1/17	10.055	5.553	11.635	4.149	6.356	4.931	4.045	3.036	4.613	4.014	4.805	6.873	8.148	1.297	
7/1/17	10.055	5.553	11.635	4.149	6.356	4.931	4.045	3.036	4.613	4.014	4.805	6.873	8.148	1.297	
10/1/17	10.055	5.553	11.635	4.149	6.356	4.931	4.045	3.036	4.613	4.014	4.805	6.873	8.148	1.297	
1/1/18	10.438	5.553	11.645	4.149	6.596	4.931	4.045	3.036	4.613	4.014	4.805	7.053	8.366	1.323	
4/1/18	10.438	5.553	11.645	4.149	6.596	4.931	4.045	3.036	4.613	4.014	4.805	7.053	8.366	1.323	
7/1/18	10.438	5.553	11.645	4.149	6.596	4.931	4.045	3.036	4.613	4.014	4.805	7.053	8.366	1.323	

Pay For Time Not Worked Hourly Rate															
	UTU	TCU	BLET	SMWIA	BRS	BMWE	TCU-CAR	NCFO	IAM	IBBM	IBEW	ATDA	YDMSTR	OTHER	Total
2016 Avg.	2.226	0.188	1.899	0.025	0.325	0.722	0.238	0.046	0.197	0.022	0.172	0.098	0.092	0.252	6.502
12/31/16	2.226	0.188	1.902	0.025	0.325	0.722	0.238	0.046	0.197	0.022	0.172	0.098	0.092	0.252	6.505
1/1/17	2.226	0.188	1.902	0.025	0.325	0.722	0.238	0.046	0.197	0.022	0.172	0.098	0.092	0.252	6.505
4/1/17	2.226	0.188	1.902	0.025	0.325	0.722	0.238	0.046	0.197	0.022	0.172	0.098	0.092	0.252	6.505
7/1/17	2.226	0.188	1.902	0.025	0.325	0.722	0.238	0.046	0.197	0.022	0.172	0.098	0.092	0.252	6.505
10/1/17	2.226	0.188	1.902	0.025	0.325	0.722	0.238	0.046	0.197	0.022	0.172	0.098	0.092	0.252	6.505
1/1/18	2.311	0.188	1.904	0.025	0.337	0.722	0.238	0.046	0.197	0.022	0.172	0.101	0.095	0.257	6.614
4/1/18	2.311	0.188	1.904	0.025	0.337	0.722	0.238	0.046	0.197	0.022	0.172	0.101	0.095	0.257	6.614
7/1/18	2.311	0.188	1.904	0.025	0.337	0.722	0.238	0.046	0.197	0.022	0.172	0.101	0.095	0.257	6.614

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UTU

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2016 Industry Avg.				29.07314	10.05469
12/31/16 Industry Rate				29.07327	10.05474
1/1/17	The 4.04% GWI combines two retroactive GWIs of 2% for 7/1/2016 and 7/1/2017 in the new labor agreement.		94.280%	29.07327	10.05474
4/1/17			94.280%	29.07327	10.05474
7/1/17			94.280%	29.07327	10.05474
10/1/17			94.280%	29.07327	10.05474
1/1/18	4.04%		94.280%	30.18064	10.43772
4/1/18			94.280%	30.18064	10.43772
7/1/18			94.280%	30.18064	10.43772

TCU

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2016 Industry Avg.				29.23338	5.55310
12/31/16 Industry Rate				29.23338	5.55310
1/1/17			82.842%	29.23338	5.55310
4/1/17			82.842%	29.23338	5.55310
7/1/17			82.842%	29.23338	5.55310
10/1/17			82.842%	29.23338	5.55310
1/1/18			82.842%	29.23338	5.55310
4/1/18			82.842%	29.23338	5.55310
7/1/18			82.842%	29.23338	5.55310

BLET

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2016 Industry Avg.				32.38830	11.61593
12/31/16 Industry Rate				32.44074	11.63474
1/1/17			2.230%	32.44074	11.63474
4/1/17			2.230%	32.44074	11.63474
7/1/17			2.230%	32.44074	11.63474
10/1/17			2.230%	32.44074	11.63474
1/1/18	4.04%		2.230%	32.46997	11.64522
4/1/18			2.230%	32.46997	11.64522
7/1/18			2.230%	32.46997	11.64522

SMWIA

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2016 Industry Avg.				30.32327	4.14896
12/31/16 Industry Rate				30.32327	4.14896
1/1/17			98.301%	30.32327	4.14896
4/1/17			98.301%	30.32327	4.14896
7/1/17			98.301%	30.32327	4.14896
10/1/17			98.301%	30.32327	4.14896
1/1/18			98.301%	30.32327	4.14896
4/1/18			98.301%	30.32327	4.14896
7/1/18			98.301%	30.32327	4.14896

BRS

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2016 Industry Avg.				31.54047	6.35647
12/31/16 Industry Rate				31.54047	6.35647
1/1/17			93.309%	31.54047	6.35647
4/1/17			93.309%	31.54047	6.35647
7/1/17			93.309%	31.54047	6.35647
10/1/17			93.309%	31.54047	6.35647
1/1/18	4.04%		93.309%	32.72944	6.59609
4/1/18			93.309%	32.72944	6.59609
7/1/18			93.309%	32.72944	6.59609

BMWE

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2016 Industry Avg.				27.93431	4.93131
12/31/16 Industry Rate				27.93431	4.93131
1/1/17			91.612%	27.93431	4.93131
4/1/17			91.612%	27.93431	4.93131
7/1/17			91.612%	27.93431	4.93131
10/1/17			91.612%	27.93431	4.93131
1/1/18			91.612%	27.93431	4.93131
4/1/18			91.612%	27.93431	4.93131
7/1/18			91.612%	27.93431	4.93131

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TCU-Carmen

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2016 Industry Avg.				30.04585	4.04463
12/31/16 Industry Rate				30.04585	4.04463
1/1/17			93.082%	30.04585	4.04463
4/1/17			93.082%	30.04585	4.04463
7/1/17			93.082%	30.04585	4.04463
10/1/17			93.082%	30.04585	4.04463
1/1/18			93.082%	30.04585	4.04463
4/1/18			93.082%	30.04585	4.04463
7/1/18			93.082%	30.04585	4.04463

NCFO

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2016 Industry Avg.				25.06329	3.03622
12/31/16 Industry Rate				25.06329	3.03622
1/1/17			97.245%	25.06329	3.03622
4/1/17			97.245%	25.06329	3.03622
7/1/17			97.245%	25.06329	3.03622
10/1/17			97.245%	25.06329	3.03622
1/1/18			97.245%	25.06329	3.03622
4/1/18			97.245%	25.06329	3.03622
7/1/18			97.245%	25.06329	3.03622

IAM

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2016 Industry Avg.				30.52312	4.61283
12/31/16 Industry Rate				30.52312	4.61283
1/1/17			96.130%	30.52312	4.61283
4/1/17			96.130%	30.52312	4.61283
7/1/17			96.130%	30.52312	4.61283
10/1/17			96.130%	30.52312	4.61283
1/1/18			96.130%	30.52312	4.61283
4/1/18			96.130%	30.52312	4.61283
7/1/18			96.130%	30.52312	4.61283

U.S. National Contract

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IBBM

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2016 Industry Avg.				29.63043	4.01375
12/31/16 Industry Rate				29.63043	4.01375
1/1/17			93.061%	29.63043	4.01375
4/1/17			93.061%	29.63043	4.01375
7/1/17			93.061%	29.63043	4.01375
10/1/17			93.061%	29.63043	4.01375
1/1/18			93.061%	29.63043	4.01375
4/1/18			93.061%	29.63043	4.01375
7/1/18			93.061%	29.63043	4.01375

IBEW

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2016 Industry Avg.				30.77399	4.80515
12/31/16 Industry Rate				30.77399	4.80515
1/1/17			95.049%	30.77399	4.80515
4/1/17			95.049%	30.77399	4.80515
7/1/17			95.049%	30.77399	4.80515
10/1/17			95.049%	30.77399	4.80515
1/1/18			95.049%	30.77399	4.80515
4/1/18			95.049%	30.77399	4.80515
7/1/18			95.049%	30.77399	4.80515

ATDA

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2016 Industry Avg.				41.40520	6.87293
12/31/16 Industry Rate				41.40520	6.87293
1/1/17			64.908%	41.40520	6.87293
4/1/17			64.908%	41.40520	6.87293
7/1/17			64.908%	41.40520	6.87293
10/1/17			64.908%	41.40520	6.87293
1/1/18	4.04%		64.908%	42.49097	7.05316
4/1/18			64.908%	42.49097	7.05316
7/1/18			64.908%	42.49097	7.05316

YDMSTRS

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2016 Industry Avg.				39.62949	8.14812
12/31/16 Industry Rate				39.62949	8.14812
1/1/17			66.322%	39.62949	8.14812
4/1/17			66.322%	39.62949	8.14812
7/1/17			66.322%	39.62949	8.14812
10/1/17			66.322%	39.62949	8.14812
1/1/18	4.04%		66.322%	40.69133	8.36644
4/1/18			66.322%	40.69133	8.36644
7/1/18			66.322%	40.69133	8.36644

OTHER

	Percentage Increase	Cents Increase	Applicable	ST HR	PFTNW HR
2016 Industry Avg.				47.09367	1.29707
12/31/16 Industry Rate				47.09367	1.29707
1/1/17			100.000%	47.09367	1.29707
4/1/17			100.000%	47.09367	1.29707
7/1/17			100.000%	47.09367	1.29707
10/1/17			100.000%	47.09367	1.29707
1/1/18	2.00%		100.000%	48.03555	1.32302
4/1/18			100.000%	48.03555	1.32302
7/1/18			100.000%	48.03555	1.32302

Check Sums

	Increase	Applicable	ST HR	PFTNW HR
2016 AVG			454.65790	79.49118
12/31/16			454.71048	
		1168.372%		
		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.

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. 17
U.S. consumer price index			
All items	246.663	-0.06	2.0
Core	253.638	0.28	1.8

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

Prime rates			
	Latest	Week ago	-52-Week-High Low
U.S.	4.25	4.25	4.25 3.50
Canada	3.20	3.20	3.20 2.70
Japan	1.475	1.475	1.475 1.475

Policy Rates			
	Latest	Week ago	-52-Week-High Low
Euro zone	0.00	0.00	0.00 0.00
Switzerland	0.50	0.50	0.50 0.50

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 listed to constant maturities. Data are from weekly Federal Reserve H.15.

	Week Ended Nov 24	Nov 17	High	Low
Federal funds (effective)	1.16	1.16	1.16	0.40

Commercial paper				
	1-month	2-month	3-month	6-month
Nonfinancial				
1-month	1.16	1.15	1.16	0.41
2-month	1.26	1.23	1.26	0.58
3-month	1.31	1.28	1.31	0.66
Financial				
1-month	1.22	1.19	1.22	0.46
2-month	1.28	1.25	1.28	0.60
3-month	1.35	1.31	1.35	0.72

Discount window primary credit				
	1.75	1.75	1.75	1.00

Conventional mortgages				
	n.a.	n.a.	n.a.	n.a.

Treasury yields at constant maturities				
	1-month	3-month	6-month	1-year
1-month	1.14	1.07	1.14	0.33
3-month	1.30	1.26	1.30	0.48
6-month	1.45	1.40	1.45	0.60
1-year	1.62	1.57	1.62	0.79
2-year	1.76	1.70	1.76	1.10
3-year	1.86	1.82	1.86	1.38
5-year	2.08	2.06	2.08	1.65
7-year	2.25	2.24	2.27	1.90
10-year	2.35	2.37	2.55	2.07
20-year	2.58	2.62	2.91	2.43

	Latest	Week ago	-52-Week-High Low
Britain	0.50	0.50	0.50 0.25
Australia	1.50	1.50	1.50 1.50

U.S. government rates				
	Latest	Week ago	-52-Week-High	Low
Discount	5.25%	5.25%	5.25%	5.25%

Discount				
	1.75	1.75	1.75	1.00
Federal funds				
	Effective rate	1.1700	1.1700	1.2000 0.3500
High	1.3125	1.3125	1.3125	0.5625
Low	1.0500	1.0500	1.1600	0.2500
Bid	1.1600	1.1600	1.1700	0.3000
Offer	1.1700	1.1700	1.1900	0.3200

Treasury yields (secondary market)				
	1-month	3-month	6-month	1-year
1-month	1.11	1.05	1.11	0.32
3-month	1.27	1.24	1.27	0.48
6-month	1.42	1.37	1.42	0.59
TIPS				
	5-year	7-year	10-year	20-year
5-year	0.34	0.28	0.34	-0.02
7-year	0.47	0.43	0.49	0.20
10-year	0.51	0.51	0.63	0.28
20-year	0.71	0.73	0.97	0.60
Long-term avg	0.74	0.76	0.97	0.65

Interest rate swaps				
	1-year	2-year	3-year	4-year
1-year	n.a.	n.a.	n.a.	n.a.
2-year	n.a.	n.a.	n.a.	n.a.
3-year	n.a.	n.a.	n.a.	n.a.
4-year	n.a.	n.a.	n.a.	n.a.
5-year	n.a.	n.a.	n.a.	n.a.
7-year	n.a.	n.a.	n.a.	n.a.
10-year	n.a.	n.a.	n.a.	n.a.
30-year	n.a.	n.a.	n.a.	n.a.

Corporate bonds, Moody's seasoned				
	Aaa	Baa	n.a.	n.a.
Aaa	n.a.	n.a.	n.a.	n.a.
Baa	n.a.	n.a.	n.a.	n.a.

State and local bonds				
	n.a.	n.a.	n.a.	n.a.

Eurodollars				
	1-month	3-month	6-month	1-year
1-month	n.a.	n.a.	n.a.	n.a.
3-month	n.a.	n.a.	n.a.	n.a.
6-month	n.a.	n.a.	n.a.	n.a.

	Latest	Week ago	-52-WEEK-High	Low
Treasury bill auction				
4 weeks	1.130	1.045	1.300	0.340
13 weeks	1.285	1.285	1.285	0.490
26 weeks	1.435	1.415	1.435	0.590

Secondary market				
	Latest	Week ago	-52-Week-High	Low
Fannie Mae				
30-year mortgage yields	5.40%	5.40%	5.40%	5.40%

30 days	3.455	3.466	3.865	3.253
60 days	3.475	3.486	3.899	3.281

Other short-term rates				
	Latest	Week ago	-52-Week-High	-52-Week-Low

Call money				
	3.00	3.00	3.00	2.25

Commercial paper (AA financial)				
90 days	n.a.	1.35	1.36	0.67

Libor				
	1-month	3-month	6-month	1-year
1-month	1.3476	1.2948	1.3476	0.60561
3-month	1.4775	1.44594	1.4775	0.93067
6-month	1.6582	1.63489	1.6582	1.28878
1-year	1.9424	1.90844	1.9424	1.63900

Euro Libor				
	1-month	3-month	6-month	1-year
1-month	-0.402	-0.401	-0.376	-0.405
3-month	-0.381	-0.379	-0.325	-0.381
6-month	-0.316	-0.312	-0.219	-0.322
1-year	-0.247	-0.238	-0.080	-0.251

Euro interbank offered rate (Euribor)				
	1-month	3-month	6-month	1-year
1-month	-0.372	-0.372	-0.366	-0.375
3-month	-0.329	-0.329	-0.313	-0.332
6-month	-0.272	-0.274	-0.216	-0.276
1-year	-0.186	-0.187	-0.076	-0.192

DTCC GCF Repo Index				
Treasury	1.177	29.000	1.366	0.264
MBS	1.203	123.450	1.506	0.280

	Settle	Change	Interest	Open Implied Rate
DTCC GCF Repo Index Futures				
Treasury Nov	98.795	unch.	6810	1.205
Treasury Dec	98.655	unch.	2252	1.345
Treasury Jan	98.555	0.005	459	1.445

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 June 15, 2017. Other prime rates aren't directly comparable; lending practices vary widely by location. Discount rate is effective June 15, 2017. 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. Futures on the DTCC GCF Repo Index are traded on NYSE Liffe US.

Sources: Federal Reserve; Bureau of Labor Statistics; DTCC; SIX Financial Information

	1.3	10-20 years	1.930	1.470	1.97
3387.95	8.4	20-plus years	2.900	2.730	3.46
2462.01	5.0	Yankee	2.880	2.610	3.09

*Constrained indexes limit individual issuer concentrations to 2%; the High **EMBI Global Index

Global Government Bonds: Mapping

Yields and spreads over or under U.S. Treasuries on selected other countries; arrows indicate whether the

Coupon (%)	Maturity, in years	Latest (a)	Yield (%)	Previous
1.500	U.S. 2	1.740 ▼		1.744
2.250	10	2.323 ▼		2.344
2.750	Australia 2	1.778 ▲		1.775
2.750	10	2.533 ▲		2.516
0.000	France 2	-0.581 ▼		-0.551
0.750	10	0.678 ▼		0.705
0.000	Germany 2	-0.694 ▼		-0.684
0.500	10	0.344 ▼		0.364
0.050	Italy 2	-0.278 ▼		-0.271
2.050	10	1.791 ▼		1.823
0.100	Japan 2	-0.174 ▲		-0.184
0.100	10	0.036 ▲		0.028
2.750	Spain 2	-0.339 ▲		-0.344
1.450	10	1.480 ▼		1.498
1.750	U.K. 2	0.465 ▲		0.463
4.250	10	1.255 ▲		1.253

Corporate Debt

in that same company's share price. Investment-grade spreads that tightened

Issuer	Symbol	Coupon (%)	Maturity
Xerox	XRX	4.070	March 17, '22
Zimmer Biomet Holdings	ZBH	2.700	April 1, '21
Comcast	CMCSA	3.999	Nov. 1, '45
Macy's Retail Holdings	M	4.500	Dec. 15, '34
AbbVie	ABBV	2.900	Nov. 6, '22
Apple	AAPL	2.400	Jan. 13, '23
Anheuser-Busch Inbev Worldwide	ABIBB	5.000	April 15, '21
Anthem	ANTM	4.625	May 15, '42

And spreads that widened the most

Issuer	Symbol	Coupon (%)	Maturity
Teva Pharmaceutical Finance Netherlands III	TEVA	3.150	Oct. 1, '21
Alibaba Group Holding	BABA	2.500	Nov. 28, '15
3M	MMM	2.000	June 26, '22
AT&T	T	4.500	March 9, '48
Apache	APA	3.250	April 15, '22
American Express Credit	AXP	2.600	Sept. 14, '20
Oracle	ORCL	1.900	Sept. 15, '21
Anthem	ANTM	4.375	Dec. 1, '47

High-yield issues with the biggest price

Issuer	Symbol	Coupon (%)	Maturity
Hexion	HXN	6.625	April 15, '21
Endo Finance	ENDP	7.250	Jan. 15, '22
Mallinckrodt International Finance	MINK	4.750	April 15, '23
Sinclair Television	SBGI	5.625	Aug. 1, '24
Ngpi Pipeco	NGPLCO	4.375	Aug. 15, '22
Altice Financing S.A.	ALTICE	6.500	Jan. 15, '22
Beacon Escrow	BEEN	4.875	Nov. 1, '25
Brand Energy And Infrastructure Services	BRANDI	8.500	July 15, '25

And with the biggest price decreases

Issuer	Symbol	Coupon (%)	Maturity
Millicom International Cellular S.A.	MICF	5.125	Jan. 15, '28
Altice Luxembourg S.A.	ATCNA	7.625	Feb. 15, '25
CenturyLink	CTL	7.600	Sept. 15, '35
Enesco	ESV	4.500	Oct. 1, '24
Frontier Communications	FTR	9.000	Aug. 15, '31
MGM Resorts International	MGM	4.625	Sept. 1, '26
SFR S.A.	SFRFP	7.375	May 1, '26
Altice Financing S.A.	ALTICE	6.625	Feb. 15, '23

*Estimated spread over 2-year, 3-year, 5-year, 10-year or 30-year hot-min Treasuries

**RCAF Lump Sum Amortization
2018/Q1**

	Quarter of Payment	Quarter Amortization Began	Amount	Annual Per ST Hour	1 Quarter Per ST Hour	U.S. ST Hours	
NS - BLET 2016Q4 PPI	2017Q1	2017Q2				295,539,752	2016
NS - BLET 2017 Ave PP	2017Q1	2017Q2				295,539,752	2016
NS - BLET 2017 TPB	2017Q1	2017Q2				295,539,752	2016
CSX - BLET 2017	2017Q1	2017Q2				295,539,752	2016
NS - BLET 2017Q1 PPI	2017Q2	2017Q3				295,539,752	2016
NS - BLET 2017Q2 PPI	2017Q3	2017Q4				295,539,752	2016
NS - BLET 2017Q3 PPI	2017Q4	2018Q1				295,539,752	2016
Total			\$91,761,439	0.31049			

Should be slightly less
than amortized amount.

Fell out

NS - BLET 2016Q3 PPI	2016Q4	2017Q1				295,539,752	2016
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Interest Rate

2016/Q1	0.140
2016/Q2	0.320
2016/Q3	0.350
2016/Q4	0.310
2017/Q1	0.480
2017/Q2	0.540
2017/Q3	0.920
2017/Q4	1.070
2018/Q1	1.285
2018/Q2	
2018/Q3	
2018/Q4	

Lump Sum Adjustment for 2018/Q1 → **0.312528**
or
0.313

RCAF Back Pay Amortization 2018/Q1

	Quarter of Payment	Quarter Amortization Began	Amount	Annual Per ST Hour	1 Quarter Per ST Hr.	U.S. ST Hours	
DME - all unions 2017	2017Q1	2017Q2				295,539,752	2016
National UTU-YMD 2017	2018Q1	2018Q1	\$4,335,581	0.01467004	0.05868	295,539,752	2016
National UTU 2017	2018Q1	2018Q1	\$96,372,104	0.32608847	1.30435	295,539,752	2016
National BRS 2017	2018Q1	2018Q1	\$22,525,654	0.07621869	0.30487	295,539,752	2016
National BLET 2017	2018Q1	2018Q1	\$51,247,884	0.17340437	0.69362	295,539,752	2016
National ATDA 2017	2018Q1	2018Q1	\$5,926,972	0.02005474	0.08022	295,539,752	2016
Total			<u>\$180,382,169</u>	<u>0.61034824</u>			

Should be slightly less
than amortized amount.

Fell out

CN - 2 YMD	2016Q1	2017Q1				295,539,752	2016
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Note: "UTU" is now called SMART-TD

Interest Rate

2016/Q1	0.140
2016/Q2	0.320
2016/Q3	0.350
2016/Q4	0.310
2017/Q1	0.480
2017/Q2	0.540
2017/Q3	0.920
2017/Q4	1.070
2018/Q1	1.285
2018/Q2	
2018/Q3	
2018/Q4	

Back Pay Adjustment for 2018/Q1

0.61526

or

0.615

Back Pay for National SMART-TD (formerly UTU) Added to RCAF 2018Q1

National SMART-TD (excluding yardmasters) New Contract Signed 12/1/2017

ST Hours Paid 61,691,884 2016 Wage Statistics and Benchmark
 2016 ST Hourly Rate \$28.76891 2016 Wage Statistics and Benchmark
 2016 PFTNW HR \$10.09060 2016 Wage Statistics and Benchmark
 Ratio PFTNW/STHR 0.3507466 calc. from wage statistics
 STHR 12/31/2016 \$28.76891 from YearEnd2016.xlsx (no increase in 2016)

Includes all railroads benchmarked as "national" in the RCAF labor benchmarks: BNSF, CSX, KCS, NS, and UP.

7/1/16 G.W.I. 2.00% new contract, ARTICLE I Section 2
 7/1/17 G.W.I. 2.00% new contract, ARTICLE I Section 3

Qtr.	Total Hourly Rate in 2017 Contract			Total Hourly Rate Paid			Difference	Wage Back Pay \$	H&W Offset \$	Net Back Pay \$
	ST	PFTNW	Total	ST	PFTNW	Total				
2016Q1	\$28.7689	\$10.0906	\$38.8595	\$28.7689	\$10.0906	\$38.8595	\$0.0000	\$0.00	\$0.00	\$0.00
2016Q2	28.7689	10.0906	38.8595	28.7689	10.0906	38.8595	0.0000	\$0.00	\$0.00	0.00
2016Q3	29.3443	10.2924	39.6367	28.7689	10.0906	38.8595	0.7772	\$11,986,580.12	\$0.00	11,986,580.12
2016Q4	29.3443	10.2924	39.6367	28.7689	10.0906	38.8595	0.7772	\$11,986,580.12	\$0.00	11,986,580.12
2017Q1	29.3443	10.2924	39.6367	28.7689	10.0906	38.8595	0.7772	\$11,986,580.12	\$0.00	11,986,580.12
2017Q2	29.3443	10.2924	39.6367	28.7689	10.0906	38.8595	0.7772	\$11,986,580.12	\$0.00	11,986,580.12
2017Q3	29.9312	10.4983	40.4294	28.7689	10.0906	38.8595	1.5699	\$24,212,891.84	\$0.00	24,212,891.84
2017Q4	29.9312	10.4983	40.4294	28.7689	10.0906	38.8595	1.5699	\$24,212,891.84	\$0.00	24,212,891.84
2018Q1										
Total										\$96,372,104.16

H&W Employee Cost Sharing		No. of Employees	Old Contract Mo. Rate	New Contract Mo. Rate	Quarterly Amount
From	Thru				
No H&W offset since the cost sharing amounts are the same at the end of the old contract and in this new contract.					

Back Pay for National SMART-TD Yardmasters Department Added to RCAF 2018Q1

National SMART-TD YMD (formerly UTU-YMD) New Contract Signed 12/1/2017

ST Hours Paid 2,215,062 2016 Wage Statistics and Benchmark
 2016 ST Hourly Rate \$37.72787 2016 Wage Statistics and Benchmark
 2016 PFTNW HR \$10.96163 2016 Wage Statistics and Benchmark
 Ratio PFTNW/STHR [0.2905446](#) calc. from wage statistics
 STHR 12/31/2016 \$37.72787 from YearEnd2016.xlsx (no increase in 2016)

Includes all railroads benchmarked as "national" in the RCAF labor benchmarks: BNSF, CSX, KCS, and NS.

7/1/16 G.W.I. 2.00% new contract, ARTICLE I Section 2
 7/1/17 G.W.I. 2.00% new contract, ARTICLE I Section 3

Qtr.	Total Hourly Rate in 2017 Contract			Total Hourly Rate Paid			Difference	Wage	H&W	Net
	ST	PFTNW	Total	ST	PFTNW	Total		Back Pay \$	Offset \$	Back Pay \$
2016Q1	\$37.7279	\$10.9616	\$48.6895	\$37.7279	\$10.9616	\$48.6895	\$0.0000	\$0.00	\$0.00	\$0.00
2016Q2	37.7279	10.9616	48.6895	37.7279	10.9616	48.6895	0.0000	\$0.00	\$0.00	0.00
2016Q3	38.4824	11.1809	49.6633	37.7279	10.9616	48.6895	0.9738	\$539,251.37	\$0.00	539,251.37
2016Q4	38.4824	11.1809	49.6633	37.7279	10.9616	48.6895	0.9738	\$539,251.37	\$0.00	539,251.37
2017Q1	38.4824	11.1809	49.6633	37.7279	10.9616	48.6895	0.9738	\$539,251.37	\$0.00	539,251.37
2017Q2	38.4824	11.1809	49.6633	37.7279	10.9616	48.6895	0.9738	\$539,251.37	\$0.00	539,251.37
2017Q3	39.2521	11.4045	50.6566	37.7279	10.9616	48.6895	1.9671	\$1,089,287.76	\$0.00	1,089,287.76
2017Q4	39.2521	11.4045	50.6566	37.7279	10.9616	48.6895	1.9671	\$1,089,287.76	\$0.00	1,089,287.76
Total										\$4,335,580.97

H&W Employee Cost Sharing		No. of Employees	Old Contract	New Contract	Quarterly Amount
From	Thru		Mo. Rate	Mo. Rate	
No H&W offset since the cost sharing amounts are the same at the end of the old contract and in this new contract.					

Health and Welfare 2018Q1

	Employees Receiving				
	Pay 2016	Monthly Contribution		Total 2016 Avg.	Total 2018
		2016 Avg.	2018		
1. All Employees					
a. Group health	156,278	\$1,481.05	\$1,662.44	\$231,455,531.90	\$259,802,798.32
b. Group dental	156,278	56.97	63.67	8,903,157.66	9,950,220.26
c. Early retirement major medical	156,278	134.70	139.97	21,050,646.60	21,874,231.66
d. Group vision	156,278	8.41	8.44	1,314,297.98	1,318,986.32
2. Supplemental Sickness					
a. Signalmen	7,773	29.48	44.34	229,148.04	344,654.82
b. Shopcrafts	23,960	49.11	75.48	1,176,675.60	1,808,500.80
c. MOW	24,275	32.87	51.63	797,919.25	1,253,318.25
d. Yardmasters	1,874	34.22	34.22	64,128.28	64,128.28
3. Short-Term Disability					
a. Engineers (CSX, KCS, SOO, UP)	11,930	40.00	40.00	477,200.00	477,200.00
4. Monthly Total Premiums				265,468,705.31	296,894,038.71
5. Monthly Employee Contributions To H&W					
a. National BLET (BNSF, CSX, KCS, NS, SOO, UP)	23,363	(\$213.45)	(\$228.89)	(\$4,986,832.35)	(5,347,557.07)
b. National BMW (BNSF, CSX, KCS, NS, SOO, UP)	22,734	(\$213.45)	(\$228.89)	(\$4,852,572.30)	(5,203,585.26)
c. National BRS (BNSF, CSX, KCS, NS, SOO, UP)	7,335	(\$213.45)	(\$228.89)	(\$1,565,655.75)	(1,678,908.15)
d. National IAM (BNSF, CSX, KCS, NS, SOO, UP)	6,691	(\$213.45)	(\$228.89)	(\$1,428,193.95)	(1,531,502.99)
e. National IBBM (BNSF, CSX, KCS, NS, SOO, UP)	863	(\$213.45)	(\$228.89)	(\$184,207.35)	(197,532.07)
f. National IBEW (BNSF, CSX, KCS, NS, SOO, UP)	5,522	(\$213.45)	(\$228.89)	(\$1,178,670.90)	(1,263,930.58)
g. National NCFO (BNSF, CSX, KCS, NS, SOO, UP)	2,395	(\$213.45)	(\$228.89)	(\$511,212.75)	(548,191.55)
h. National SMW (BNSF, CSX, KCS, NS, SOO, UP)	975	(\$213.45)	(\$228.89)	(\$208,113.75)	(223,167.75)
i. National TCU (BNSF, CSX, KCS, NS, SOO, UP)	4,766	(\$213.45)	(\$228.89)	(\$1,017,302.70)	(1,090,889.74)
j. National TCU-CAR (BNSF, CSX, KCS, NS, SOO, UP)	8,859	(\$213.45)	(\$228.89)	(\$1,890,953.55)	(2,027,736.51)
k. National UTU (BNSF, CSX, KCS, NS, SOO, UP)	35,162	(\$213.45)	(\$228.89)	(\$7,505,328.90)	(8,048,230.18)
l. Yardmasters (BNSF, CSX, KCS, NS, SOO, UP)	1,756	(\$213.45)	(\$228.89)	(\$374,818.20)	(401,930.84)
m. National ATDA (wt. avg. BNSF, CSX, KCS, NS, SOO)	1,718	(\$213.45)	(\$228.89)	(\$366,707.10)	(\$393,233.02)
n. Independent CNGT (wt avg all union categories)	6,110	(\$211.84)	(\$226.75)	(\$1,294,342.40)	(1,385,442.50)
o. Independent SLC (wt avg all DH & DME union categories)	655	(\$228.06)	(\$238.90)	(\$149,379.30)	(156,479.50)
p.					
Total Major Union	128,904			(\$27,514,291.25)	(\$29,498,317.71)
All Other Employee Contributions*				(\$4,016,163.08)	(\$4,016,163.08)
6. Net Employer Monthly Payments				\$233,938,250.98	\$263,379,557.92
7. Ratio Projected Year to Base Year, Based on Net Monthly Payments					1.12585
8. H&W hourly rate for base year 2016				\$7.563	
9. H&W hourly rate for projected quarter					\$8.515

* Non-union employee contributions net of opt-outs. The \$27,514,291.25 in major union contributions, plus \$4,016,163.08 in all other employee contributions, totals to the 12-month average of the total employee contributions reported to the AAR in its WF survey.

Railroad Retirement and Medicare for RCAF

Inputs:

RRB Earnings Distribution Year 2015
 Wage Statistics Year 2016
 Current Year 2018
 Employees Receiving Pay* 156,278

* from 2016 wage statistics

Tier I Maximum Taxable Earnings for 2018 128,700
 Tier II Maximum Taxable Earnings for 2018 95,400
 Medicare Maximum Taxable Earnings for 2018 no limit
 Tier I Employer Tax Rate for 2018 6.20%
 Tier II Employer Tax Rate for 2018 13.10%
 Medicare Employer Tax Rate for 2018 1.45%

USA RCAF	Wage Rate	Update Factor	Railroad Retirement Tax	Hourly Rate
2015	\$39.887			
2016	\$39.231	0.98355	\$626,560,300	\$8.192
1Q/2018	\$40.555	1.01675	\$656,519,780	\$8.584
2Q/2018		0.00000	--	\$0.000
3Q/2018		0.00000	--	\$0.000
4Q/2018		0.00000	--	\$0.000

hourly rate from SUPPL2016.xlsx

Rate = Taxable Rate

Railroad Retirement & Medicare, U.S.

From 2015 Earnings Distribution			1Q/2018 Updated Using Earnings Distribution & Wage Statistics, plus Current Wage Rates with Current Tax Info									
Earnings Groups	Avg Ann. Earnings	% of Total Employees	Employees	Annual 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	\$32,898	2.073	%	3,240	\$33,449	\$8,362	\$8,362	\$8,362	\$8,362	\$27,090,666	\$27,090,666	\$27,090,666
41,700 - 43,699	\$43,084	0.612		956	43,806	10,951	10,951	10,951	10,951	10,474,139	10,474,139	10,474,139
43,700 - 45,699	\$44,719	0.754		1,178	45,468	11,367	11,367	11,367	11,367	13,394,124	13,394,124	13,394,124
45,700 - 47,699	\$46,516	0.942		1,472	47,295	11,824	11,824	11,824	11,824	17,406,207	17,406,207	17,406,207
47,700 - 49,699	\$48,812	1.130		1,766	49,629	12,407	12,407	12,407	12,407	21,910,684	21,910,684	21,910,684
49,700 - 51,699	\$50,602	1.178		1,841	51,449	12,862	12,862	12,862	12,862	23,679,027	23,679,027	23,679,027
51,700 - 53,699	\$52,846	1.319		2,061	53,731	13,433	13,433	13,433	13,433	27,689,034	27,689,034	27,689,034
53,700 - 55,699	\$54,776	1.743		2,724	55,693	13,923	13,923	13,923	13,923	37,926,135	37,926,135	37,926,135
55,700 - 57,699	\$56,687	2.167		3,387	57,636	14,409	14,409	14,409	14,409	48,797,017	48,797,017	48,797,017
57,700 - 59,699	\$58,718	1.790		2,797	59,701	14,925	14,925	14,925	14,925	41,751,797	41,751,797	41,751,797
59,700 - 61,699	\$60,855	3.580		5,595	61,874	15,469	15,469	15,469	15,469	86,542,648	86,542,648	86,542,648
61,700 - 63,699	\$62,705	4.710		7,361	63,755	15,939	15,939	15,939	15,939	117,320,516	117,320,516	117,320,516
63,700 - 65,699	\$64,735	3.910		6,110	65,819	16,455	16,455	16,455	16,455	100,546,463	100,546,463	100,546,463
65,700 - 67,699	\$66,581	3.957		6,184	67,696	16,924	16,924	16,924	16,924	104,656,751	104,656,751	104,656,751
67,700 - 69,699	\$68,768	3.627		5,668	69,920	17,480	17,480	17,480	17,480	99,079,735	99,079,735	99,079,735
69,700 - 71,699	\$70,711	3.721		5,815	71,895	17,974	17,974	17,974	17,974	104,519,551	104,519,551	104,519,551
71,700 - 73,699	\$72,644	3.344		5,226	73,861	18,465	18,465	18,465	18,465	96,497,687	96,497,687	96,497,687
73,700 - 75,699	\$74,617	3.721		5,815	75,867	18,967	18,967	18,967	18,967	110,293,099	110,293,099	110,293,099
75,700 - 77,699	\$76,720	3.957		6,184	78,005	19,501	19,501	19,501	19,501	120,593,953	120,593,953	120,593,953
77,700 - 79,699	\$78,703	2.826		4,416	80,021	20,005	20,005	20,005	20,005	88,351,582	88,351,582	88,351,582
79,700 - 81,699	\$80,790	2.496		3,901	82,143	20,536	20,536	20,536	20,536	80,103,792	80,103,792	80,103,792
81,700 - 83,699	\$82,667	2.826		4,416	84,051	21,013	21,013	21,013	21,013	92,801,548	92,801,548	92,801,548
83,700 - 85,699	\$84,656	2.449		3,827	86,074	21,518	21,518	21,518	21,518	82,356,412	82,356,412	82,356,412
85,700 - 87,699	\$86,571	3.109		4,859	88,021	22,005	22,005	22,005	22,005	106,916,330	106,916,330	106,916,330
87,700 - 89,699	\$88,770	2.591		4,049	90,257	22,564	22,564	22,564	22,564	91,365,980	91,365,980	91,365,980
89,700 - 91,699	\$90,664	2.638		4,123	92,182	23,046	23,046	23,046	23,046	95,008,082	95,008,082	95,008,082
91,700 - 93,699	\$92,682	2.779		4,343	94,234	23,559	23,559	23,559	23,559	102,313,945	102,313,945	102,313,945
93,700 - 95,699	\$94,776	2.025		3,165	96,363	24,091	24,091	23,850	24,091	76,238,491	75,476,414	76,238,491
95,700 - 97,699	\$96,754	1.649		2,577	98,374	24,594	24,594	23,850	24,594	63,378,283	61,462,028	63,378,283
97,700 - 99,699	\$98,799	3.015		4,712	100,454	25,113	25,113	23,850	25,113	118,328,879	112,375,994	118,328,879
99,700 - 101,699	\$100,824	2.025		3,165	102,513	25,628	25,628	23,850	25,628	81,103,545	75,476,414	81,103,545
101,700 - 103,699	\$102,818	1.083		1,692	104,540	26,135	26,135	23,850	26,135	44,233,214	40,365,904	44,233,214
103,700 - 105,699	\$104,762	1.319		2,061	106,516	26,629	26,629	23,850	26,629	54,890,788	49,162,168	54,890,788
105,700 - 107,699	\$106,724	2.355		3,680	108,511	27,128	27,128	23,850	27,128	99,839,843	87,776,274	99,839,843
107,700 - 109,699	\$108,858	1.272		1,988	110,681	27,670	27,670	23,850	27,670	55,004,516	47,410,369	55,004,516
109,700 - 111,699	\$110,533	1.696		2,650	112,384	28,096	28,096	23,850	28,096	74,467,829	63,213,826	74,467,829
111,700 - 113,699	\$112,778	0.895		1,399	114,667	28,667	28,667	23,850	28,667	40,095,747	33,358,711	40,095,747
113,700 - 115,699	\$114,802	1.083		1,692	116,725	29,181	29,181	23,850	29,181	49,388,837	40,365,904	49,388,837
\$115,700 - over	\$165,875	11.634		18,181	168,653	42,163	32,175	23,850	42,163	<u>584,985,983</u>	<u>433,625,973</u>	<u>766,585,996</u>
TOTAL	\$87,427	100.000		156,278								
Total Taxable Earnings										3,291,342,857	3,069,456,881	3,472,942,870
Employer Tax Rate										6.20%	13.10%	1.45%
Quarterly Payment										\$204,063,257	\$402,098,851	\$50,357,672

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

\$656,519,780

Railroad Retirement & Medicare, U.S.

From 2015 Earnings Distribution			2Q/2018 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	\$32,898	2.073	3,240	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
41,700 - 43,699	\$43,084	0.612	956	0	0	0	0	0	0	0	0	0
43,700 - 45,699	\$44,719	0.754	1,178	0	0	0	0	0	0	0	0	0
45,700 - 47,699	\$46,516	0.942	1,472	0	0	0	0	0	0	0	0	0
47,700 - 49,699	\$48,812	1.130	1,766	0	0	0	0	0	0	0	0	0
49,700 - 51,699	\$50,602	1.178	1,841	0	0	0	0	0	0	0	0	0
51,700 - 53,699	\$52,846	1.319	2,061	0	0	0	0	0	0	0	0	0
53,700 - 55,699	\$54,776	1.743	2,724	0	0	0	0	0	0	0	0	0
55,700 - 57,699	\$56,687	2.167	3,387	0	0	0	0	0	0	0	0	0
57,700 - 59,699	\$58,718	1.790	2,797	0	0	0	0	0	0	0	0	0
59,700 - 61,699	\$60,855	3.580	5,595	0	0	0	0	0	0	0	0	0
61,700 - 63,699	\$62,705	4.710	7,361	0	0	0	0	0	0	0	0	0
63,700 - 65,699	\$64,735	3.910	6,110	0	0	0	0	0	0	0	0	0
65,700 - 67,699	\$66,581	3.957	6,184	0	0	0	0	0	0	0	0	0
67,700 - 69,699	\$68,768	3.627	5,668	0	0	0	0	0	0	0	0	0
69,700 - 71,699	\$70,711	3.721	5,815	0	0	0	0	0	0	0	0	0
71,700 - 73,699	\$72,644	3.344	5,226	0	0	0	0	0	0	0	0	0
73,700 - 75,699	\$74,617	3.721	5,815	0	0	0	0	0	0	0	0	0
75,700 - 77,699	\$76,720	3.957	6,184	0	0	0	0	0	0	0	0	0
77,700 - 79,699	\$78,703	2.826	4,416	0	0	0	0	0	0	0	0	0
79,700 - 81,699	\$80,790	2.496	3,901	0	0	0	0	0	0	0	0	0
81,700 - 83,699	\$82,667	2.826	4,416	0	0	0	0	0	0	0	0	0
83,700 - 85,699	\$84,656	2.449	3,827	0	0	0	0	0	0	0	0	0
85,700 - 87,699	\$86,571	3.109	4,859	0	0	0	0	0	0	0	0	0
87,700 - 89,699	\$88,770	2.591	4,049	0	0	0	0	0	0	0	0	0
89,700 - 91,699	\$90,664	2.638	4,123	0	0	0	0	0	0	0	0	0
91,700 - 93,699	\$92,682	2.779	4,343	0	0	0	0	0	0	0	0	0
93,700 - 95,699	\$94,776	2.025	3,165	0	0	0	241	0	0	762,077	0	0
95,700 - 97,699	\$96,754	1.649	2,577	0	0	0	744	0	0	1,916,255	0	0
97,700 - 99,699	\$98,799	3.015	4,712	0	0	0	1,263	0	0	5,952,886	0	0
99,700 - 101,699	\$100,824	2.025	3,165	0	0	0	1,778	0	0	5,627,131	0	0
101,700 - 103,699	\$102,818	1.083	1,692	0	0	0	2,285	0	0	3,867,310	0	0
103,700 - 105,699	\$104,762	1.319	2,061	0	0	0	2,779	0	0	5,728,620	0	0
105,700 - 107,699	\$106,724	2.355	3,680	0	0	0	3,278	0	0	12,063,570	0	0
107,700 - 109,699	\$108,858	1.272	1,988	0	0	0	3,820	0	0	7,594,147	0	0
109,700 - 111,699	\$110,533	1.696	2,650	0	0	0	4,246	0	0	11,254,003	0	0
111,700 - 113,699	\$112,778	0.895	1,399	0	0	0	4,817	0	0	6,737,036	0	0
113,700 - 115,699	\$114,802	1.083	1,692	0	0	0	5,331	0	0	9,022,933	0	0
\$115,700 - over	\$165,875	11.634	18,181	0	0	9,988	18,313	0	181,600,013	332,960,023	0	0
TOTAL		100.000	156,278						Total Taxable Earnings	181,600,013	403,485,989	0
									Employer Tax Rate	6.20%	13.10%	1.45%
									Quarterly Payment	\$11,259,201	\$52,856,665	\$0

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

\$64,115,865

Railroad Retirement & Medicare, U.S.

From 2015 Earnings Distribution			3Q/2018 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	\$32,898	2.073	3,240	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
41,700 - 43,699	\$43,084	0.612	956	0	0	0	0	0	0	0	0	0
43,700 - 45,699	\$44,719	0.754	1,178	0	0	0	0	0	0	0	0	0
45,700 - 47,699	\$46,516	0.942	1,472	0	0	0	0	0	0	0	0	0
47,700 - 49,699	\$48,812	1.130	1,766	0	0	0	0	0	0	0	0	0
49,700 - 51,699	\$50,602	1.178	1,841	0	0	0	0	0	0	0	0	0
51,700 - 53,699	\$52,846	1.319	2,061	0	0	0	0	0	0	0	0	0
53,700 - 55,699	\$54,776	1.743	2,724	0	0	0	0	0	0	0	0	0
55,700 - 57,699	\$56,687	2.167	3,387	0	0	0	0	0	0	0	0	0
57,700 - 59,699	\$58,718	1.790	2,797	0	0	0	0	0	0	0	0	0
59,700 - 61,699	\$60,855	3.580	5,595	0	0	0	0	0	0	0	0	0
61,700 - 63,699	\$62,705	4.710	7,361	0	0	0	0	0	0	0	0	0
63,700 - 65,699	\$64,735	3.910	6,110	0	0	0	0	0	0	0	0	0
65,700 - 67,699	\$66,581	3.957	6,184	0	0	0	0	0	0	0	0	0
67,700 - 69,699	\$68,768	3.627	5,668	0	0	0	0	0	0	0	0	0
69,700 - 71,699	\$70,711	3.721	5,815	0	0	0	0	0	0	0	0	0
71,700 - 73,699	\$72,644	3.344	5,226	0	0	0	0	0	0	0	0	0
73,700 - 75,699	\$74,617	3.721	5,815	0	0	0	0	0	0	0	0	0
75,700 - 77,699	\$76,720	3.957	6,184	0	0	0	0	0	0	0	0	0
77,700 - 79,699	\$78,703	2.826	4,416	0	0	0	0	0	0	0	0	0
79,700 - 81,699	\$80,790	2.496	3,901	0	0	0	0	0	0	0	0	0
81,700 - 83,699	\$82,667	2.826	4,416	0	0	0	0	0	0	0	0	0
83,700 - 85,699	\$84,656	2.449	3,827	0	0	0	0	0	0	0	0	0
85,700 - 87,699	\$86,571	3.109	4,859	0	0	0	0	0	0	0	0	0
87,700 - 89,699	\$88,770	2.591	4,049	0	0	0	0	0	0	0	0	0
89,700 - 91,699	\$90,664	2.638	4,123	0	0	0	0	0	0	0	0	0
91,700 - 93,699	\$92,682	2.779	4,343	0	0	0	0	0	0	0	0	0
93,700 - 95,699	\$94,776	2.025	3,165	0	0	0	0	0	0	0	0	0
95,700 - 97,699	\$96,754	1.649	2,577	0	0	0	0	0	0	0	0	0
97,700 - 99,699	\$98,799	3.015	4,712	0	0	0	0	0	0	0	0	0
99,700 - 101,699	\$100,824	2.025	3,165	0	0	0	0	0	0	0	0	0
101,700 - 103,699	\$102,818	1.083	1,692	0	0	0	0	0	0	0	0	0
103,700 - 105,699	\$104,762	1.319	2,061	0	0	0	0	0	0	0	0	0
105,700 - 107,699	\$106,724	2.355	3,680	0	0	0	0	0	0	0	0	0
107,700 - 109,699	\$108,858	1.272	1,988	0	0	0	0	0	0	0	0	0
109,700 - 111,699	\$110,533	1.696	2,650	0	0	0	0	0	0	0	0	0
111,700 - 113,699	\$112,778	0.895	1,399	0	0	0	0	0	0	0	0	0
113,700 - 115,699	\$114,802	1.083	1,692	0	0	0	0	0	0	0	0	0
\$115,700 - over	\$165,875	11.634	18,181	0	0	0	0	0	0	0	0	0
TOTAL		100.000	156,278						0	0	0	0
								Total Taxable Earnings	6.20%	13.10%	1.45%	
								Employer Tax Rate				
								Quarterly Payment	\$0	\$0	\$0	
Total Tier I, Tier II, and Medicare Paid this Quarter												\$0

Railroad Retirement & Medicare, U.S.

From 2015 Earnings Distribution			4Q/2018 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	\$32,898	2.073	3,240	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
41,700 - 43,699	\$43,084	0.612	956	0	0	0	0	0	0	0	0	0
43,700 - 45,699	\$44,719	0.754	1,178	0	0	0	0	0	0	0	0	0
45,700 - 47,699	\$46,516	0.942	1,472	0	0	0	0	0	0	0	0	0
47,700 - 49,699	\$48,812	1.130	1,766	0	0	0	0	0	0	0	0	0
49,700 - 51,699	\$50,602	1.178	1,841	0	0	0	0	0	0	0	0	0
51,700 - 53,699	\$52,846	1.319	2,061	0	0	0	0	0	0	0	0	0
53,700 - 55,699	\$54,776	1.743	2,724	0	0	0	0	0	0	0	0	0
55,700 - 57,699	\$56,687	2.167	3,387	0	0	0	0	0	0	0	0	0
57,700 - 59,699	\$58,718	1.790	2,797	0	0	0	0	0	0	0	0	0
59,700 - 61,699	\$60,855	3.580	5,595	0	0	0	0	0	0	0	0	0
61,700 - 63,699	\$62,705	4.710	7,361	0	0	0	0	0	0	0	0	0
63,700 - 65,699	\$64,735	3.910	6,110	0	0	0	0	0	0	0	0	0
65,700 - 67,699	\$66,581	3.957	6,184	0	0	0	0	0	0	0	0	0
67,700 - 69,699	\$68,768	3.627	5,668	0	0	0	0	0	0	0	0	0
69,700 - 71,699	\$70,711	3.721	5,815	0	0	0	0	0	0	0	0	0
71,700 - 73,699	\$72,644	3.344	5,226	0	0	0	0	0	0	0	0	0
73,700 - 75,699	\$74,617	3.721	5,815	0	0	0	0	0	0	0	0	0
75,700 - 77,699	\$76,720	3.957	6,184	0	0	0	0	0	0	0	0	0
77,700 - 79,699	\$78,703	2.826	4,416	0	0	0	0	0	0	0	0	0
79,700 - 81,699	\$80,790	2.496	3,901	0	0	0	0	0	0	0	0	0
81,700 - 83,699	\$82,667	2.826	4,416	0	0	0	0	0	0	0	0	0
83,700 - 85,699	\$84,656	2.449	3,827	0	0	0	0	0	0	0	0	0
85,700 - 87,699	\$86,571	3.109	4,859	0	0	0	0	0	0	0	0	0
87,700 - 89,699	\$88,770	2.591	4,049	0	0	0	0	0	0	0	0	0
89,700 - 91,699	\$90,664	2.638	4,123	0	0	0	0	0	0	0	0	0
91,700 - 93,699	\$92,682	2.779	4,343	0	0	0	0	0	0	0	0	0
93,700 - 95,699	\$94,776	2.025	3,165	0	0	0	0	0	0	0	0	0
95,700 - 97,699	\$96,754	1.649	2,577	0	0	0	0	0	0	0	0	0
97,700 - 99,699	\$98,799	3.015	4,712	0	0	0	0	0	0	0	0	0
99,700 - 101,699	\$100,824	2.025	3,165	0	0	0	0	0	0	0	0	0
101,700 - 103,699	\$102,818	1.083	1,692	0	0	0	0	0	0	0	0	0
103,700 - 105,699	\$104,762	1.319	2,061	0	0	0	0	0	0	0	0	0
105,700 - 107,699	\$106,724	2.355	3,680	0	0	0	0	0	0	0	0	0
107,700 - 109,699	\$108,858	1.272	1,988	0	0	0	0	0	0	0	0	0
109,700 - 111,699	\$110,533	1.696	2,650	0	0	0	0	0	0	0	0	0
111,700 - 113,699	\$112,778	0.895	1,399	0	0	0	0	0	0	0	0	0
113,700 - 115,699	\$114,802	1.083	1,692	0	0	0	0	0	0	0	0	0
\$115,700 - over	\$165,875	11.634	18,181	0	0	0	0	0	0	0	0	0
TOTAL		100.000	156,278						0	0	0	
Total Taxable Earnings									0	0	0	
Employer Tax Rate									6.20%	13.10%	1.45%	
Quarterly Payment									\$0	\$0	\$0	
Total Tier I, Tier II, and Medicare Paid this Quarter												\$0

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

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

See footnotes at end of table.

RCAF Unemployment Insurance Tax

	<u>Unemployment Ins.</u>			RRB	Factor	Avg. Ann.	Un. Ins.
	<u>Tax</u>	<u>Earnings</u>	<u>Hourly</u>	<u>Sample</u>	<u>To Update</u>	<u>Taxable</u>	<u>Hourly</u>
	<u>Rate</u>	<u>Base</u>	<u>Earnings</u>	<u>Year</u>	<u>RRB Sample</u>	<u>Earnings</u>	<u>Rate</u>
			\$36.269	(2012)			
2013 Avg.	0.67%	\$16,860	\$36.760		1.013538	\$15,578.13	\$0.057
3Q/14 reb.	0.68%	\$17,280	\$38.308		1.056219	\$15,976.08	\$0.059
4Q/14	0.68%	\$17,280	\$38.319		1.056522	\$15,976.25	\$0.059
1Q/15	2.31%	\$17,460	\$39.385		1.085914	\$16,152.67	\$0.204
2Q/15	2.31%	\$17,460	\$39.595		1.091704	\$16,155.78	\$0.204
3Q/15	2.31%	\$17,460	\$39.581		1.091318	\$16,155.57	\$0.204
			\$36.760	(2013)			
2014 Avg.	0.68%	\$17,280	\$38.866		1.057291	\$16,395.26	\$0.059
3Q/15 reb.	2.31%	\$17,460	\$40.503		1.101823	\$16,583.82	\$0.203
4Q/15	2.31%	\$17,460	\$40.590		1.104189	\$16,585.04	\$0.203
1Q/16	2.73%	\$17,460	\$40.888		1.112296	\$16,589.15	\$0.240
2Q/16	2.73%	\$17,460	\$40.731		1.108025	\$16,586.99	\$0.240
3Q/16	2.73%	\$17,460	\$40.545		1.102965	\$16,584.41	\$0.240
			\$38.866	(2014)			
2015 Avg.	2.31%	\$17,460	\$39.887		1.026257	\$16,460.37	\$0.208
3Q/16 reb.	2.73%	\$17,460	\$39.731		1.022244	\$16,458.00	\$0.246
4Q/16	2.73%	\$17,460	\$39.703		1.021523	\$16,457.57	\$0.246
1Q/17	3.37%	\$18,540	\$39.736		1.022372	\$17,436.31	\$0.321
2Q/17	3.37%	\$18,540	\$39.738		1.022424	\$17,436.34	\$0.321
3Q/17	3.37%	\$18,540	\$39.775		1.023376	\$17,436.97	\$0.321
			\$39.887	(2015)			
2016 Avg.	2.73%	\$17,460	\$39.231		0.983554	\$16,664.96	\$0.247
3Q/17 reb.	3.37%	\$18,540	\$39.154		0.981623	\$17,655.72	\$0.323
4Q/17	3.37%	\$18,540	\$39.156		0.981673	\$17,655.75	\$0.323
1Q/18	3.76%	\$18,720	\$40.555		1.016747	\$17,843.78	\$0.364
2Q/18					0.000000		\$0.000
3Q/18					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.

The MEANS Procedure

Variable	N	Sum	Mean
ANUAL_US	2752	45861976.95	16664.96 ✓
QTRLY_US	2752	49106085.05	17843.78 ✓

The MEANS Procedure

Variable	N	Sum	Mean
FactorA	2752	2706.74	0.9835540 ✓
FactorQ	2752	2798.09	1.0167470 ✓
Capa	2752	48049920.00	17460.00 ✓
Capq	2752	51517440.00	18720.00 ✓



ASSOCIATION OF AMERICAN RAILROADS

MEMORANDUM

TO: File
FROM: Tiffany Placker
cc: Clyde Crimmel
DATE: November 27, 2017
RE: Unemployment Insurance Tax Rate for 2018

Unemployment Insurance rates for 2018 can range from a minimum of 0.65 percent to a maximum of 12 percent on monthly earnings up to \$1,560. A 1.5 percentage point surcharge will be in effect for 2018, meaning the minimum tax rate is effectively 2.15 percent. Michael Rizzo at the Railroad Retirement Board said in his November e-mail that the weighted average 2018 Unemployment Insurance rate for Class I railroads is **3.76 percent** which includes Delaware and Hudson Railway (D&H) and Dakota, Minnesota & Eastern Railroad Corporation (DME).

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

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

See footnotes at end of table.

PETROLEUM & OTHER LIQUIDS

OVERVIEW DATA ▾ ANALYSIS & PROJECTIONS ▾

GLOSSARY ▾ FAQs ▾



Spot Prices

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

Period:

Download Series History
 Definitions, Sources & Notes

Product by Area	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	View History
Crude Oil							
WTI - Cushing, Oklahoma	48.48	45.18	46.63	48.04	49.82	51.58	1986-2017
Brent - Europe	50.33	46.37	48.48	51.70	56.15	57.51	1987-2017
Conventional Gasoline							
New York Harbor, Regular	1.540	1.445	1.562	1.688	1.867	1.715	1986-2017
J.S. Gulf Coast, Regular	1.519	1.432	1.518	1.638	1.753	1.652	1986-2017
WBOB Regular Gasoline							
Los Angeles	1.746	1.619	1.669	1.807	1.823	1.761	2003-2017
No. 2 Heating Oil							
New York Harbor	1.454	1.332	1.423	1.519	1.708	1.707	1986-2017
Ultra-Low-Sulfur No. 2 Diesel Fuel							
New York Harbor	1.514	1.417	1.521	1.631	1.791	1.799	2006-2017
J.S. Gulf Coast	1.482	1.386	1.486	1.601	1.777	1.756	2006-2017
Los Angeles	1.547	1.460	1.570	1.697	1.915	1.863	1996-2017
Kerosene-Type Jet Fuel							
J.S. Gulf Coast	1.412	1.295	1.417	1.561	1.800	1.659	1990-2017
Propane							
Mont Belvieu, Texas	0.640	0.590	0.647	0.758	0.883	0.934	1992-2017

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: 11/22/2017
Next Release Date: 11/29/2017

PETROLEUM & OTHER LIQUIDS

Spot Prices

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

Period:

 Download Series History
  Definitions, Sources & Notes

Product by Area		10/20/17	10/27/17	11/03/17	11/10/17	11/17/17	11/24/17	View History
Crude Oil								
WTI - Cushing, Oklahoma	 	51.74	52.51	54.59	57.05	55.81	57.47	1986-2017
Brent - Europe	 	57.78	58.58	61.04	64.29	61.52	62.68	1987-2017
Conventional Gasoline								
New York Harbor, Regular	 	1.711	1.794	1.836	1.912	1.802	1.802	1986-2017
J.S. Gulf Coast, Regular	 	1.653	1.716	1.770	1.832	1.718	1.722	1986-2017
BOB Regular Gasoline								
Los Angeles	 	1.799	1.840	1.904	2.023	1.783	1.721	2003-2017
No. 2 Heating Oil								
New York Harbor	 	1.710	1.744	1.781	1.827	1.815	1.844	1986-2017
Ultra-Low-Sulfur No. 2 Diesel Fuel								
New York Harbor	 	1.802	1.828	1.875	1.928	1.909	1.932	2006-2017
J.S. Gulf Coast	 	1.757	1.782	1.820	1.868	1.843	1.859	2006-2017
Los Angeles	 	1.859	1.890	1.959	2.063	1.969	1.942	1996-2017
Kerosene-Type Jet Fuel								
J.S. Gulf Coast	 	1.651	1.676	1.706	1.779	1.744	1.775	1990-2017
Propane								
Mont Belvieu, Texas	 	0.914	0.949	0.965	0.956	0.988	1.000	1992-2017

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: 11/29/2017

Next Release Date: 12/6/2017

U.S.**Summary by Composition Category**

	MS-2016		Prev. Idx	2017Q4		Calculation		Relative of Change
	MS Amount	Weight		Cur Idx		Prev. Idx	Cur Idx	
Forest Products	778,802,463	0.1337	315.68	301.28		42.21	40.28	
Metal Products	3,300,469,719	0.5666	170.05	173.06		96.35	98.06	
Misc. Products	1,745,997,298	0.2997	366.70	354.78		109.90	106.33	
Total	5,825,269,480	1.0000	248.46	244.67				0.9847
Total Linked			240.19	236.52				
'77 = 100 Link Fact.= 1.423			341.79	336.57				
'80 = 100 Link Fact.= 1.061			254.84	250.95				

As info only	Change
Forest Products	-4.56%
Metal Products	1.77%
Misc. Products	<u>-3.25%</u>
Total ('80=100)	-1.53%
Rounded 80 Indices	-1.5%
Rounded 77 Indices	-1.5%

RCAF (Forecast)

	1980	June 3Q/17	Sept. 4Q/17	Dec. 1Q/18	Mar. 2Q/18	June 3Q/18
RATE						
RR-OWNED TIME	31.00	64.00	64.00	64.00	--	--
RR-OWNED MILEAGE	4.69	6.70	6.70	6.70	--	--
PRIVATELY-OWNED CARS	25.47	53.60	54.31	54.38	--	--
AUTORACKS	47.00	83.56	84.81	86.65	--	--
INDEX						
RR-OWNED TIME	100.0	206.5	206.5	206.5	--	--
RR-OWNED MILEAGE	100.0	142.9	142.9	142.9	--	--
PRIVATELY-OWNED CARS	100.0	210.4	213.2	213.5	--	--
AUTORACKS	100.0	177.8	180.4	184.4	--	--
CAR HIRE INDEX (old wts) 2015	100.0	204.5	--	--	--	--
CAR HIRE INDEX (new wts) 2016	100.0	203.2	205.6	206.2	--	--
CAR HIRE INDEX (LINKED)	100.0	204.5	206.9	207.5	--	--

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

Note: Indexes are rounded, rates are full float.

Equipment Rents Data From CHARM

	2017 (first day of month)						2018 (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)	8,341	8,815	9,030	9,254	9,520	9,614								
Rate (in cents)														
Superstructures #3 - Auto Rack	54.0	62.0	65.0	67.0	71.0	73.0								
All other #1 - Time	64.0	64.0	64.0	64.0	64.0	64.0								
All other #2 - Mileage	6.7	6.7	6.7	6.7	6.7	6.7								
Private Equipment														
No. of Cars (cars with rates only)														
Superstructures (Vehicular Flats)	56,048	56,095	56,066	55,978	55,842	55,875								
Covered Hoppers	397,633	400,103	402,279	403,818	405,332	407,888								
Tank Cars	405,127	405,272	405,476	405,805	405,481	405,753								
Others	291,842	291,943	291,843	292,787	292,671	293,501								
Rate (in cents)														
Superstructures #1 - Time	84.0	84.0	84.0	84.0	84.0	84.0								
Superstructures #2 - Mileage	1.4	1.4	1.4	1.4	1.4	1.4								
Superstructures #3 - Auto Rack	88.0	88.0	88.0	89.0	89.0	89.0								
Covered Hoppers #2 - Mileage	45.5	45.6	45.7	45.8	45.9	45.9								
Tank Cars #2 - Mileage	85.2	85.3	86.8	86.9	87.0	87.0								
Others #1 - Time	87.0	87.0	87.0	87.0	87.0	87.0								
Others #2 - Mileage	8.1	8.1	8.1	8.1	8.1	8.1								
AVERAGE RATES														
Private Superstructures	21.14	21.14	21.14	21.14	21.14	21.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Private Others	27.41	27.41	27.41	27.41	27.41	27.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Private Total	53.70	53.76	54.31	54.36	54.42	54.38	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Autoracks	83.60	84.47	84.81	85.88	86.38	86.65	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

WEIGHTS	"Old Wts"	"New Wts"
	2015	2016
For RCAF & RCR		
RR-owned Time	0.124	0.091
RR-owned Mileage	0.062	0.058
Privately-owned Cars	0.776	0.762
Autoracks	0.038	0.089
----- Check sum	1.000	1.000

Weights for Equipment Rents (not used in Car Hire calculation)		
	2015	2016
Car Hire - U.S.	0.582	0.583
Lease Rentals - U.S.	0.418	0.417
----- Check sum	1.000	1.000

Note: 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 - () Hire Rate Report

Average Car Rental Rates for 12/2017

Ownership	Car Group	Car Count	Time Rate (cents/hour)	Mileage Rate (\$/mile)	Auto Rack Rate (cents/hour)
Railroad	Vehicular Flats	9,614	113	0.071	73
Railroad	Number of Zero-Rated Vehicular Flats	97	.	.	.
Railroad	All Other Cars	425,442	64	0.067	.
Railroad	Number of Zero-Rated Other Cars	17,066	.	.	.
Railroad	Total Railroad Equipment	452,219	.	.	.
		.	.	.	.
Private	Vehicular Flats	55,875	84	0.014	89
Private	Number of Zero-Rated Vehicular Flats	69	.	.	.
Private	Covered Hoppers	407,888	0	0.459	.
Private	Number of Zero-Rated Covered Hoppers	13,569	.	.	.
Private	Tanks	405,753	0	0.870	.
Private	Number of Zero-Rated Tanks	8,791	.	.	.
Private	All Other Cars	293,501	87	0.081	.
Private	Number of Zero-Rated Other Cars	23,489	.	.	.
Private	Total Private Equipment	1,208,935	.	.	.

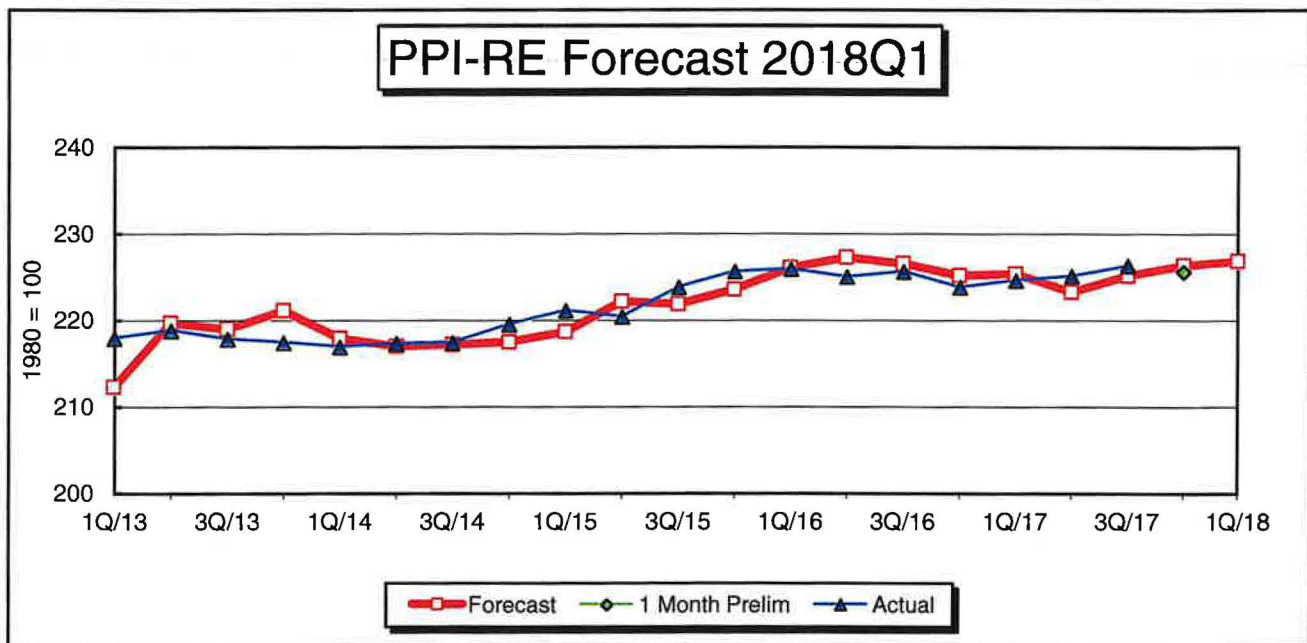
Notes
This report excludes these car types: D (Locomotives), M (MoW, EOTs, etc.), U (Containers), Z (Trailers).
All TTX equipment (including ABOX, RBOX, GONX) is contained in the Private section of report.
Equipment can be zero rated due to owners supplying incorrect or insufficient information to the 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/13	212.2	217.9	
2Q/13	219.6	218.8	
3Q/13	218.9	217.8	
4Q/13	221.0	217.4	
1Q/14	217.8	216.9	
2Q/14	216.9	217.3	
3Q/14	217.1	217.4	
4Q/14	217.4	219.5	
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		225.6
1Q/18	226.8		

1980 Base

	PPI-RE Forecast		Percent Change			
	(82=100)	(80=100)	Yr Ago Actual	Latest Month Actual	2nd Prev Qtr Actual	Previous Forecast
2018Q1						
Low	201.8	223.2	-0.6%			
Midpoint	205.0	226.8	1.0%	0.5%	0.2%	0.2%
High	208.1	230.2	2.5%			



Forecast Report for PPIRE

Description: PPIRE

Expert Analysis

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

The cumulative MAD for Exponential smoothing was 0.92 and for Box-Jenkins was 1.26.
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**

Holt exponential smoothing: Linear trend, No seasonality
LN(0.675, 0.018)

Component	Smoothing Wgt	Final Value
Level	0.6755	204.2
Trend	0.01794	0.1834

Within-Sample Statistics

Sample size	72	No. parameters	2
Mean	198.63	Std. deviation	4.81
R-square	0.96	Adj. R-square	0.96
Durbin-Watson	1.99	Ljung-Box(18)	16.0 P=0.40
Forecast error	1	BIC	1.05
MAPE	0.36	SMAPE	0.36
RMSE	0.99	MAD	0.72
MAD/Mean Ratio	0		

Historic Data

Date	Historic
2011-Nov	187.7
2011-Dec	189.9
2012-Jan	190.1
2012-Feb	190.1
2012-Mar	190.6
2012-Apr	191.8
2012-May	191.6
2012-Jun	191.5
2012-Jul	192
2012-Aug	190.4
2012-Sep	190.9
2012-Oct	194.9
2012-Nov	193.9
2012-Dec	194.1
2013-Jan	196

2013-Feb	195.2
2013-Mar	195.8
2013-Apr	195.2
2013-May	198.1
2013-Jun	196.3
2013-Jul	195.4
2013-Aug	194.5
2013-Sep	194.6
2013-Oct	195.1
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	204.6 ✓
2017-Aug	204.6 ✓
2017-Sep	204.6 ✓
2017-Oct	203.9 ✓

Forecast Data

Date	2.5 Lower	Forecast	97.5 Upper
2017-Nov	202.343	204.401	206.459
2017-Dec	202.087	204.584	207.082
2018-Jan	201.897	204.768	207.638
2018-Feb	201.751	204.951	208.151
2018-Mar	201.635	205.134	208.634
2018-Apr	201.543	205.318	209.092
2018-May	201.47	205.501	209.532
2018-Jun	201.413	205.685	209.957
2018-Jul	201.368	205.868	210.369
2018-Aug	201.334	206.052	210.769
2018-Sep	201.31	206.235	211.16
2018-Oct	201.294	206.418	211.543

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PPI Commodity Data
Series Id: WPU144
Not Seasonally Adjusted
Group: Transportation equipment
Item: Railroad equipment
Base Date: 198200

Download: [XLS](#)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2016	204.0	204.2	203.3	203.0	203.5	203.5	203.5	204.4	203.7	203.7	201.5	201.8
2017	201.9	204.1	203.3	203.4	203.5	204.6	204.6(P)	204.6(P)	204.6(P)	203.9(P)		

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

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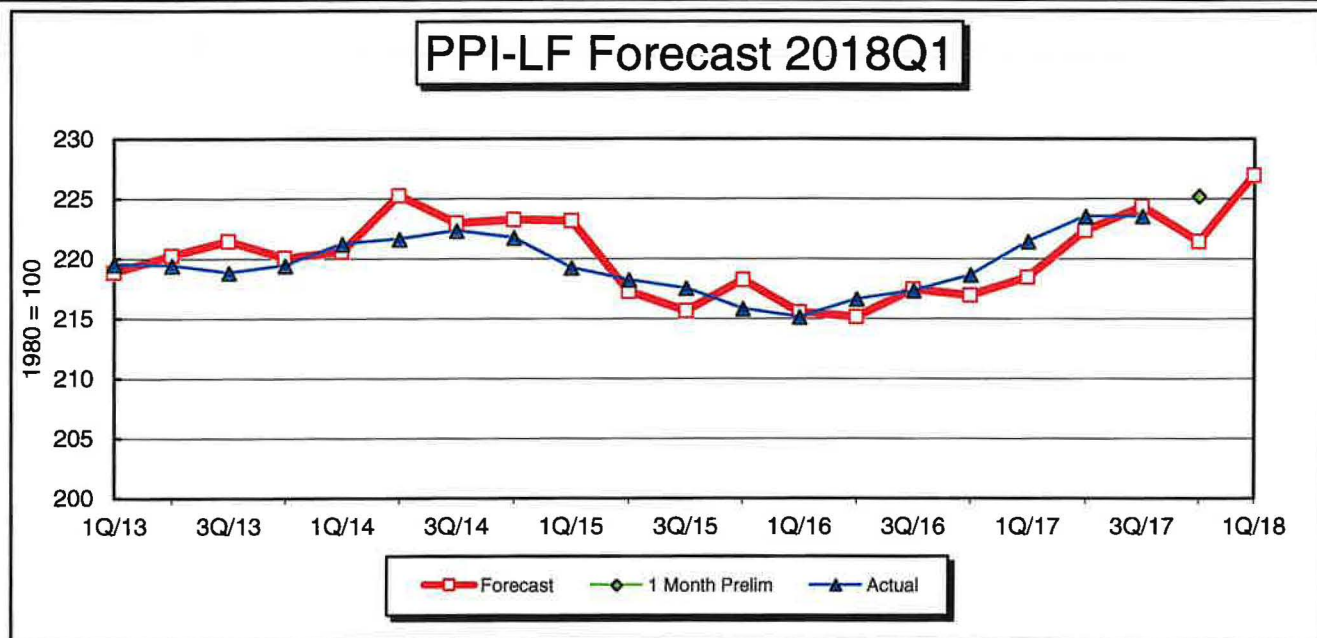
11/14/2017

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

	Forecast	Actual	1 Month Prelim
1Q/13	218.8	219.5	
2Q/13	220.2	219.4	
3Q/13	221.4	218.8	
4Q/13	220.0	219.4	
1Q/14	220.5	221.2	
2Q/14	225.2	221.6	
3Q/14	222.9	222.3	
4Q/14	223.2	221.7	
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		225.2
1Q/18	226.9		

1980 Base

	PPI-LF Forecast		Percent Change			
	(82=100)	(80=100)	Yr Ago Actual	Latest Month Actual	2nd Prev Qtr Actual	Previous Forecast
2018Q1						
Low	199.2	223.3	0.9%			
Midpoint	202.4	226.9	2.5%	0.8%	1.5%	2.5%
High	205.6	230.5	4.1%			



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 1.94 and for Box-Jenkins was 1.81.
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(1, 1, 0)

Term	Coefficient	Std. Error	t-Statistic	Significance
a[1]	0.5962	0.09902	6.021	1

Within-Sample Statistics

Sample size	72	No. parameters	1
Mean	195.54	Std. deviation	2.19
R-square	0.95	Adj. R-square	0.95
Durbin-Watson	1.88	Ljung-Box(18)	22.4 P=0.78
Forecast error	0.47	BIC	0.48
MAPE	0.18	SMAPE	0.19
RMSE	0.47	MAD	0.36
MAD/Mean Ratio	0		

Historic Data

Date	Historic
2011-Nov	193.2
2011-Dec	192.7
2012-Jan	193.8
2012-Feb	194.7
2012-Mar	195.7
2012-Apr	195.8
2012-May	195.4
2012-Jun	193.7
2012-Jul	193.3
2012-Aug	193.3
2012-Sep	193.7
2012-Oct	193.9
2012-Nov	194
2012-Dec	194.2
2013-Jan	195.3

2013-Feb	196.1
2013-Mar	196.1
2013-Apr	195.9
2013-May	195.5
2013-Jun	195.4
2013-Jul	195.2
2013-Aug	195.3
2013-Sep	195.1
2013-Oct	195.4
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
2017-Aug	199.5
2017-Sep	199.7
2017-Oct	200.9

Forecast Data

Date	2.5 Lower	Forecast	97.5 Upper
2017-Nov	200.688	201.615	202.543
2017-Dec	200.295	202.042	203.789
2018-Jan	199.78	202.296	204.812
2018-Feb	199.229	202.448	205.666
2018-Mar	198.682	202.538	206.395
2018-Apr	198.155	202.592	207.029
2018-May	197.656	202.624	207.593
2018-Jun	197.185	202.643	208.102
2018-Jul	196.741	202.655	208.569
2018-Aug	196.322	202.662	209.001
2018-Sep	195.925	202.666	209.406
2018-Oct	195.548	202.668	209.788

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Series Id: WPU03T15M05

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
2016	191.9	191.8	192.1	192.8	193.4	193.7	193.7	194.0	193.9	194.3	194.9	195.6
2017	196.8	197.8	198.7	199.3	199.2	199.4	199.0(P)	199.5(P)	199.7(P)	200.9(P)		

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

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Forecast Error Calculation

	2015 Weight	Third Quarter 2017		Difference		Notes
		2017Q3 Forecast	2017Q3 Actual	Pt.	Pct.	
Labor	35.0%	422.8	422.8	0.0	0%	* actual=forecast
Fuel	13.4%	202.3	192.4	-9.9	-5%	from 1st month of quarter
M&S	5.4%	252.6	252.6	0.0	0%	* actual=forecast
Equip Rents	5.8%	223.8	224.2	0.4	0%	from Equipment Rents below
Depreciation	13.9%	225.1	226.3	1.2	1%	PPI-RE 204.60 204.60 204.60 0.9040
Interest	1.9%	60.6	60.6	0.0	0%	* actual=forecast
Other	24.6%	224.3	223.5	-0.8	0%	PPI-LF 199.00 199.50 199.70 0.8920
Weighted Avg	100.0%					
1980 = 100		289.3	288.0			calculated
1980 = 100 (linked)		268.7	265.7			calculated
4Q17 = 100	2.645	101.6	100.5			calculated
4Q12 = 100	2.976	90.3	89.3			calculated
4Q07 = 100	2.459	109.3	108.1			calculated
4Q02 = 100	1.921	139.9	138.3			calculated
4Q97 = 100	1.732	155.1	153.4			calculated
Forecast Error		-1.1				calculated -0.011 = RCAF adj.
<u>Prior Quarter</u>						
1980 = 100		290.8	289.8 **			
1980 = 100 (linked)		270.1	267.4			
4Q17 = 100		102.1	101.1			calculated
4Q12 = 100		90.8	89.9			calculated
4Q07 = 100		109.8	108.7			calculated
4Q02 = 100		140.6	139.2			calculated
4Q97 = 100		155.9	154.4			calculated
<u>Equipment Rents</u>						
Car Hire	58.2%	204.5	205.2			from Equipment Rents/CHARM
Lease Rentals	41.8%	224.3	223.5			(equals PPI-LF from above)
Weighted Average		212.8	212.8			calculated
Linked		223.8	224.2			calculated
<u>Prior Quarter</u>						
Weighted Average		211.7	212.4 **			
Linked		222.6	223.8			
Sum of Weights	ok					** if fourth quarter, weighted avg for prior needs to use new weights, linked is ok
Sum of ER Wt.	ok					

Factors to change from
1982=100 to 1980 = 100

All-Inclusive Index (Actual)

	15 Wts	3Q/16 14 Wts	3Q/16 15 Wts	% Chg.	4Q/16 15 Wts	% Chg.	1Q/17 15 Wts	% Chg.	2Q/17 15 Wts	% Chg.	3Q/17 15 Wts	% Chg.
Labor	35.0%	415.2	415.2	0.0%	405.1	-2.4%	421.2	4.0%	421.4	0.0%	422.8	0.3%
Fuel	13.4%	183.1	183.1	0.0%	201.9	10.3%	206.5	2.3%	205.7	-0.4%	192.4	-6.5%
M&S	5.4%	240.6	240.6	0.0%	245.8	2.2%	274.3	11.6%	264.8	-3.5%	252.6	-4.6%
Equipment Rents	5.8%	217.6	217.6	0.0%	224.8	3.3%	226.3	0.7%	223.8	-1.1%	224.2	0.2%
Depreciation	13.9%	225.6	225.6	0.0%	223.8	-0.8%	224.6	0.4%	225.1	0.2%	226.3	0.5%
Interest	1.9%	57.5	57.5	0.0%	60.6	5.4%	60.6	0.0%	60.6	0.0%	60.6	0.0%
Other	24.6%	217.3	217.3	0.0%	218.6	0.6%	221.4	1.3%	223.5	0.9%	223.5	0.0%
	<u>1.0000</u>											
Weighted Avg.		272.8	281.4	3.2%	281.2	-0.1%	289.9	3.1%	289.8	0.0%	288.0	-0.6%
Linked		259.7			259.5	-0.1%	267.5	3.1%	267.4	0.0%	265.7	-0.6%
10/1/80	1.027	252.9			252.7	-0.1%	260.5	3.1%	260.4	0.0%	258.7	-0.7%
10/1/82	1.209	214.8			214.6	-0.1%	221.3	3.1%	221.2	0.0%	219.8	-0.6%
4Q/87	1.322	196.4			196.3	-0.1%	202.3	3.1%	202.3	0.0%	201.0	-0.6%
4Q/92	1.569	165.5			165.4	-0.1%	170.5	3.1%	170.4	-0.1%	169.3	-0.6%
4Q/97	1.732	149.9			149.8	-0.1%	154.4	3.1%	154.4	0.0%	153.4	-0.6%
4Q/02	1.921	135.2			135.1	-0.1%	139.3	3.1%	139.2	-0.1%	138.3	-0.6%
4Q/07	2.459	105.6			105.5	-0.1%	108.8	3.1%	108.7	-0.1%	108.1	-0.6%
4Q/12	2.976	87.3			87.2	-0.1%	89.9	3.1%	89.9	0.0%	89.3	-0.7%
4Q/17	2.645	98.2			98.1	-0.1%	101.1	3.1%	101.1	0.0%	100.5	-0.6%

Equipment Rents

Car Hire	58.2%	199.0	199.0	0.0%	209.6	5.3%	210.1	0.2%	204.5	-2.7%	205.2	0.3%
Lease Rentals	41.8%	217.3	217.3	0.0%	218.6	0.6%	221.4	1.3%	223.5	0.9%	223.5	0.0%
	<u>1.0000</u>											
ER Weighted Avg		207.0	206.6	-0.2%	213.4	3.3%	214.8	0.7%	212.4	-1.1%	212.8	0.2%
ER Linked		217.6			224.8	3.3%	226.3	0.7%	223.8	-1.1%	224.2	0.2%

<i>Impact/Check of weight change</i>	<u>14 Wts</u>	<u>15 Wts</u>
Labor	131.618	145.320
Fuel	38.268	24.535
Material & Supplies	12.511	12.992
Equipment Rents	11.750	12.621
Depreciation	28.426	31.358
Interest	0.863	1.093
Other	49.327	53.456
Weighted Avg.	272.763	281.375
ER Weighted Avg.	206.9605	206.6494

As info only

RCAF Fuel (Actual All-Inclusive Index)

July 2017

Monthly Report

	July 2017 Price (cents) (1)	1/1/81 Price (cents) (2)	1/91 New Method Linking Factors (3)	July 2017 Index 1/1/81=100 (4)	Linking Factor 1980=100 (5)	July 2017 1980=100 Current Index (6)
U.S.	157.48	89.34	99.415	175.24	1.096	192.06

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

(6) = (4) x (5)

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

	July 2017 1980=100 Current Index	Adjustment Factor	July 2017 1980=100 Linked Index
U.S.	192.06	1.00192	192.43 ←

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

RCAF (Actual)

		1980	Aug 3Q/16	Nov 4Q/16	Feb 1Q/17	May 2Q/17	Aug 3Q/17
RATE							
RR-OWNED TIME		31.00	64.00	64.00	64.00	64.00	64.00
RR-OWNED MILEAGE		4.69	6.70	6.70	6.70	6.70	6.70
PRIVATELY-OWNED CARS		25.47	51.76	55.20	55.44	53.57	53.76
AUTORACKS		47.00	83.37	85.43	81.82	83.62	84.47
INDEX							
RR-OWNED TIME		100.0	206.5	206.5	206.5	206.5	206.5
RR-OWNED MILEAGE		100.0	142.9	142.9	142.9	142.9	142.9
PRIVATELY-OWNED CARS		100.0	203.2	216.7	217.7	210.3	211.1
AUTORACKS		100.0	177.4	181.8	174.1	177.9	179.7
CAR HIRE INDEX (old wts)	2014	100.0	199.4	--	--	--	--
CAR HIRE INDEX (new wts)	2015	100.0	198.9	209.5	210.0	204.4	205.1
CAR HIRE INDEX (LINKED)		100.0	199.0	209.6	210.1	204.5	205.2

Note: Indexes are rounded, rates are full float.

Equipment Rents Data From CHARM

	2016 (first day of month)						2017 (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)	8,221	8,230	8,223	8,360	8,469	8,474	8,557	8,512	8,655	8,726	8,742	8,548	8,341	8,815
Rate (in cents)														
Superstructures #3 - Auto Rack	59.0	59.0	59.0	60.0	62.0	61.0	62.0	61.0	62.0	62.0	62.0	61.0	54.0	62.0
All other #1 - Time	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0	64.0
All other #2 - Mileage	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	6.7
Private Equipment														
No. of Cars (cars with rates only)														
Superstructures (Vehicular Flats)	55,135	55,284	55,495	55,461	55,557	55,700	55,769	55,751	55,736	55,937	55,968	56,018	56,048	56,095
Covered Hoppers	384,653	386,864	388,061	388,522	390,438	392,048	393,488	394,008	395,193	396,320	397,125	397,304	397,633	400,103
Tank Cars	401,942	402,781	403,243	403,552	404,110	404,703	404,987	405,072	405,140	405,503	405,420	404,967	405,127	405,272
Others	289,832	289,264	289,515	290,003	290,971	291,569	292,302	292,750	292,543	293,026	293,126	292,362	291,842	291,943
Rate (in cents)														
Superstructures #1 - Time	83.0	83.0	83.0	83.0	83.0	83.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0	84.0
Superstructures #2 - Mileage	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.4	1.4	1.4	1.4
Superstructures #3 - Auto Rack	87.0	87.0	88.0	88.0	89.0	90.0	84.0	85.0	85.0	86.0	87.0	87.0	88.0	88.0
Covered Hoppers #2 - Mileage	45.2	45.3	45.3	45.3	45.3	45.2	45.3	45.4	45.5	45.5	45.6	45.5	45.5	45.6
Tank Cars #2 - Mileage	80.4	80.6	89.7	89.9	90.0	90.1	90.3	90.4	84.8	84.9	85.0	85.1	85.2	85.3
Others #1 - Time	82.0	82.0	83.0	83.0	84.0	84.0	86.0	86.0	86.0	86.0	86.0	86.0	87.0	87.0
Others #2 - Mileage	7.8	7.9	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.1	8.1
AVERAGE RATES														
Private Superstructures	21.11	21.11	21.11	21.11	21.11	21.11	21.34	21.34	21.34	21.34	21.14	21.14	21.14	21.14
Private Others	26.00	26.10	26.43	26.43	26.65	26.65	27.09	27.09	27.09	27.09	27.09	27.19	27.41	27.41
Private Total	51.61	51.76	55.07	55.13	55.20	55.18	55.39	55.44	53.50	53.52	53.57	53.60	53.70	53.76
Autoracks	83.37	83.37	84.26	84.33	85.43	86.17	81.07	81.82	81.91	82.76	83.62	83.56	83.60	84.47

WEIGHTS	*Old Wts*	*New Wts*
	2014	2015
For RCAF & RCR		
RR-owned Time	0.156	0.124
RR-owned Mileage	0.060	0.062
Privately-owned Cars	0.758	0.776
Autoracks	0.026	0.038
----- Check sum	1.000	1.000

Weights for Equipment Rents (not used in Car Hire calculation)		
	2014	2015
Car Hire - U.S.	0.565	0.582
Lease Rentals - U.S.	0.435	0.418
----- Check sum	1.000	1.000

Note: 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 - Umler Hire Rate Report

Average Car Rental Rates for 08/2017

Ownership	Car Group	Car Count	Time Rate (cents/hour)	Mileage Rate (\$/mile)	Auto Rack Rate (cents/hour)
Railroad	Vehicular Flats	8,815	116	0.077	62
Railroad	Number of Zero-Rated Vehicular Flats	58	.	.	.
Railroad	All Other Cars	431,073	64	0.067	.
Railroad	Number of Zero-Rated Other Cars	17,340	.	.	.
Railroad	Total Railroad Equipment	457,286	.	.	.
		.	.	.	.
Private	Vehicular Flats	56,095	84	0.014	88
Private	Number of Zero-Rated Vehicular Flats	27	.	.	.
Private	Covered Hoppers	400,103	0	0.456	.
Private	Number of Zero-Rated Covered Hoppers	13,748	.	.	.
Private	Tanks	405,272	0	0.853	.
Private	Number of Zero-Rated Tanks	8,668	.	.	.
Private	All Other Cars	291,943	87	0.081	.
Private	Number of Zero-Rated Other Cars	24,642	.	.	.
Private	Total Private Equipment	1,200,498	.	.	.

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.

RCAF - Depreciation

Series ID : wpu144

Not Seasonally Adjusted

Group : Transportation equipment

Item : Railroad equipment

		Forecast Year 2018			
		As reported at end of month 82=100			
		Nov.	Feb.	May	Aug.
For Forecast	→	18Q1	18Q2	18Q3	18Q4
For Actual	→	17Q3	17Q4	18Q1	18Q2
January	2017	201.9	201.9	201.9	201.9
February	2017	204.1	204.1	204.1	204.1
March	2017	203.3	203.3	203.3	203.3
April	2017	203.4	203.4	203.4	203.4
May	2017	203.5	203.5	203.5	203.5
June	2017	204.6	204.6	204.6	204.6
July	2017	204.6			
August	2017	204.6			
September	2017	204.6			
October	2017	203.9			
November	2017				
December	2017				
January	2018				
February	2018				
March	2018				
April	2018				
May	2018				
June	2018				
July	2018				
Actual Qtr.		204.6	NA	NA	NA

1980=100

Actual Qtr.

First Mo. next qtr.

226.3	NA	NA	NA
225.6	NA	NA	NA

0.904 =1980

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PPI Commodity Data

Series Id: WPU144
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
2016	204.0	204.2	203.3	203.0	203.5	203.5	203.5	204.4	203.7	203.7	201.5	201.8
2017	201.9	204.1	203.3	203.4	203.5	204.6	204.6(P)	204.6(P)	204.6(P)	203.9(P)		

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

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11/14/2017

RCAFdepreciation

Association of American Railroads

11/14/2017

RCAF - Other

Series ID : wpu03t15m05

Not Seasonally Adjusted

Group : Industrial Commodities less fuels

Item : Industrial commodities less fuels

		Forecast Year 2018			
		As reported at end of month 82=100			
		Nov.	Feb.	May	Aug.
For Forecast	→	18Q1	18Q2	18Q3	18Q4
For Actual	→	17Q3	17Q4	18Q1	18Q2
January	2017	196.8	196.8	196.8	196.8
February	2017	197.8	197.8	197.8	197.8
March	2017	198.7	198.7	198.7	198.7
April	2017	199.3	199.3	199.3	199.3
May	2017	199.2	199.2	199.2	199.2
June	2017	199.4	199.4	199.4	199.4
July	2017	199.0			
August	2017	199.5			
September	2017	199.7			
October	2017	200.9			
November	2017				
December	2017				
January	2018				
February	2018				
March	2018				
April	2018				
May	2018				
June	2018				
July	2018				
Actual Qtr.		199.4	NA	NA	NA
1980=100					
Actual Qtr.		223.5	NA	NA	NA
First Mo. next qtr.		225.2	NA	NA	NA

0.892 =1980

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PPI Commodity Data

Series Id: WPU03T15M05

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
2016	191.9	191.8	192.1	192.8	193.4	193.7	193.7	194.0	193.9	194.3	194.9	195.6
2017	196.8	197.8	198.7	199.3	199.2	199.4	199.0(P)	199.5(P)	199.7(P)	200.9(P)		

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

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MEDIATION AGREEMENT

THIS AGREEMENT, made this 1st day of December, 2017, by and between the participating carriers listed in Exhibit A attached hereto and represented by the National Carriers' Conference Committee, and the employees shown thereon and represented by the American Train Dispatchers Association, witnesseth:

IT IS HEREBY AGREED:

ARTICLE I – WAGES**Section 1 – First General Wage Increase**

Effective January 1, 2015, all standard rates of pay in effect on December 31, 2014 for employees represented by the ATDA were increased by three (3) percent pursuant to Article I, Section 6 of the February 6, 2012 National ATDA Agreement. This 3% general wage increase was mutually negotiated to apply as the first-year increase of this five-year Agreement, the term of which runs from January 1, 2015 through December 31, 2019.

Section 2 - Second General Wage Increase

Effective July 1, 2016, each basic monthly rate of pay in effect on June 30, 2016 for employees covered by this Agreement shall be increased in the amount of two (2) percent representing a general wage increase. Where basic monthly rates are not in effect, an equivalent adjustment shall be made.

Section 3 – Third General Wage Increase

Effective July 1, 2017, each basic monthly rate of pay in effect on June 30, 2017 for employees covered by this Agreement shall be increased in the amount of two (2) percent representing a general wage increase. Where basic monthly rates are not in effect, an equivalent adjustment shall be made.

Section 4 – Fourth General Wage Increase

Effective July 1, 2018, each basic monthly rate of pay in effect on June 30, 2018 for employees covered by this Agreement shall be increased in the amount of two-and-one-half (2.5) percent representing a general wage increase. Where basic monthly rates are not in effect, an equivalent adjustment shall be made.

Section 5 – Fifth General Wage Increase

Effective July 1, 2019, each basic monthly rate of pay in effect on June 30, 2019 for employees covered by this Agreement shall be increased in the amount of three (3) percent representing a general wage increase. Where basic monthly rates are not in effect, an equivalent adjustment shall be made.

ARTICLE II - HEALTH AND WELFARE

Part A – Employee Sharing of Plan Costs

Section 1 – Monthly Employee Cost-Sharing Contributions

The employee monthly cost-sharing contribution amount shall be \$228.89 until such time as otherwise mutually agreed by the parties during negotiations commencing when this Agreement becomes amendable pursuant to Article III.

Section 2 – Other Terms

Existing arrangements regarding the method of making employee cost-sharing contributions on a pre-tax basis shall be continued subject to the provisions of the Railway Labor Act.

Part B – Plan Changes

Section 1 – Continuation of Plans

The Railroad Employees National Health and Welfare Plan (“the Plan”), the Railroad Employees National Dental Plan, the Railroad Employees National Early

SIGNED AT WASHINGTON, D.C., THIS 1st DAY OF DECEMBER, 2017.

FOR THE PARTICIPATING
CARRIERS LISTED IN
EXHIBIT A REPRESENTED
BY THE NATIONAL CARRIERS'
CONFERENCE COMMITTEE:

FOR THE EMPLOYEES
REPRESENTED BY THE
AMERICAN TRAIN DIS-
PATCHERS ASSOCIATION:

A. Kenneth Bradley

David McCann

Robert Sperry

KS D

Edgar

Rory Broyles

Jeremy M. Jones

John Edgar

Scott Weaver

EXHIBIT A
(ATDA)

CARRIERS REPRESENTED BY THE NATIONAL CARRIERS' CONFERENCE COMMITTEE IN CONNECTION WITH NOTICES SERVED ON OR SUBSEQUENT TO NOVEMBER 1, 2014 BY AND ON BEHALF OF SUCH CARRIERS UPON THE AMERICAN TRAIN DISPATCHERS ASSOCIATION, AND NOTICES SERVED ON OR SUBSEQUENT TO NOVEMBER 1, 2014 BY THE GENERAL CHAIRMEN, OR OTHER RECOGNIZED REPRESENTATIVES, OF THE AMERICAN TRAIN DISPATCHERS ASSOCIATION UPON SUCH CARRIERS.

Subject to indicated footnotes, this authorization is co-extensive with notices filed and with provisions of current schedule agreements applicable to employees represented by the American Train Dispatchers Association.

The Belt Railway Company of Chicago

BNSF Railway Company

Consolidated Rail Corporation

CSX Transportation, Inc.

East Agreement

South Agreement

Indiana Harbor Belt Railroad Company

The Kansas City Southern Railway Company

Norfolk Southern Railway Company

The Alabama Great Southern Railroad Company

The Cincinnati, New Orleans & Texas Pacific Railway Company

Georgia Southern and Florida Railway Company

Northeast Illinois Regional Commuter Railroad Corporation (METRA) - 1

Northern Indiana Commuter Transportation District - 1

Soo Line Railroad Company d.b.a. C.P. - 1

National ATDA

Terminal Railroad Association of St. Louis - 1
Wisconsin Central Ltd. d.b.a. C.N.

* * * * *

Notes: 1 - Health & Welfare only

FOR THE CARRIERS:

A. Kenneth Brubaker

FOR THE ATDA:

J. J. McCann

December 1, 2017
Washington, D.C.

MEDIATION AGREEMENT

THIS AGREEMENT, made this 1st day of December, 2017 by and between the participating carriers listed in Exhibit A, attached hereto and made a part hereof, and represented by the National Carriers' Conference Committee, and the employees of such carriers shown thereon and represented by the Brotherhood of Locomotive Engineers and Trainmen, witnesseth:

IT IS HEREBY AGREED:**ARTICLE I – WAGES****Section 1 – First General Wage Increase**

Effective January 1, 2015, all standard rates of pay in effect on December 31, 2014 for employees represented by the BLET were increased by three (3) percent pursuant to Article I, Section 6 of the January 5, 2012 National BLET Agreement. This 3% general wage increase was mutually negotiated to apply as the first-year increase of this five-year Agreement, the term of which runs from January 1, 2015 through December 31, 2019.

Section 2 – Second General Wage Increase

(a) Effective July 1, 2016, all standard basic daily rates of pay for employees represented by the Brotherhood of Locomotive Engineers and Trainmen ("BLET") in effect on June 30, 2016 shall be increased by two (2) percent.

(b) In computing the increase under paragraph (a) above, two (2) percent shall be applied to the standard basic daily rates of pay applicable in the following weight-on-drivers brackets, and the amounts so produced shall be added to each standard basic daily rate of pay:

Passenger	- 600,000 and less than 650,000 pounds
Freight	- 950,000 and less than 1,000,000 pounds (through freight rates)

Yard Engineers - Less than 500,000 pounds
Yard Firemen - Less than 500,000 pounds
(separate computation covering five-day
rates and other than five-day rates)

Section 3 – Third General Wage Increase

Effective July 1, 2017, all standard basic daily rates of pay in effect on June 30, 2017 for employees represented by the BLET shall be increased by two (2) percent, computed and applied in the same manner prescribed in Section 2(b) above.

Section 4 – Fourth General Wage Increase

Effective July 1, 2018 all standard basic daily rates of pay in effect on June 30, 2018 for employees represented by the BLET shall be increased by two-and-one-half (2.5) percent, computed and applied in the same manner prescribed in Section 2(b) above.

Section 5– Fifth General Wage Increase

Effective July 1, 2019, all standard basic daily rates of pay in effect on June 30, 2019 for employees represented by the BLET shall be increased by three (3) percent, computed and applied in the same manner prescribed in Section 2(b) above.

Section 6 - Standard Rates

The standard basic daily rates of pay produced by application of the increases provided for in this Article are set forth in Appendix 1, which is a part of this Agreement.

Section 7 - Application of Wage Increases

(a) The adjustments provided for in this Article (i) will apply to mileage rates of pay for overmiles, and (ii) will not apply to duplicate time payments, including arbitraries and special allowances that are expressed in time, miles or fixed amounts of money.

ARTICLE II - HEALTH AND WELFARE

Part A – Employee Sharing of Plan Costs

Section 1 – Monthly Employee Cost-Sharing Contributions

The employee monthly cost-sharing contribution amount shall be \$228.89 until such time as otherwise mutually agreed by the parties during negotiations commencing when this Agreement becomes amendable pursuant to Article III.

Section 2 – Other Terms

Existing arrangements regarding the method of making employee cost-sharing contributions on a pre-tax basis shall be continued subject to the provisions of the Railway Labor Act.

Part B – Plan Changes

Section 1 – Continuation of Plans

The Railroad Employees National Health and Welfare Plan (“the Plan”), the Railroad Employees National Dental Plan, the Railroad Employees National Early Retirement Major Medical Benefit Plan, the Railroad Employees National Vision Plan, and the Railroad Employees National Health Flexible Spending Account Plan (“FSA”), modified as provided in this Article with respect to employees represented by the organization and their eligible dependents, shall be continued subject to the provisions of the Railway Labor Act.

Section 2 – Plan Design Changes

- (a) The Plans’ Managed Medical Care Program (“MMCP”) shall be modified as follows:
 - (1) The Annual Deductible for In-Network Services for which a fixed-dollar co-payment does not apply shall be \$325 per individual and \$650 per family, respectively, in 2018 and \$350 and \$700, respectively, in 2019 and thereafter.

ARTICLE II - HEALTH AND WELFARE

Part A – Employee Sharing of Plan Costs

Section 1 – Monthly Employee Cost-Sharing Contributions

The employee monthly cost-sharing contribution amount shall be \$228.89 until such time as otherwise mutually agreed by the parties during negotiations commencing when this Agreement becomes amendable pursuant to Article III.

Section 2 – Other Terms

Existing arrangements regarding the method of making employee cost-sharing contributions on a pre-tax basis shall be continued subject to the provisions of the Railway Labor Act.

Part B – Plan Changes

Section 1 – Continuation of Plans

The Railroad Employees National Health and Welfare Plan (“the Plan”), the Railroad Employees National Dental Plan, the Railroad Employees National Early Retirement Major Medical Benefit Plan, the Railroad Employees National Vision Plan, and the Railroad Employees National Health Flexible Spending Account Plan (“FSA”), modified as provided in this Article with respect to employees represented by the organization and their eligible dependents, shall be continued subject to the provisions of the Railway Labor Act.

Section 2 – Plan Design Changes

- (a) The Plans’ Managed Medical Care Program (“MMCP”) shall be modified as follows:
 - (1) The Annual Deductible for In-Network Services for which a fixed-dollar co-payment does not apply shall be \$325 per individual and \$650 per family, respectively, in 2018 and \$350 and \$700, respectively, in 2019 and thereafter.

SIGNED AT WASHINGTON, D.C., THIS 1st DAY OF DECEMBER, 2017.

FOR THE PARTICIPATING
CARRIERS LISTED IN EX-
HIBIT A REPRESENTED
BY THE NATIONAL CAR-
RIERS' CONFERENCE
COMMITTEE:

A. Kenneth Graham

Arthur J. Kelley

Zachery M. Jones

[Signature]

Jack E. Long

Scott H. Henson

FOR THE EMPLOYEES
REPRESENTED BY THE
BROTHERHOOD OF
LOCOMOTIVE ENGINEERS
AND TRAINMEN:

[Signature]

[Signature]

Stephen J. Jones

[Signature]

W. J. [Signature]

M. J. Waller

Exhibit A
BLET

CARRIERS REPRESENTED BY THE NATIONAL CARRIERS' CONFERENCE COMMITTEE IN CONNECTION WITH NOTICES SERVED ON OR AFTER NOVEMBER 1, 2014 BY AND ON BEHALF OF SUCH CARRIERS UPON THE BROTHERHOOD OF LOCOMOTIVE ENGINEERS AND TRAINMEN, AND NOTICES SERVED ON OR AFTER NOVEMBER 1, 2014 BY THE GENERAL CHAIRMEN, OR OTHER RECOGNIZED REPRESENTATIVES OF THE BROTHERHOOD OF LOCOMOTIVE ENGINEERS AND TRAINMEN UPON SUCH CARRIERS.

Subject to indicated footnotes, this authorization is co-extensive with notices filed and with provisions of current schedule agreements applicable to employees represented by the Brotherhood of Locomotive Engineers and Trainmen:

The Belt Railway Company of Chicago

BNSF Railway Company

Consolidated Rail Corporation

CSX Transportation, Inc. - 1

CSX Transportation, Inc. (Single System Agreement)

Delaware & Hudson Railroad Company d.b.a. C.P. - 1

Indiana Harbor Belt Railroad Company

The Kansas City Southern Railway Company

Kansas City Southern Railway

Louisiana and Arkansas Railway

MidSouth Rail Corporation

Gateway Western Railway

SouthRail Corporation

The Texas Mexican Railway Company

Joint Agency

Longview Switching Company

Norfolk Southern Railway Company - 1

The Alabama Great Southern Railroad Company

Central of Georgia Railroad Company

The Cincinnati, New Orleans & Texas Pacific Railway Company

Georgia Southern and Florida Railway Company

Tennessee, Alabama and Georgia Railway Company
Tennessee Railway Company
Northeast Illinois Regional Commuter Railroad Corporation (METRA) - 1
Portland Terminal Railroad Company
Soo Line Railroad Company d.b.a. C.P. - 1
Union Railroad Company - 1
Union Pacific Railroad Company
Winston Salem Southbound Railway Company

* * * * *

Notes:

1 - Health & Welfare only

- - - - -

FOR THE CARRIERS:

A. Kenneth Thacker

**FOR THE BROTHERHOOD OF
LOCOMOTIVE ENGINEERS
AND TRAINMEN:**

Qu R. L.

**December 1, 2017
Washington, D.C.**

MEDIATION AGREEMENT

THIS AGREEMENT, made this 1st day of December, 2017, by and between the participating carriers listed in Exhibit A attached hereto and hereby made a part hereof, and represented by the National Carriers' Conference Committee, and employees of such carriers represented by the Brotherhood of Railroad Signalmen, witnesseth:

IT IS HEREBY AGREED:

ARTICLE I - WAGES

Section 1 - First General Wage Increase

Effective January 1, 2015, all standard rates of pay in effect on December 31, 2014 for employees represented by the BRS were increased by three (3) percent pursuant to Article I, Section 6 of the February 6, 2012 National BRS Agreement. This 3% general wage increase was mutually negotiated to apply as the first-year increase of this five-year Agreement, the term of which runs from January 1, 2015 through December 31, 2019.

Section 2 - Second General Wage Increase

On July 1, 2016, all hourly, daily, weekly, and monthly rates of pay in effect on the preceding day for employees covered by this Agreement shall be increased in the amount of two (2) percent applied so as to give effect to this increase in pay irrespective of the method of payment. The increase provided for in this Section 2 shall be applied as follows:

(a) Hourly Rates -

Add 2 percent to the existing hourly rates of pay.

(b) Daily Rates -

Add 2 percent to the existing daily rates of pay.

(c) Weekly Rates -

Add 2 percent to the existing weekly rates of pay.

(d) Monthly Rates -

Add 2 percent to the existing monthly rates of pay.

(e) Disposition of Fractions -

Rates of pay resulting from application of paragraphs (a) to (d), inclusive, which end in fractions of a cent shall be rounded to the nearest whole cent, fractions less than one-half cent shall be dropped, and fractions of one-half cent or more shall be increased to the nearest full cent.

(f) Application of Wage Increase -

The increase in wages provided for in this Section 2 shall be applied in accordance with the wage or working conditions agreement in effect between each carrier and the labor organization party hereto. Special allowances not included in fixed hourly, daily, weekly or monthly rates of pay for all services rendered, and arbitraries representing duplicate time payments, will not be increased. Overtime hours will be computed in accordance with individual schedules for all overtime hours paid for.

Section 3 - Third General Wage Increase

Effective July 1, 2017, all hourly, daily, weekly and monthly rates of pay in effect on June 30, 2017 for employees covered by this Agreement shall be

increased in the amount of two (2) percent applied so as to give effect to this increase irrespective of the method of payment. The increase provided for in this Section 3 shall be applied in the same manner as provided for in Section 2 hereof.

Section 4 - Fourth General Wage Increase

Effective July 1, 2018 all hourly, daily, weekly and monthly rates of pay in effect on June 30, 2018 for employees covered by this Agreement shall be increased in the amount of two-and-one-half (2.5) percent applied so as to give effect to this increase irrespective of the method of payment. The increase provided for in this Section 4 shall be applied in the same manner as provided for in Section 2 hereof.

Section 5 - Fifth General Wage Increase

Effective July 1, 2019 all hourly, daily, weekly and monthly rates of pay in effect on June 30, 2019 for employees covered by this Agreement shall be increased in the amount of three (3) percent applied so as to give effect to this increase irrespective of the method of payment. The increase provided for in this Section 5 shall be applied in the same manner as provided for in Section 2 hereof.

ARTICLE II - HEALTH AND WELFARE

Part A – Employee Sharing of Plan Costs

Section 1 – Monthly Employee Cost-Sharing Contributions

The employee monthly cost-sharing contribution amount shall be \$228.89 until such time as otherwise mutually agreed by the parties during negotiations commencing when this Agreement becomes amendable pursuant to Article III.

Section 2 – Other Terms

Existing arrangements regarding the method of making employee cost-sharing contributions on a pre-tax basis shall be continued subject to the provisions of the Railway Labor Act.

hereto, or its equivalent, shall include any Prescription Drug classified by the Plan's Pharmacy Benefit Manager for its general book of business as a specialty drug.

ARTICLE III - GENERAL PROVISIONS

Section 1 - Court Approval

This Agreement is subject to approval of the courts with respect to participating carriers in the hands of receivers or trustees.

Section 2 - Effect of this Agreement

(a) The purpose of this Agreement is to settle the disputes growing out of the notices served upon the organization by the carriers listed in Exhibit A on or subsequent to November 1, 2014 (including any notices outstanding as of that date), and the notices served by the organization signatory hereto upon such carriers on or subsequent to November 1, 2014 (including any notices outstanding as of that date).

(b) This Agreement shall be construed as a separate agreement by and on behalf of each of said carriers and their employees represented by the organization signatory hereto, and shall remain in effect through December 31, 2019 and thereafter until changed or modified in accordance with the provisions of the Railway Labor Act, as amended.

(c) No party to this Agreement shall serve or progress, prior to November 1, 2019 (not to become effective before January 1, 2020), any notice or proposal.

(d) This Article will not bar management and the organization on individual railroads from agreeing upon any subject of mutual interest.

SIGNED AT WASHINGTON, D.C., THIS 1st DAY OF DECEMBER, 2017.

**FOR THE PARTICIPATING
CARRIERS LISTED IN**

**FOR THE EMPLOYEES
REPRESENTED BY THE**

EXHIBIT A:

**BROTHERHOOD OF
RAILROAD SIGNALMEN:**

A. Kenneth India

W. Darickett

Chas. J. Kelly

Ray L. ...

Zachary M. Jones

Grand 5064

Scott R. Weaver

EXHIBIT A
(BRS)

CARRIERS REPRESENTED BY THE NATIONAL CARRIERS' CONFERENCE COMMITTEE IN CONNECTION WITH NOTICES SERVED ON OR AFTER NOVEMBER 1, 2014 BY AND ON BEHALF OF SUCH CARRIERS UPON THE BROTHERHOOD OF RAILROAD SIGNALMEN, AND NOTICES SERVED ON OR AFTER NOVEMBER 1, 2014 UPON SUCH CARRIERS BY THE GENERAL CHAIRMEN, OR OTHER RECOGNIZED REPRESENTATIVES OF THE BROTHERHOOD OF RAILROAD SIGNALMEN.

Subject to indicated footnotes, this authorization is co-extensive with notices filed and with provisions of current schedule agreements applicable to employees represented by the Brotherhood of Railroad Signalmen.

Alton and Southern Railway Company
The Belt Railway Company of Chicago
Bessemer and Lake Erie Railroad Company d.b.a. C.N.
BNSF Railway Company
Consolidated Rail Corporation
CSX Transportation, Inc.
 The Baltimore and Ohio Railroad Company (former)
 The Chesapeake and Ohio Railway Company (former)
 including former Pere Marquette and B&OCT
 CSXT North, including former Monon
 Louisville and Nashville Railroad Company (former)
 including C&Ei
 Seaboard Coast Line Railroad Company (former)
 including former AWP, Clinchfield, and RF&P
Delaware & Hudson Railroad Company d.b.a. C.P. - I
Grand Trunk Western Railroad Company d.b.a. C.N.
Idaho & Sedalia Transportation Company, LLC
Illinois Central Railroad Company and Chicago, Central & Pacific Railroad Company d.b.a. C.N.

Indiana Harbor Belt Railroad Company
The Kansas City Southern Railway Company
 Kansas City Southern Railway
 Louisiana and Arkansas Railway
 MidSouth Rail Corporation
 Gateway Western Railway
 SouthRail Corporation
 The Texas Mexican Railway Company
 Joint Agency
Norfolk Southern Railway Company
 The Alabama Great Southern Railroad Company
 Central of Georgia Railroad Company
Northeast Illinois Regional Commuter Railroad Corporation (METRA) - 1
Soo Line Railroad Company d.b.a. C.P. - 1
Terminal Railroad Association of St. Louis
Union Pacific Railroad Company
Wisconsin Central Ltd. d.b.a. C.N.
Wisconsin Central Ltd. as successor to Duluth, Winnipeg & Pacific Railway d.b.a.
C.N.

* * * * *

Notes:

1 - Health & Welfare and Supplemental Sickness only

FOR THE CARRIERS:



**December 1, 2017
Washington, D.C.**

**FOR THE BROTHERHOOD OF
RAILROAD SIGNALMEN:**



MEDIATION AGREEMENT

THIS AGREEMENT, made this 1st day of December, 2017, by and between the participating carriers listed in Exhibit A, attached hereto and made a part hereof, and represented by the National Carriers' Conference Committee, and the employees (other than Yardmasters) of such carriers shown thereon and represented by the International Association of Sheet Metal, Air, Rail and Transportation Workers, Transportation Division ("SMART-TD"), witnesseth:

IT IS HEREBY AGREED:

ARTICLE I - WAGES

Section 1 – First General Wage Increase

Effective January 1, 2015, all standard rates of pay in effect on December 31, 2014 for employees represented by SMART-TD were increased by three (3) percent pursuant to Article I, Section 6 of the September 16, 2011 National SMART-TD Agreement, Document "A". This 3% general wage increase was mutually negotiated to apply as the first-year increase of this five-year Agreement, the term of which runs from January 1, 2015 through December 31, 2019.

Section 2 – Second General Wage Increase (for other than Dining Car Stewards)

(a) Effective July 1, 2016, all standard basic daily rates of pay for employees represented by SMART-TD in effect on June 30, 2016 shall be increased by two (2) percent.

(b) In computing the increase for enginemen under paragraph (a) above, two (2) percent shall be applied to the standard basic daily rates of pay applicable

in the following weight-on-drivers brackets, and the amounts so produced shall be added to each standard basic daily rate of pay:

Passenger	- 600,000 and less than 650,000 pounds
Freight	- 950,000 and less than 1,000,000 pounds (through freight rates)
Yard Engineers	- Less than 500,000 pounds
Yard Firemen	- Less than 500,000 pounds

(separate computation covering five- day
rates and other than five-day rates)

Section 3 - Third General Wage Increase

(for other than Dining Car
Stewards)

Effective July 1, 2017, all standard basic daily rates of pay in effect on June 30, 2017 for employees represented by SMART-TD shall be increased by two (2) percent, computed and applied in the same manner prescribed in Section 2(b) above.

Section 4 - Fourth General Wage Increase

(for other than Dining Car
Stewards)

Effective July 1, 2018 all standard basic daily rates of pay in effect on June 30, 2018 for employees represented by SMART-TD shall be increased by two-and-one-half (2.5) percent, computed and applied in the same manner prescribed in Section 2(b) above.

Section 5 – Fifth General Wage Increase

(for other than Dining Car
Stewards)

Effective July 1, 2019, all standard basic daily rates of pay in effect on June 30, 2019 for employees represented by SMART-TD shall be increased by three (3) percent, computed and applied in the same manner prescribed in Section 2(b) above.

National SMART-TD
(old UTU)

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(b) Effective July 1, 2016, all basic monthly rates of pay in effect on June 30, 2016 for dining car stewards represented by SMART-TD shall be increased by two (2) percent.

(c) Effective July 1, 2017 all basic monthly rates of pay in effect on June 30, 2017 for dining car stewards represented by SMART-TD shall be increased by two (2) percent.

(d) Effective July 1, 2018, all basic monthly rates of pay in effect on June 30, 2018 for dining car stewards represented by SMART-TD shall be increased by two-and-one-half (2.5) percent.

(e) Effective July 1, 2019, all basic monthly rates of pay in effect on June 30, 2019 for dining car stewards represented by SMART-TD shall be increased by three (3) percent.

ARTICLE II - HEALTH AND WELFARE

Part A – Employee Sharing of Plan Costs

Section 1 – Monthly Employee Cost-Sharing Contributions

The employee monthly cost-sharing contribution amount shall be \$228.89 until such time as otherwise mutually agreed by the parties during negotiations commencing when this Agreement becomes amendable pursuant to Article III.

Section 2 – Other Terms

Existing arrangements regarding the method of making employee cost-sharing contributions on a pre-tax basis shall be continued subject to the provisions of the Railway Labor Act.

National SMART-TD
(old UTU)

-14-

(c) No party to this Agreement shall serve or progress, prior to November 1, 2019 (not to become effective before January 1, 2020), any notice or proposal.

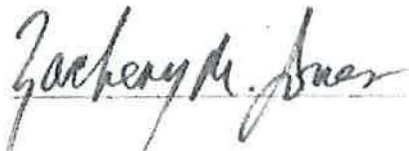
(d) This Article will not bar management and the organization on individual railroads from agreeing upon any subject of mutual interest.

SIGNED AT WASHINGTON, D.C. THIS 1st DAY OF DECEMBER, 2017.

**FOR THE PARTICIPATING CARRIERS
LISTED IN EXHIBIT A REPRESENTED
BY THE NATIONAL CARRIERS'
CONFERENCE COMMITTEE:**









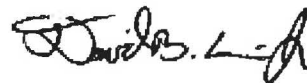
**FOR THE EMPLOYEES
REPRESENTED BY
SMART, TRANSPORTA-
TION DIVISION:**



John Previsich, President
SMART TD



John E. Lesniewski, Vice
President



David Wier, Vice President



Troy L. Johnson, Vice
President

National SMART-TD
(old UTV)

EXHIBIT A
SMART-TD

CARRIERS REPRESENTED BY THE NATIONAL CARRIERS' CONFERENCE COMMITTEE IN CONNECTION WITH NOTICES SERVED ON OR AFTER NOVEMBER 1, 2014 BY AND ON BEHALF OF SUCH CARRIERS UPON SMART, TRANSPORTATION DIVISION, AND NOTICES SERVED ON OR AFTER NOVEMBER 1, 2014 BY THE GENERAL CHAIRMEN, OR OTHER RECOGNIZED REPRESENTATIVES OF SMART, TRANSPORTATION DIVISION, UPON SUCH CARRIERS.

Subject to indicated footnotes, this authorization is co-extensive with notices filed and with provisions of current schedule agreements applicable to employees represented by the United Transportation Union:

Alameda Belt Line
Alton & Southern Railway Company
The Belt Railway Company of Chicago
BNSF Railway Company
Central California Traction Company
Consolidated Rail Corporation
CSX Transportation, Inc.
 The Baltimore and Ohio Railroad Company (former)
 The Baltimore and Ohio Chicago Terminal Railroad Company
 Consolidated Southern Region Agreement
Delaware & Hudson Railroad Company d.b.a. C.P. - 1
Indiana Harbor Belt Railroad Company
The Kansas City Southern Railway Company
 Kansas City Southern Railway
 Louisiana and Arkansas Railway
 MidSouth Rail Corporation
 Gateway Western Railway
 SouthRail Corporation

National SMART-TD
(old UTU)

Tenn. Rail Corporation
The Texas Mexican Railway Company
Joint Agency
Longview Switching Company
Los Angeles Junction Railway Company
New Orleans Public Belt Railroad
Norfolk & Portsmouth Belt Line Railroad Company
Norfolk Southern Railway Company
The Alabama Great Southern Railroad Company
Central of Georgia Railroad Company
The Cincinnati, New Orleans & Texas Pacific Railway Co.
Georgia Southern and Florida Railway Company
Tennessee, Alabama and Georgia Railway Company
Tennessee Railway Company
Northeast Illinois Regional Commuter Railroad Corporation (METRA) - 1
Northern Indiana Commuter Transportation District - 1
Portland Terminal Railroad Company
Port Terminal Railroad Association
Soo Line Railroad Company d.b.a. C.P. - 1
Terminal Railroad Association of St. Louis - 1
Texas City Terminal Railway Company
Union Pacific Railroad Company
Wichita Terminal Association
Winston-Salem Southbound Railway Company

* * * * *

Notes:

1 - Health & Welfare only

FOR THE CARRIERS:

A. K. Shukla

FOR SMART TD:

Joe Smith

**December 1, 2017
Washington, D.C.**

National SMART-TD yardmasters
(formerly UTU-YMD)

Case No. A-13828
Document "B"
(Yardmasters)

MEDIATION AGREEMENT

THIS AGREEMENT, made this 1st day of December, 2017, by and between the participating carriers listed in Exhibit A, attached hereto and made a part hereof, and represented by the National Carriers' Conference Committee, and the employees of such carriers shown thereon and represented by the Yardmasters Department, International Association of Sheet Metal, Air, Rail and Transportation Workers, Transportation Division, witnesseth:

IT IS HEREBY AGREED:

ARTICLE I - WAGES

Section 1 - First General Wage Increase

Effective January 1, 2015, all standard rates of pay in effect on December 31, 2014 for employees represented by SMART-TD were increased by three (3) percent pursuant to Article I, Section 6 of the September 16, 2011 National SMART-TD Agreement, Document "B". This 3% general wage increase was mutually negotiated to apply as the first-year increase of this five-year Agreement, the term of which runs from January 1, 2015 through December 31, 2019.

Section 2 - Second General Wage Increase

Effective July 1, 2016, all standard basic daily rates of pay for employees covered by this Agreement in effect on June 30, 2016 shall be increased by two (2) percent.

Section 3 - Third General Wage Increase

Effective July 1, 2017, all standard basic daily rates of pay in effect on June 30, 2017 for employees covered by this Agreement shall be increased by two (2) percent, computed and applied in the same manner prescribed in Section 2 above.

Section 4 - Fourth General Wage Increase

Effective July 1, 2018 all standard basic daily rates of pay in effect on June 30, 2018 for employees covered by this Agreement shall be increased by two-and-one-half (2.5) percent, computed and applied in the same manner prescribed in Section 2 above.

Section 5 - Fifth General Wage Increase

Effective July 1, 2019, all standard basic daily rates of pay in effect on June 30, 2019 for employees covered by this Agreement shall be increased by three (3) percent, computed and applied in the same manner prescribed in Section 2 above.

Section 6 - Application of Wage Increases

Special allowances not included in fixed daily, weekly or monthly rates of pay for all services rendered, and arbitraries representing duplicate time payments will not be increased.

ARTICLE II - HEALTH AND WELFARE

Part A – Employee Sharing of Plan Costs

Section 1 – Monthly Employee Cost-Sharing Contributions

The employee monthly cost-sharing contribution amount shall be \$228.89 until such time as otherwise mutually agreed by the parties during negotiations commencing when this Agreement becomes amendable pursuant to Article IV.

Section 2 – Other Terms

Existing arrangements regarding the method of making employee cost-sharing contributions on a pre-tax basis shall be continued subject to the provisions of the Railway Labor Act.

ARTICLE IV - GENERAL PROVISIONS

Section 1 - Court Approval

This Agreement is subject to approval of the courts with respect to participating carriers in the hands of receivers or trustees.

Section 2 - Effect of this Agreement

(a) The purpose of this Agreement is to settle the disputes growing out of the notices served upon the organization by the carriers listed in Exhibit A on or subsequent to November 1, 2014 (including any notices outstanding as of that date), and the notices served by the organization signatory hereto upon such carriers on or subsequent to November 1, 2014 (including any notices outstanding as of that date).

(b) This Agreement shall be construed as a separate agreement by and on behalf of each of said carriers and their employees represented by the organization signatory hereto, and shall remain in effect through December 31, 2019 and thereafter until changed or modified in accordance with the provisions of the Railway Labor Act, as amended.

(c) No party to this Agreement shall serve or progress, prior to November 1, 2019 (not to become effective before January 1, 2020), any notice or proposal.

(d) This Article will not bar management and the organization on individual railroads from agreeing upon any subject of mutual interest.

SIGNED AT WASHINGTON, D.C. THIS 1ST DAY OF DECEMBER, 2017.

**FOR THE PARTICIPATING
CARRIERS LISTED IN**

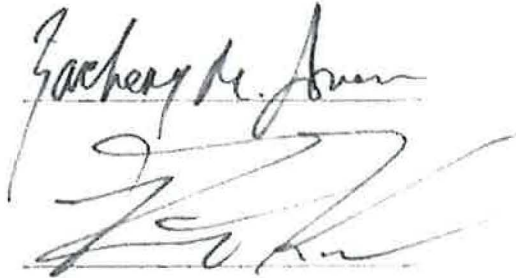
**FOR THE EMPLOYEES
REPRESENTED BY THE**

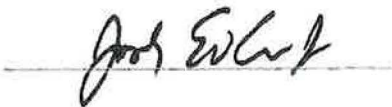
-11-

**EXHIBIT A REPRESENTED
BY THE NATIONAL CARRIERS'
CONFERENCE COMMITTEE:**











**YARDMASTERS DEPT.,
SMART, TRANSPORTA-
TION DIVISION:**



John Previsich, President
SMART TD



John E. Lesniewski, Vice
President



David Wier, Vice President



Troy L. Johnson, Vice
President



John R. England, Vice
President



Doyle K. Turner, Vice
President



Jeremy Ferguson,
Vice President



Steven C. Mavity,
General Chair CSX



Daniel L. Young,
General Chair, BNSF



Brent Leonard,
General Chair, UP



Mark Cook,
General Chair NS



Kevin Brodar,
General Counsel



Jeff Weisbarth,
Executive Assistant
to the President

National SMART-ID Yardmaster



Jeff Brandow,
Executive Assistant
to the President

Exhibit A
SMART TD - YMD

CARRIERS REPRESENTED BY THE NATIONAL CARRIERS' CONFERENCE COMMITTEE IN CONNECTION WITH NOTICES SERVED ON OR AFTER NOVEMBER 1, 2009 BY AND ON BEHALF OF SUCH CARRIERS UPON SMART, TRANSPORTATION DIVISION, YARDMASTERS DEPARTMENT, AND NOTICES SERVED ON OR AFTER NOVEMBER 1, 2009 BY THE GENERAL CHAIRMEN, OR OTHER RECOGNIZED REPRESENTATIVES OF THE YARDMASTERS DEPARTMENT – SMART TD, UPON SUCH CARRIERS.

Subject to indicated footnotes, this authorization is co-extensive with notices filed and with provisions of current schedule agreements applicable to employees represented by the Yardmasters Department – SMART TD:

Alton & Southern Railway Company
The Belt Railway Company of Chicago
BNSF Railway Company
Consolidated Rail Corporation
Consolidated Rail Corporation (Mechanical Foremen) - 1
CSX Transportation, Inc.
Delaware & Hudson Railroad Company d.b.a. C.P. - 2
Indiana Harbor Belt Railroad Company
The Kansas City Southern Railway Company
 Kansas City Southern Railway
 Joint Agency
Longview Switching Company
New Orleans Public Belt Railroad
Norfolk & Portsmouth Belt Line Railroad Company
Norfolk Southern Railway Company

The Alabama Great Southern Railroad Company
Central of Georgia Railroad Company
The Cincinnati, New Orleans & Texas Pacific Railway Co.
Georgia Southern and Florida Railway Company
Tennessee, Alabama and Georgia Railway Company
Tennessee Railway Company
Northeast Illinois Regional Commuter Railroad Corporation (METRA) – 2
Portland Terminal Railroad Company
Port Terminal Railroad Association
Soo Line Railroad Company d.b.a. C.P. - 2
Terminal Railroad Association of St. Louis
Texas City Terminal Railway Company

* * * * *

Notes:

- 1 - Wages & Rules and Health & Welfare only
- 2 - Health & Welfare and Supplemental Sickness only

FOR THE CARRIERS:



**FOR THE YARDMASTERS
DEPARTMENT, SMART TD:**



**December 1, 2017
Washington, D.C.**