# COMMUTER RAIL SYSTEM ON-TIME PERFORMANCE REPORT May 2015



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This report presents an analysis of the May 2015 train delays as reported for Metra's eleven commuter rail lines. On-time is defined, for this analysis, as those regularly scheduled trains arriving at their last station stop less than six minutes behind schedule. Trains that are six minutes or more behind schedule, including annulled trains (trains that do not complete their scheduled runs), are regarded as late. "Extra" trains (trains added to handle special events but not shown in the regularly published timetables) are excluded from on-time performance calculations unless shown in special-event schedules that include all intermediate station stop times and are distributed publicly via Metra's website or on paper flyers. Cancelled (not annulled) trains and non-revenue trains are also excluded from on-time performance calculations.

# **On-Time Performance Tables**

Table 1 presents the number of train delays by rail line and service period. During May 2015, Metra operated 16,521 scheduled trains, including scheduled "extras", if any. 462 of these trains were delayed (late or annulled), representing an on-time performance rate of 97.2%. Table 2 lists on-time percentages by line for each month and year since 2010.

Table 3 lists each train that was on time for less than 85% of its weekday runs in May 2015, in order of line, train, and dates delayed. The codes in the 'Delay Code' column of Table 3 are defined in Table 4 and shown sorted by delay-cause category and carrier designation in Table 5. Effective January 1, 2012, and January 1, 2014, Metra is using an expanded set of delay codes, to provide more detail about the cause of and responsibility for each train delay.

Table 6.a shows the frequency of train delays by delay-cause control and by line during May 2015. Of the 462 delays systemwide in May 2015, all but 236 (51%) were beyond Metra's control. Table 6.b shows the average frequencies over the previous three Mays, and Table 6.c shows the differences between Table 6.a and Table 6.b., illustrating that in May 2015, 145 fewer delays than the average over the previous three Mays were controllable. Table 6.d shows the delay-cause control frequencies since the beginning of the year. Of the 3,529 delays in 2015, all but 1,303 (37%) were beyond Metra's control.

Table 7 provides a daily listing of the number of delays by line and branch for May 2015.

Table 8.a shows the frequency of train delays by delay-cause category and by line during May 2015. Table 8.b shows the average frequencies over the previous five Mays, and Table 8.c shows the differences between Table 8.a and Table 8.b. There were 462 delays systemwide in May 2015, 318 less than the average over the previous five Mays. Table 9.a shows delays from the beginning of the year through May 2015. Table 9.b shows the average frequencies from the beginning of the year through May of each of the previous five years, and Table 9.c shows the differences between Table 9.a and Table 9.b. Tables 10.a and 10.b display the systemwide frequency of train delays by cause and by month, for 2015 and 2014 respectively, and Table 10.c shows the difference between the two. From January through May of 2015, a total of 3,529 trains were delayed, compared to 6,577 trains delayed in the same five months of 2014.

As of January 2015, Tables 8 through 10 are enhanced to show the total numbers of primary and secondary train delays for freight interference, signal/switch, non-locomotive, and locomotive delays. Also, delays by cause are now separated into 'Metra/PSA' and 'Foreign' designations, where applicable. 'Metra/PSA' refers to delays that may be directly or indirectly attributed to Metra or Metra Purchase of Service Agreement partners (BNSF and UP) in commuter rail operation. 'Foreign' refers to delays that

may be directly or indirectly attributed to other carriers, including freight carriers, Amtrak, and NICTD, that affect Metra trains. 'Foreign' also includes delays attributable to BNSF and Union Pacific freight operations. See Table 5 for a detailed breakdown of delay codes by cause category and carrier designation.

Table 11 shows, by line and month, all train delays caused by freight operations over the past 24 months. In May 2015 freight operations delayed 59 trains systemwide, compared to 177 a year earlier. Tables 12.a and 12.b display the frequency of lift-deployment train delays by line and month, for 2015 and 2014 respectively. A total of 9 trains were delayed by lift deployment in May 2015.

A review of May 2015 late trains by duration of delay is shown in Table 13. The range with the greatest number of delays was, as usual, six-to-ten minutes, accounting for 52.6% of all late trains. Table 14 shows that the average length of delay was 15.2 minutes in May 2015. It should be noted that these averages relate only to reportable delays (i.e., trains late by six minutes or more).

# **Changes in On-Time Performance Reporting Calculations** (effective with the May 2011 On-Time Performance Report)

### "Extra" Trains

"Extra" trains (trains added to handle special events but not shown in the regularly published schedules) are excluded from on-time performance calculations, except for those "extra" trains whose special-event schedules include all intermediate station stop times and are distributed publicly via Metra's website or on paper flyers. Prior to May 2011, all "extra" trains were included in the count of all trains for the purpose of calculating on-time performance and were always reported as on-time.

Intermediate station departure times and final station arrival times for some "extra" trains are either unknown (departures of some "extra" trains are held until after the completion of the respective special event) or not published. On-time performance for these two types of "extra" trains cannot be calculated, as arrival times are not known ahead of time; these trains are therefore excluded from on-time performance calculations. However, on-time performance can be calculated for "extra" trains that have full published schedules.

## Temporary Schedules and Notices, for Construction and Special Events

Planned construction projects or special events can adversely affect on-time performance. Metra occasionally publishes full temporary schedules, which supersede the standard published schedules, to inform riders of possible delays or modifications to regular service. Metra also may publish informational notices to accompany temporary schedules. On-time performance is calculated using the temporary schedules and any accompanying notices.

(Prior to May 2011, some trains affected by planned construction work arrived at their last station stops six minutes or more late, but were counted as on-time because a construction time allowance was deducted from the actual delay time. This allowance, typically five or ten minutes (but occasionally more) depending on the nature of the scheduled work, was assigned in advance to all off-peak and reverse-peak trains that might be affected by a particular project, but never to peak period/peak direction trains. For such trains, the assigned construction allowance was added onto the scheduled arrival time at the destination station for the purpose of calculating the total minutes of delay.)

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TABLE 1: SCHEDULED AND DELAYED TRAINS, AND ON-TIME PERFORMANCE BY SERVICE PERIOD AND LINE May 2015

				W	eekdays	S						Weel	kends				Total	
	]	Peak*		Off	f-Peak*	*		Total		Sa	turday	S	Sunday	s & Ho	lidays			
	Trains Scheduled	Trains Late	Percent On-Time															
BNSF	1,080	30	97.2%	803	34	95.8%	1,883	64	96.6%	140	3	97.9%	108	6	94.4%	2,131	73	96.6%
Elec -ML	897	9	99.0%	683	25	96.3%	1,580	34	97.8%	230	6	97.4%	120	2	98.3%	1,930	42	97.8%
-BI	280	5	98.2%	460	5	98.9%	740	10	98.6%	150	1	99.3%				890	11	98.8%
-SC	<u>340</u>	<u>2</u>	99.4%	<u>740</u>	<u>12</u>	98.4%	1,080	<u>14</u>	98.7%	<u>240</u>	<u>4</u>	98.3%	<u>120</u>	<u>0</u>	100.0%	<u>1,440</u>	<u>18</u>	98.8%
Subtotal	1,517	16	98.9%	1,883	42	97.8%	3,400	58	98.3%	620	11	98.2%	240	2	99.2%	4,260	71	98.3%
Heritage	120	17	85.8%				120	17	85.8%							120	17	85.8%
Milw -N	499	19	96.2%	701	28	96.0%	1,200	47	96.1%	120	13	89.2%	120	6	95.0%	1,440	66	95.4%
- <b>W</b>	<u>539</u>	<u>14</u>	97.4%	<u>621</u>	<u>13</u>	97.9%	1,160	<u>27</u>	97.7%	<u>120</u>	<u>7</u>	94.2%	<u>108</u>	<u>5</u>	95.4%	1,388	<u>39</u>	97.2%
Subtotal	1,038	33	96.8%	1,322	41	96.9%	2,360	74	96.9%	240	20	91.7%	228	11	95.2%	2,828	105	96.3%
NCS	220	12	94.5%	220	7	96.8%	440	19	95.7%							440	19	95.7%
RI	720	8	98.9%	660	24	96.4%	1,380	32	97.7%	100	2	98.0%	98	1	99.0%	1,578	35	97.8%
sws	220	5	97.7%	380	15	96.1%	600	20	96.7%	30	3	90.0%				630	23	96.3%
UP -N	598	14	97.7%	802	12	98.5%	1,400	26	98.1%	130	11	91.5%	108	0	100.0%	1,638	37	97.7%
-NW	656	15	97.7%	642	9	98.6%	1,298	24	98.2%	120	16	86.7%	90	7	92.2%	1,508	47	96.9%
-W	<u>539</u>	<u>15</u>	97.2%	<u>641</u>	<u>14</u>	97.8%	<u>1,180</u>	<u>29</u>	97.5%	<u>100</u>	<u>1</u>	99.0%	<u>108</u>	<u>5</u>	95.4%	<u>1,388</u>	<u>35</u>	97.5%
Subtotal	1,793	44	97.5%	2,085	35	98.3%	3,878	79	98.0%	350	28	92.0%	306	12	96.1%	4,534	119	97.4%
SYSTEM	6,708	165	97.5%	7,353	198	97.3%	14,061	363	97.4%	1,480	67	95.5%	980	32	96.7%	16,521	462	97.2%

<sup>\*</sup>Includes peak direction trains operating during weekday peak periods. \*\*Includes all other weekday trains.

Delays data for most recent month is final (06/19/15) version from TOPS.

TABLE 2: ON-TIME PERFORMANCE BY LINE/BRANCH

													JAN-	
LINE YEAR	JAN	<b>FEB</b>	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MAY	AVG
BNSF 2010	97.8	97.4	96.4	95.7	95.2	89.0	94.7	94.6	96.7	94.8	94.7	96.2	96.5%	95.2%
2011	96.2	89.6	97.4	96.9	93.0	93.0	83.3	92.3	90.4	92.8	94.0	95.4	94.8%	92.9%
2012	94.4	97.3	95.2	98.4	97.2	91.8	95.0	94.2	98.0	96.9	95.0	98.5	96.5%	96.0%
2013	95.8	93.9	94.6	93.3	96.0	88.5	95.2	97.1	97.2	94.0	95.8	92.2	94.7%	94.5%
2014	78.6	84.6	95.6	92.0	82.2	82.0	94.1	91.4	94.1	92.2	95.2	94.1	86.6%	89.7%
2015	90.9	90.1	96.8	97.5	96.6	00.0	02.5	02.0	05.2	0.1.1	0.1.0	05.2	94.4%	94.4%
2010-2014 average	92.5	92.6	95.8	95.3	92.8	88.9	92.5	93.9	95.3	94.1	94.9	95.3	93.8%	93.7%
Electric 2010	97.7	98.1	98.4	97.9	98.3	95.5	97.6	98.0	98.0	98.2	97.8	97.5	98.1%	97.8%
2010	98.6	95.1	98.1	97.7	97.7	95.1	94.6	96.6	97.0	94.4	97.8	98.7	97.5%	96.8%
2011	93.7	98.4	97.9	98.7	98.0	97.0	97.3	97.7	97.5	96.6	97.1	98.2	97.3%	97.3%
2012	98.1	99.0	98.5	98.0	98.0	98.3	92.4	96.4	97.2	97.3	96.9	97.0	98.3%	97.2%
2014	93.7	95.3	97.7	98.8	98.3	97.4	96.7	98.1	98.7	98.4	98.6	98.7	96.8%	97.5%
2015	96.3	95.4	98.4	98.4	98.3	<i>,</i> , , ,	, , , ,	70.1	70.7	70.1	70.0	70.7	97.4%	97.4%
2010-2014 average		97.2	98.1	98.2	98.1	96.6	95.7	97.4	97.7	97.0	97.5	98.0	97.6%	97.3%
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Heritage 2010	92.5	93.3	89.1	91.7	85.0	83.3	87.3	89.4	84.1	90.5	92.9	84.1	90.3%	88.5%
2011	92.1	77.2	94.2	96.0	98.4	89.4	73.3	92.0	84.1	78.6	80.8	75.4	91.9%	86.2%
2012	95.2	99.2	94.7	98.4	97.7	92.1	91.3	95.7	98.2	94.9	92.9	96.7	97.0%	95.6%
2013	97.0	99.2	94.4	97.7	94.7	92.5	97.7	99.2	97.5	96.4	98.3	92.1	96.6%	96.4%
2014	79.5	75.8	88.1	93.2	92.1	94.4	94.7	93.7	92.1	97.8	96.5	98.5	85.8%	91.4%
2015	92.1	90.0	96.2	88.6	85.8								90.6%	90.6%
2010-2014 average	91.2	89.2	92.1	95.4	93.7	90.3	89.2	94.0	91.0	91.9	92.1	89.3	92.4%	91.6%
M:1 N 2010	06.1	06.4	04.2	04.5	00.4	01.6	93.5	93.7	00.4	02.1	04.0	06.6	02.00/	04.20/
Milw - N 2010 2011	96.1 92.9	96.4 85.3	94.2 95.7	94.5 95.5	88.4 89.2	91.6 84.4	93.3 78.3	93.7 87.6	98.4 92.3	93.1 88.1	94.8 91.9	96.6 93.9	93.9% 91.9%	94.3% 89.6%
2011	95.1	96.4	94.0	95.3	93.5	93.2	84.8	92.9	94.3	94.9	95.4	95.5	94.8%	93.8%
2012	95.5	92.4	94.1	95.7	95.3	89.6	92.8	93.6	94.4	93.3	95.7	87.5	94.6%	93.3%
2013	73.1	81.9	89.5	97.9	95.1	91.1	96.0	95.2	95.5	96.2	95.4	93.5	87.5%	91.7%
2015	91.8	87.9	93.5	95.1	95.4	71.1	70.0	73.2	75.5	70.2	73.4	73.3	92.8%	92.8%
2010-2014 average		90.5	93.5	95.8	92.3	90.0	89.2	92.6	95.0	93.2	94.6	93.4	92.6%	92.6%
	1											l		ı
Milw - W 2010	96.0	95.9	97.3	97.9	95.7	93.9	95.6	96.3	97.4	94.8	95.1	95.9	96.6%	96.0%
2011	96.0	87.2	97.4	95.2	95.1	88.0	84.4	92.5	95.6	98.0	89.1	96.5	94.3%	93.0%
2012	94.4	95.1	95.3	97.5	97.1	95.6	93.7	94.1	89.3	93.9	94.6	95.5	95.9%	94.7%
2013	96.6	91.3	96.3	95.8	96.2	90.9	93.2	93.2	92.6	96.5	93.9	93.7	95.3%	94.2%
2014	84.8	88.4	91.4	97.6	95.9	92.2	94.0	93.5	96.7	95.5	97.7	94.6	91.7%	
2015	93.6	93.0	94.8	97.7	97.2	00.1	02.2	02.0	0.4.4	05.7	0.1.0	05.0	95.3%	
2010-2014 average	93.5	91.6	95.6	96.8	96.0	92.1	92.2	93.9	94.4	95.7	94.0	95.2	94.8%	94.3%
NCS 2010	96.4	94.5	92.3	91.1	96.8	90.1	90.9	94.0	95.9	92.6	93.9	90.3	94.1%	93.2%
2011	95.5	88.3	93.5	90.9	92.9	88.8	87.3	92.1	93.1	93.5	83.7	92.4	92.3%	
2011	94.8	94.4	94.4	85.1	95.2	94.8	82.5	91.9	95.7	93.9	92.0	94.8	92.8%	92.4%
2012	95.0	87.5	93.7	90.9	94.0	92.7	93.6	95.0	92.5	93.1	90.0	87.4	92.3%	92.2%
2014	76.0	81.1	88.5	96.3	88.5	89.2	94.0	88.5	95.2	90.9	97.8	91.9	86.2%	89.9%
2015	93.9	82.5	92.6	94.8	95.7								92.0%	92.0%
2010-2014 average		89.2	92.5	90.9	93.5	91.1	89.8	92.3	94.5	92.8	91.4	91.3	91.6%	91.7%

TABLE 2 (continued): ON-TIME PERFORMANCE BY LINE/BRANCH

														JAN-	
LINE YE	EAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MAY	AVG
	•														
	2010	95.4	96.7	97.6	97.1	97.4	94.3	96.8	96.6	95.7	96.6	96.4	95.5	96.9%	96.3%
	2011	97.8	89.5	97.7	96.0	95.6	88.8	83.4	94.0	94.8	96.9	96.6	96.5	95.5%	94.0%
	2012	94.3	96.8	94.8	96.1	95.8	94.1	92.9	93.7	96.8	95.6	97.1	96.4	95.6%	95.3%
	2013	96.5	98.1	97.9	94.0	95.5	91.5	93.6	95.5	98.3	96.5	91.7	94.0	96.4%	95.3%
	2014	82.5	83.4	93.4	95.3	95.7	92.5	95.1	97.2	96.6	97.3	97.9	98.6	90.1%	93.8%
	2015	97.4	95.3	98.9	98.7	97.8								97.7%	97.7%
2010-2014 ave	erage	93.2	93.0	96.3	95.7	96.0	92.2	92.4	95.4	96.4	96.6	95.9	96.2	94.9%	95.0%
SWS 2	2010	94.6	93.4	96.9	97.2	94.6	89.6	90.5	94.4	96.6	96.2	94.3	91.4	95.4%	94.2%
	2011	95.1	89.7	96.2	95.3	94.0	85.1	88.9	90.3	91.3	92.4	92.8	94.1	94.2%	92.1%
	2012	94.2	96.6	94.8	95.3	95.8	93.2	95.3	94.5	93.8	94.3	93.7	96.3	95.3%	94.8%
	2013	94.7	97.1	97.3	97.7	95.0	91.0	98.0	96.8	97.1	98.2	93.2	91.1	96.3%	95.6%
	2014	83.0	92.0	93.5	94.9	93.2	92.8	93.9	95.2	94.2	92.0	90.2	96.2	91.3%	92.6%
	2015	94.7	89.7	95.6	96.1	96.3								94.5%	94.5%
2010-2014 ave	erage	92.3	93.8	95.8	96.1	94.5	90.3	93.4	94.2	94.6	94.6	92.9	93.8	94.5%	93.9%
TID N	2010	02.0	060	06.5	07.2	012	01.6	04.6	02.5	04.5	07.5	04.7	06.0	05.00/1	05.00/
	2010	93.9	96.8	96.5	97.2	94.3	91.6	94.6	92.5	94.5	97.5	94.7	96.2	95.8%	95.0%
	2011	96.4	86.7	94.9	95.5	95.8	91.5	85.1	90.6	91.8	91.6	94.2	96.5	94.0%	92.6%
	2012	94.6	98.4	97.9	98.1	95.1	95.1	95.9 96.0	95.1 94.9	96.3	97.3	96.6	95.8	96.8%	96.4%
	2013	98.3	97.3	97.9	96.6	96.7	93.0			97.0	96.5	96.9	98.0	97.3%	96.6%
	2014 2015	91.2 98.6	92.1 95.6	97.4 98.3	97.8 97.1	97.4 97.7	97.2	97.6	98.1	97.6	97.4	97.8	98.3	95.2% 97.5%	96.7% 97.5%
2010-2014 ave		94.9	93.0	96.9	97.1	95.8	93.6	93.9	94.2	95.4	96.1	96.0	97.0	95.8%	97.3%
2010-2014 ave	erage	94.9	94.4	90.9	97.0	93.0	93.0	93.9	94.2	93.4	90.1	90.0	97.0	93.670	93.4%
UP - NW 2	2010	96.7	97.2	97.3	97.7	96.1	96.7	96.1	94.9	97.6	96.4	95.4	96.8	97.0%	96.6%
	2011	97.0	89.4	97.9	97.3	94.6	93.4	91.2	93.3	95.1	97.6	95.8	95.0	95.4%	94.9%
	2012	95.9	98.6	96.4	98.9	95.9	96.0	94.8	96.7	97.8	94.2	94.6	96.6	97.1%	96.3%
	2013	96.3	97.7	96.0	95.1	93.3	89.2	93.9	93.7	96.3	94.6	94.6	94.2	95.6%	94.6%
	2014	86.6	91.1	96.3	98.6	95.6	95.2	94.7	97.4	98.3	95.0	97.1	96.2	93.7%	95.2%
	2015	96.0	91.6	97.6	96.3	96.9								95.8%	95.8%
2010-2014 ave	erage	94.4	94.8	96.8	97.5	95.1	94.1	94.2	95.2	97.0	95.5	95.5	95.8	95.8%	95.5%
UP - W 2	2010	96.6	96.7	97.9	95.9	94.6	91.0	90.1	94.1	95.2	95.9	94.8	91.9	96.4%	94.5%
	2011	93.5	87.3	93.8	94.5	93.3	89.0	85.9	89.3	90.8	91.6	92.0	89.4	92.6%	90.9%
	2012	93.1	97.1	95.2	95.5	95.6	92.4	93.8	94.3	97.2	97.2	96.0	96.4	95.3%	95.3%
	2013	96.5	96.2	96.9	94.4	93.7	89.2	95.0	93.0	96.6	96.6	94.0	91.5	95.5%	94.5%
	2014	85.9	90.9	94.4	96.7	96.4	94.8	96.4	94.3	96.7	94.6	95.9	96.2	92.9%	
	2015	93.9	91.1	96.1	96.3	97.5								95.0%	
2010-2014 ave		93.1	93.7	95.6	95.4	94.7	91.3	92.3	93.0	95.3	95.2	94.5	93.1	94.5%	93.9%
OX/ODER #	1010	06.5	060	07.0	067	05.5	02.0	05.0	05.4	060	06.2	05.7	05.7	06.50	05.001
	2010	96.5	96.9	97.0	96.7	95.5	92.9	95.0	95.4	96.8	96.2	95.7	95.7	96.5%	95.9%
	2011	96.4	89.8	96.8	96.2	94.8	91.1	87.3	92.7	93.8	93.7	94.0	95.6	94.9%	93.6%
	2012	94.3	97.4	96.1	97.2	96.3	94.7	94.0	95.2	96.2	95.9	95.8	96.9	96.3%	95.8%
	2013	96.8	96.1	96.7	95.7	95.9	92.4	94.0	95.2	96.4	95.9	95.1	93.8	96.3%	
	2014 2015	85.6 94.9	89.3 92.5	94.9 97.0	96.8 97.2	94.5 97.2	93.1	95.6	95.7	96.8	95.9	96.9	96.5	92.2% 95.8%	94.3% 95.8%
2010-2014 ave		94.9	94.0	96.3	96.5	97.2	92.8	93.2	94.9	96.0	95.5	95.5	95.7	95.8%	95.8%
2010-2014 ave	age	73.7	74.U	70.3	70.3	73.4	92.0	73.2	74.7	<b>70.U</b>	73.3	73.3	73.1	73.4%	22.0%

Delays data for most recent month is final (06/19/15) version from TOPS.

P:\ONTIME\report\[Delays&TrainsByServPeriod.xls]OTPbyLine&Month 6/19/2015

<sup>&#</sup>x27;2010-2014 average' calculated by summing the delays over the five years, summing the trains run over the five years, and calculating their ratio.

Due to changes in calculation methodology, on-time performance figures from May 2011 onward are not exactly comparable to prior months' figures.

TABLE 3: LIST OF WEEKDAY TRAINS LESS THAN 85% ON-TIME May 2015

			Minutes	Delay	
Line	Train	Date	Late		Delay Explanation
BNSF	1276	Fri, May 08	12	F	DOOR WOULD NOT CLOSE ON CAR 7409
809	% OT	Wed, May 20	12	E1	LATE FLIP DUE TO EARLIER LOCOMOTIVE PROBLEMS
		Thu, May 28	14	K1	LATE FLIP DUE TO EARLIER BRIDGE STRIKE
		Fri, May 29	19	D1	CBTMCXC IN EMERGENCY AT DGM
НС	917	Thu, May 07	18	D	23" BNSF DISP HAD TRACK CIRCUIT DOWN IN PLANT, ENGINEER ON#917 SAID THERE WERE 2
					FREIGHTS GOING THRU PLANT, CORWITH.
709	% OT	Mon, May 18	8	CC	10" UP TRACK WORK, JOLIET.
		Tue, May 19	7	D	4M DELAY AT STATEVILLE CROO TRAFFIC, 6M JOLIET TRACK WORK
		Wed, May 20	9	C	6M LEMOYNE WAITING FOR NS 17V 6200FT TO CLEARà8M TRACK WORK AHEAD
		Fri, May 22	22	D	5M BRIGHTON ACCT X-TRAFFIC 20W, NS9754, 6000FTà6M JOLIET WAITING FOR SIGNAL
		Tue, May 26	7	RF	3M BRIGHTON STOP SIGNALà4M LEMOYNE BRC WAITING FOR INSTRUCTIONS FROM CN DISPATCHER
HC	919	Tue, May 05	8	RF	12" STOP SIGNAL, X/O 36.
609	% OT	Thu, May 07	11	GF	11" RESTRICTING SPEED, LOCKPORT TO XO36.
		Fri, May 08	9	K	12" BRIDGE WOULD NOT SEAT, LUMBER ST.
		Mon, May 11	6	AM	7" FOLLOWING AMTRAK 305 MEETING TRAIN COMING OUT OF YD, CORWITH.
		Tue, May 12	15	RF	15" WAIT ON UP DISPATCHER TO GIVE SIGNAL.
		Mon, May 18	8	C	3" 10MPH, MP7.9; 8" RED SIGNAL X/O 36 COULD NOT GET AUTHORITY FROM FOREMAN IN CHARGE,
					JOLIET.
		Tue, May 19	11	K	9" RED SIGNAL BRIDGE NOT DOWN, LUMBER; 3" 10MPH SPEED RESTRICTION; 4" RESTRICTING, STATEVILLE-JOLIET.
		Wed, May 27	17	AM	11M LUMBER BRIDGE LIFT, 5M CERMACK STOP SIGNAL, 4M LEMOYNE CROSS TRAFFIC, 3M STATEVILLE RESTRICTING SIGNAL
MN	2107	Mon, May 04	9	CC	3" FOLLOWING TRAINS AHEAD, CUS TO A-2; 4" STOP SIGNAL, MAYFAIR; 2" SPEED RESTRICTIONS.
	% OT	Wed, May 06	10	C1	2" FOLLOWING TRAINS, CUS-A-2; 5" STOP SIGNAL, MAYFAIR; 4" MEET #2126 NO INTERTRACK FENCE, LAKE COOK RD; 2" SEVERAL SPEED RESTRICTIONS.
		Fri, May 08	11	A	6" X-TRAFFIC, MAYFAIR; 2" FOLLOWING TRAINS, CUS-A2; 4" PSGR ON WRONG TRAIN(ELGIN), LIBERTYVILLE.
		Mon, May 11	12	R	7" ENGINEER USING RESTROOM, CUS; 4" UNSPECIFIED YELLOW-RED FLAGTEST, MP36.0; 2" SEVERAL SPEED RESTRICTIONS.
		Fri, May 29	10	D	3" CUS - A3; 1" PASSENGER LOADING, LAKE COOK ROAD; 3" SEVERAL SPEED RESTRICTIONS; 4" S/B
		111, 111ay 2)	10	D	FREIGHT, CN
MN	2141	Fri, May 01	8	GA1	8" LATE ARRIVAL OF #2140 ACCT SWITCH PROBLEM, CANAL ST.
809	% ОТ	Tue, May 05	10	D1	3" RESTRICTING/STOP 1.0 WAITING FOR NCS AHEAD, WESTERN; 3" ADA,CUS TO GOLF; 2" STOP, MAYFAIR; 2" STOP FREIGHT ON #2, RONDOUT.
		Fri, May 08	8	G	5" APPROACH AND RESTRICTING SIGNAL, FOX LAKE;3" SLOW LOADING/ UNLOADING AND STORMY WEATHER, ENROUTE.
		Fri, May 15	9	AM1	8" FOLLOWING TRAINS AHEAD TO A-5, CUS.
NCS	109	Fri, May 01	38	GA	33" SWITCH FAILURE, CUS; 2" ITEM 2, GRAND/CICERO; 5" FOLLOWING TRAINS AHEAD A-5 - B-12.
	% OT	Mon, May 04	10	RF	11" WAITING ON #2129, METRA CROSSING.
		Wed, May 06	11	D	12" FOLLOWING N/B CN FREIGHT.
		Fri, May 08	6	D	4" SLOW ORDERS, CUS-RIVER GROVE; 7" STOP SIGNAL, DEVAL.
RI	530	Thu, May 07	6	RD	2" SLOW ENTRAINING, 80TH AVE; $3"$ 9 CAR TRAIN, BEV SUB; $3"$ WAIT FOR SIGNAL(OPERATOR ERROR), BRIDGE B.
759	% ОТ	Wed, May 13	14	J	17" WAIT FOR PD TO REMOVE DISRUPTIVE PASSENGER, 99TH ST.
		Fri, May 22	8	D	DELAYED FOLLOWING IAIS 510 AT ROBBINS
		Thu, May 28	6	I	DELAYED 2M @ OAK PARK AVE & 2M @ 95TH ACCT SLOW LOADING, 3M ACCT DRAGGING 9 CAR TRAIN DOWN BEVERLY SUB.
		Fri, May 29	10	U	3M @ 16TH FOR RED SIGNAL 7M FOR ENGINEER RUNNING TIME

Data is final (06/19/15) version from TOPS.

TABLE 4: DELAY INCIDENT CODES AND DEFINITIONS

A AA AA AD AM AS AW B B C C CA CC CF CG CG CCH CO	A1 AA1 AD1 AM1 AS1 AW1	XA XAA XAD	Passenger Train Interference Rule 9.9 Delayed in Block/Rule 6.30	Delay Class Transportation	Responsibility Controllable
AD AM AS AW B BA C C CA CC CF CG CH	AD1 AM1 AS1		Pula 0.0 Dalayad in Plack/Pula 6.20	T	
AM AS AW B BA C C CA CC CF CG CH	AM1 AS1	XAD	Kule 9.9 Delayed III Block/Kule 0.50	Transportation	Controllable
AS AW B BA C C CA CC CF CG CH	AS1		Non-Revenue Passenger Train Interference	Transportation	Controllable
AW B BA C C CA CC CF CG CH		XAM	Amtrak Caused Delay	Transportation	Controllable
B BA C CA CC CF CG	AW1	XAS	NICTD Train Interference	Transportation	Controllable
BA C CA CC CF CG CH		XAW	Pass. Train Interference, Weather	Transportation	Uncontrollable
C CA CC CF CG CH	B1	XB	Human Error, Eng. Dept.	Engineering	Controllable
CA CC CF CG CH	BA1	XBA	Amtrak Engineering Human Error	Engineering	Controllable
CC CF CG CH	C1	XC	Unscheduled Track Work	Engineering	Controllable
CF CG CH	CA1	XCA	Amtrak Engineering	Engineering	Semi-controllabl
CG CH	CC1	XCC	Scheduled Track Work	Engineering	Controllable
CG CH	CF1	XCF	Engineering Equipment Malfunction	Engineering	Controllable
CH	CG1	XCG	Scheduled Signal Work	Engineering	Controllable
	CH1	XCH	Contractor Failure	Engineering	Controllable
	CO1	XCO	Scheduled Wire Work	Engineering	Controllable
CM	CM1	XCM	Switch Malfunction (Track Dept.)	Engineering	Controllable
CW	CW1	XCW	M of W Work, Weather	Engineering	Uncontrollable
D	D1	XD	Freight Train Interference	Transportation	Semi-controllabl
DD	DD1	XDD	Freight Dispatcher/Opr/Freight Train Error	Transportation	Controllable
DE DE	DE1	XDE	Freight Mechanical Malfunction	Transportation	Semi-controllabl
DE DM	DM1	XDM	Freight-Accident/Incident	Incidental	Uncontrollable
			· ·		
DR DW	DR1	XDR VDW	Freight-Human Error Freight Train Interference, Weather	Transportation Transportation	Semi-controllable
	DW1	XDW	<u> </u>	Transportation	Uncontrollable
E	E1	XE	Locomotive Malfunction	Mechanical	Controllable
EA	EA1	XEA	Amtrak Locomotive/Car Malfunction	Mechanical	Uncontrollable
EW	EW1	XEW	Locomotive Malfunction, Weather	Mechanical	Uncontrollable
EZ	EZ1	XEZ		Mechanical	Controllable
F	F1	XF	Cab Car/Trailer/MU Malfunction	Mechanical	Controllable
FS	FS1	XFS	NICTD MU Malfunction	Mechanical	Uncontrollable
FW	FW1	XFW	Cab Car/TRL/MU Malfunction, Weather	Mechanical	Uncontrollable
FZ	FZ1	XFZ	ETMS Malfunction on Cab Car	Mechanical	Controllable
G	G1	XG	Signal/Switch Malfunction (Signal Dept.)	Engineering	Controllable
GA	GA1	XGA	Signal/Switch Failure Amtrak (Signal Dept.)	Engineering	Semi-controllab
GF	GF1	XGF	Signal/Switch Foreign Line	Engineering	Semi-controllable
GM	GM1	XGM	Gate Crossing Malfunction	Engineering	Controllable
GT	GT1	XGT	Telecom Failure	Engineering	Controllable
GW	GW1	XGW	Signal/Switch Malfunction Weather (Signal Dept.)	Engineering	Uncontrollable
GX	GX1	XGX	Broken Gate Crossing	Engineering	Uncontrollable
GZ	GZ1	XGZ	ETMS Signal Malfunction	Engineering	Controllable
Н	H1	XH	Human Error, Mechanical Department	Mechanical	Controllable
HS	HS1	XHS	Human Error, NICTD Mechanical Dept.	Mechanical	Controllable
I	I1	XI	Passenger Handling, Running Time	Ridership	Uncontrollable
IB	IB1	XIB	Passenger Handling, Bicycle	Ridership	Uncontrollable
IW	IW1	XIW	Passenger Handling, Weather	Ridership	Uncontrollable
J	J1	XJ	Passenger Problems/Removal	Incidental	Uncontrollable
JA	JA1	XJA	Amtrak Passenger Problems/Removal	Incidental	Uncontrollable
JM	JM1	XJM	Passenger Medical Emergency	Incidental	Uncontrollable
K	K1	XK	Obstruction On Tracks	Incidental	Uncontrollable
KD	KD1	XKD	Train Struck Debris	Incidental	Uncontrollable
KP	KP1	XKP	Suspicious Package(s)/Person(s)/Activity	Incidental	Uncontrollable
KW	KW1	XKW	Obstruction On Tracks, Weather	Incidental	Uncontrollable
T T	Ll	XL	Unauthorized People On Tracks/Near Miss	Incidental	Uncontrollable
M	M1	XM	Right of Way Accident/Misc.	Incidental	Uncontrollable
MW			Right of Way Accident/Misc., Weather	Incidental	Uncontrollable
N	MW1 N1	XMW XN	Electricity Utility Failure	Incidental	Uncontrollable
NW	NW1	XNW	Electricity Utility Failure, Weather	Incidental	Uncontrollable
O	O1	XO	AC/DC System Failure	Engineering	Controllable
			•		
OW	OW1	XOW	AC/DC System Failure, Weather	Engineering Transportation	Uncontrollable
Q	Q1	XQ VP	Late Issuance of Track Warrant	Transportation Transportation	Controllable
R	R1	XR	Human Error, Transportation	Transportation	Controllable
RA	RA1	XRA	Human Error, Amtrak Transportation	Transportation	Controllable
RD	RD1	XRD	Human Error, Metra Dispatcher	Transportation	Controllable
RF	RF1	XRF	Freight Dispatcher/Opr/Non-Freight Train Error	Transportation	Controllable
RL	RL1	XRL	Human Error, Job Action/Employee No Show (CMS Error)		Controllable
RN	RN1	XRN	1	Transportation	Controllable
RO	RO1	XRO	Human Error, Tower Operator	Transportation	Controllable
RS	RS1	XRS	Human Error, NICTD Transportation	Transportation	Controllable
RW	RW1	XRW	Train Crew Issues, Weather	Transportation	Uncontrollable
RZ	RZ1	XRZ	ETMS Train Crew Error	Transportation	Controllable
S	S1	XS	Operational (Efficiency) Testing	Transportation	Uncontrollable
T	T1	XT	Property Vandalism	Incidental	Uncontrollable
U	U1	XU	Accessibility Related (ADA)	Ridership	Uncontrollable
UF	UF1	XUF	ADA Lift Failure	Mechanical	Controllable
UW	UW1	XUW	Accessibility, Weather	Ridership	Uncontrollable
VE	VE1	XVE		Incidental	Controllable
VF VC	VF1	XVF	Cab Car Problem Reported, Nothing Found	Incidental	Controllable
VG W	VG1 W1	XVG XW	Broken Gate Crossing Reported, Nothing Found Gas Leak	Incidental Incidental	Uncontrollable Uncontrollable

Effective January 1, 2014 Revised February 3 & March 12, 2014

TABLE 5: DELAY INCIDENT CODES SORTED BY CAUSE CATEGORY

CATEGORY	CATEGORY	
Codes	Codes	
Pri. Sec. Ann. Definition		Definition
1 PASSENGER TRAIN INTERFERENCE		LOCOMOTIVE FAILURE
A A1 XA Passenger Train Interference		Locomotive Malfunction
AA AA1 XAA Rule 9.9 Delayed in Block/Rule 6.30		Amtrak Locomotive/Car Malfunction
AD AD1 XAD Non-Revenue Passenger Train Interference		ETMS Malfunction on Locomotive
AM AM1 XAM Amtrak Caused Delay		HUMAN ERROR
AS AS1 XAS NICTD Train Interference		Human Error, Eng. Dept.
2 & 3 FREIGHT INTERFERENCE, Peak & Offpeak		Amtrak Engineering Human Error
D D1 XD Freight Train Interference		Human Error, Mechanical Department
DD DD1 XDD Freight Dispatcher/Opr/Freight Train Error		Human Error, NICTD Mechanical Dept.
DE DE1 XDE Freight Mechanical Malfunction		Human Error, Transportation
DR DR1 XDR Freight-Human Error		Human Error, Amtrak Transportation
4 ACCIDENT		Human Error, Metra Dispatcher
DM DM1 XDM Freight-Accident/Incident		Freight Dispatcher/Opr/Non-Freight Train Error
M M1 XM Right of Way Accident/Misc.		Human Error, Job Action/Employee No Show (CMS Error)
5 PASSENGER LOADING		Human Error, Job Action/Employee No Show (Non-CMS)
I II XI Passenger Handling, Running Time		Human Error, Tower Operator
IB IB1 XIB Passenger Handling, Bicycle		Human Error, NICTD Transportation
6 LIFT DEPLOYMENT		ETMS Train Crew Error
U U1 XU Accessibility Related (ADA)		SICK, INJURED, UNRULY PASSENGER
UF UF1 XUF ADA Lift Failure		Passenger Problems/Removal
7 OBSTRUCTION/DEBRIS		Amtrak Passenger Problems/Removal
K K1 XK Obstruction On Tracks		Passenger Medical Emergency
KD KD1 XKD Train Struck Debris	15 V	WEATHER
KP KP1 XKP Suspicious Package(s)/Person(s)/Activity	AW AW1 XAW	Pass. Train Interference, Weather
8 SIGNAL/SWITCH FAILURE	CW CW1 XCW	M of W Work, Weather
CM CM1 XCM Switch Malfunction (Track Dept.)	DW DW1 XDW	Freight Train Interference, Weather
G G1 XG Signal/Switch Malfunction (Signal Dept.)	EW EW1 XEW	Locomotive Malfunction, Weather
GA GA1 XGA Signal/Switch Failure Amtrak (Signal Dept.)	FW FW1 XFW	Cab Car/TRL/MU Malfunction, Weather
GF GF1 XGF Signal/Switch Foreign Line	GW GW1 XGW	Signal/Switch Malfunction Weather (Signal Dept.)
GM GM1 XGM Gate Crossing Malfunction	IW IW1 XIW	Passenger Handling, Weather
GT GT1 XGT Telecom Failure	KW KW1 XKW	Obstruction On Tracks, Weather
GX GX1 XGX Broken Gate Crossing	MW MW1XMW	Right of Way Accident/Misc., Weather
GZ GZ1 XGZ ETMS Signal Malfunction	NW NW1 XNW	Electricity Utility Failure, Weather
VG VG1 XVG Broken Gate Crossing Reported, Nothing Found	OW OW1 XOW	AC/DC System Failure, Weather
9 TRACK WORK	RW RW1 XRW	Train Crew Issues, Weather
C C1 XC Unscheduled Track Work	UW UW1 XUW	Accessibility, Weather
CA CA1 XCA Amtrak Engineering	16 (	OTHER
CC CC1 XCC Scheduled Track Work	L L1 XL	Unauthorized People On Tracks/Near Miss
CF CF1 XCF Engineering Equipment Malfunction	N N1 XN	Electricity Utility Failure
CG CG1 XCG Scheduled Signal Work	Q Q1 XQ	Late Issuance of Track Warrant
CH CH1 XCH Contractor Failure		Operational (Efficiency) Testing
10 CATENARY FAILURE		Property Vandalism
CO CO1 XCO Scheduled Wire Work	VE VE1 XVE	Locomotive Problem Reported, Nothing Found
O O1 XO AC/DC System Failure		Cab Car Problem Reported, Nothing Found
11 NON-LOCOMOTIVE EQUIPMENT FAILURE	W W1 XW	Gas Leak
F F1 XF Cab Car/Trailer/MU Malfunction	Ì	
FS FS1 XFS NICTD MU Malfunction	Ì	
FZ FZ1 XFZ ETMS Malfunction on Cab Car	Ì	
	Ì	
Effective January 1 2014 Pavised January 15 2015		· · · · · · · · · · · · · · · · · · ·

Effective January 1, 2014

Revised January 15, 2015

# TABLES 6.a, 6.b, 6.c, & 6.d: FREQUENCY OF TRAIN DELAYS BY CONTROL AND LINE May 2015

			Electric			Mi	w				Uı	nion Pacif	ic		
DELAY CONTROL	BNSF	ML	BI	SC	HER	N	W	NCS	RI	SWS	N	NW	W	SYST	EM
Controllable	33	17	3	9	10	43	23	5	20	6	27	22	18	236	51%
Semi-controllable	16	0	0	0	5	7	5	13	2	13	0	3	6	70	15%
Uncontrollable	24	25	8	9	2	16	11	1	13	4	10	22	11	156	34%
TOTAL TRAINS DELAYED	73	42	11	18	17	66	39	19	35	23	37	47	35	462	100%

## May - Average Over Previous Three Years: 2012-2014

			Electric			Mi	lw				Ur	ion Paci	fic		
DELAY CONTROL	BNSF	ML	BI	SC	HER	N	W	NCS	RI	SWS	N	NW	W	SYST	EM
Controllable	119.3	24.7	6.7	10.0	1.7	46.0	22.3	15.7	32.0	10.0	31.0	39.7	22.0	381.0	50%
Semi-controllable	29.0	0.0	0.0	0.0	4.7	16.7	16.3	15.3	3.3	19.7	2.3	5.3	17.7	130.3	17%
Uncontrollable	33.7	27.3	5.0	9.7	0.3	18.0	13.7	4.0	37.0	6.3	29.0	35.3	30.0	249.3	33%
TOTAL TRAINS DELAYED	182.0	52.0	11.7	19.7	6.7	80.7	52.3	35.0	72.3	36.0	62.3	80.3	69.7	760.7	100%

# May 2015 Divergence From May Average Over Previous Three Years

			Electric			M	ilw				Uı	nion Paci	fic		
DELAY CONTROL	BNSF	ML	BI	SC	HER	N	W	NCS	RI	SWS	N	NW	W	SYST	EM
Controllable	-86.3	-7.7	-3.7	-1.0	8.3	-3.0	0.7	-10.7	-12.0	-4.0	-4.0	-17.7	-4.0	-145.0	49%
Semi-controllable	-13.0	0.0	0.0	0.0	0.3	-9.7	-11.3	-2.3	-1.3	-6.7	-2.3	-2.3	-11.7	-60.3	20%
Uncontrollable	-9.7	-2.3	3.0	-0.7	1.7	-2.0	-2.7	-3.0	-24.0	-2.3	-19.0	-13.3	-19.0	-93.3	31%
TOTAL TRAINS DELAYED	-109.0	-10.0	-0.7	-1.7	10.3	-14.7	-13.3	-16.0	-37.3	-13.0	-25.3	-33.3	-34.7	-298.7	100%

# January-May 2015

			Electric			Mi	lw				Uı	nion Pacif	ïc		
DELAY CONTROL	BNSF	ML	BI	SC	HER	N	W	NCS	RI	SWS	N	NW	W	SYST	EM
Controllable	250	105	25	44	20	260	127	72	98	47	79	82	94	1,303	37%
Semi-controllable	81	0	0	0	32	92	58	87	13	97	14	37	122	633	18%
Uncontrollable	277	252	73	63	7	175	149	26	77	35	115	208	136	1,593	45%
TOTAL TRAINS DELAYED	608	357	98	107	59	527	334	185	188	179	208	327	352	3,529	100%

Data for current month is final (06/19/15) version from TOPS.

P:\ONTIME\report\[DelaysByControl.xls]LastMonthRespByLine

TABLE 7: NUMBER OF DELAYS BY DATE May 2015

WEEKDAY	1	4	5	6	7	8	11	12	13	14	15	18	19	20	21	22	26	27	28	29			TOTAL
WEEKDATI	Fr	_		We	Th	Fr			We		Fr			We		Fr		We		Fr			
BNSF	6	0	3	3	1	5	4	1	0	0	0	2	4	5	4	3	1	0	11	11			64
Elec -ML	6	0	0	1	2	0	4	1	1	0	0	4	5	2	2	0	0	1	2	3			34
-BI	1	0	1	0	0	0	1	0	1	0	0	0	0	4	0	1	1	0	0	0			10
-SC	0	0	1	1	0	1	0	1	0	0	0	1	1	3	0	0	0	0	3	2			14
Heritage	0	0	1	0	2	1	1	1	0	0	0	3	2	2	0	1	1	1	0	1			17
Milw -N	8	2	2	4	0	11	1	2	0	0	6		0	1	0	0	0	0	1	4			47
-W	3	0	2	4	0	2	3	3	0	0	0	2	1	1	0	3	0	0	2	1			27
NCS	5	1	0	3	2	3	0	0	0	0	0	2	0	1	0	0	0	1	0	1			19
RI	2	2	1	0	1	0	0	0	1	0	0	3	4	4	0	4	2	0	7	1			32
sws	1	2	1	3	0	1	2	1	1	0	0	0	4	1	0	1	1	0	1	0			20
UP -N	0	3	1	0	4	0	4	0	1	3	2	0	3	1	0	0	1	3	0	0			26
-NW	0	1	0	12	3	1	0	0	0	0	0	1	0	2	0	2	1	1	0	0			24
-W	0	<u>3</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>9</u>	<u>2</u>	0	0	<u>0</u>	<u>3</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>3</u>	<u>4</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>			<u>29</u>
SYSTEM	32	14	13	31	16	34	22	10	5	3	11	24	25	27	9	19	8	7	27	26			363
SATURDAY	2	9	16	23	30	7	ГОТ	AL			SU	NDA	Y/I	IOI	LID	ΑY	3	10	17	24	25	31	TOTAL
BNSF	0	1	2	0	0			3			B	NSF					6	0	0	0	0	0	6
Elec -ML	2	1	2	1	0			6			El	ec	-ML	,			0	0	0	0	2	0	2
-BI	0	0	1	0	0			1					-BI				-	-	-	-	-	-	0
-SC	1	0	2	0	1			4					-SC				0	0	0	0	0	0	0
Heritage	-	-	-	-	-			-			Н	erita	ge				-	-	-	-	-	-	0
Milw -N	1	3	3	4	2			13			Μ	ilw	-N				3	1	0	0	0	2	6
-W	2	1	4	0	0			7					<b>-W</b>				1	1	0	2	0	1	5
NCS	-	-	_	-	_			-			N	CS					-	_	-	_	-	-	0
RI	1	0	0	1	0			2			R	[					1	0	0	0	0	0	1
SWS	1	2	0	0	0			3			S	WS					-	-	-	-	_	-	0
UP -N	1	1	3	6	0			11			<b>U</b> I	P	-N				0	0	0	0	0	0	0
-NW	13	1	0	2	0			16			0.		-11 -NW	7			0	0	0	5	2	0	7
- <b>W</b>	0	0	0	<u>1</u>	0			1					-W				0	<u>3</u>	1	0	0	1	<u>5</u>
SYSTEM	22	10	17	15	3			67			C.	YSTE	M				11	5	1	7	4	4	32

Data is final (06/19/15) version from TOPS.

 $P: \label{eq:continuous} P: \label{eq:contin$ 

TABLE 8.a: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE May 2015

		-	Flootwio	1714	y 2015	Mil					T I	ion Pacif	10	1
CAUSE CATEGORY	BNSF	ML	Electric BI	SC	HER	N	W	NCS	RI	SWS	N	NW	W	SYSTEM
Freight Interference - TOTAL	20	0	0	0	4	5	2	8	2	9	0	3	6	5151EW
Freight Interference - Peak	20	0	0	0	4	2	0	4	0	1	0	2	1	23
Primary	2	0	0	0	4	1	0	3	0	1	0	1	1	13
Secondary	7	0	0	0	0	1	0	1	0	0	0	1	0	10
Freight Interference - Off-Peak	11	0	0	0	0	3	2	4	2	8	0	1	5	36
Primary	7	0	0	0	0	3	2	2	2	7	0	1	4	28
Secondary	4	0	0	0	0	0	0	2	0	1	0	0	1	8
Signal/Switch Failure - TOTAL	4	10	1	2	1	10	16	7	2	5	0	0	11	69
Signal/Switch Failure - Metra/PSA	4	10	1	2	0	8	13	2	2	1	0	0	11	54
Primary	4	7	0	0	0	5	6	2	2	1	0	0	3	30
Secondary	0	3	1	2	0	3	7	0	0	0	0	0	8	24
Signal/Switch Failure - Foreign	0	0	0	0	1	2	3	5	0	4	0	0	0	15
Primary	0	0	0	0	1	1 1	1	1	0	3 1	0	0	0	7
Secondary	0	0	0	0	0		2	4	0	•		0	0	8
Mechanical Failure - TOTAL	11	0	0	0	0	8	3	0	6	0	6	15	2	51
Mechanical Failure - Metra/PSA	11	0	0	0	0	8	3	0	6	0	6	15	2	51
Non-Locomotive Equipment Failure - Metra/PSA  Primary	2	0	0	0	0	1 1	1	0	1 1	0	0	1 1	2	8
Secondary	1	0	0	0	0	0	0	0	0	0	0	0	1	2
Locomotive Failure - Metra/PSA	9	0	0	0	0	7	2	0	5	0	6	14	0	43
Primary	3	0	0	0	0	3	1	0	2	0	3	3	0	15
Secondary	6	0	0	0	0	4	1	0	3	0	3	11	0	28
Mechanical Failure - Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Passenger Train Interference - TOTAL	4	1	0	0	2	6	0	2	0	1	0	0	0	16
Passenger Train Interference - Metra/PSA	0	0	0	0	0	1	0	2	0	1	0	0	0	4
Passenger Train Interference - Foreign	4	1	0	0	2	5	0	0	0	0	0	0	0	12
Accident - TOTAL	2	0	0	0	0	5	2	0	0	0	0	11	0	20
Accident - Metra/PSA	2	0	0	0	0	5	0	0	0	0	0	11	0	18
Accident - Foreign	0	0	0	0	0	0	2	0	0	0	0	0	0	2
Track Work - TOTAL	1	4	0	5	4	18	5	0	5	2	11	2	0	57
Track Work - Metra/PSA	1	4	0	5	4	18	5	0	5	2	11	2	0	57
Track Work - Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Human Error - TOTAL	6	1	2	0	4	3	2	1	6	2	9	3	1	40
Human Error - Metra/PSA	6	1	2	0	0	3	1	0	6	1	5	3	0	28
Human Error - Foreign	0	0	0	0	4	0	1	1	0	1	4	0	1	12
Sick, Injured, Unruly Passenger - TOTAL	3	7	2	0	0	1	3	0	4	0	1	2	1	24
Sick, Injured, Unruly Passenger - Metra/PSA	3	7	2	0	0	1	3	0	4	0	1	2	1	24
Sick, Injured, Unruly Passenger - Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weather - TOTAL	1	0	0	0	0	0	0	1	1	0	0	0	0	3
Weather - Metra/PSA	1	0	0	0	0	0	0	1	1	0	0	0	0	3
Weather - Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Passenger Loading - TOTAL	3	9	1	1	0	5	1	0	5	1	6	9	3	44
Lift Deployment - TOTAL	1	0	0	0	0	2	1	0	1	1	2	1	0	9
Obstruction/Debris - TOTAL	14	9	4	6	2	1	4	0	0	2	1	0	5	48
Catenary Failure - TOTAL	0	1	0	2	0	0	0	0	0	0	0	0	0	3
Other - TOTAL	3	0	1	2	0	2	0	0	3	0	1	1	6	19
TOTAL TRAINS DELAYED	73	42	11	18	17	66	39	19	35	23	37	47	35	462
Total Metra/PSA Delays	49	41	11	18	6	54	31	5	33	9	33	44	28	362
Total Foreign Carrier Delays	24	1	0	0	11	12	8	14	2	14	4	3	7	100
Total Totalgh Carrier Delays		-		3	- 11	12	3				·			100

Data for current month is final (06/19/15) version from TOPS.

<sup>&#</sup>x27;Metra/PSA' refers to delays that may be directly or indirectly attributed to Metra or Metra Purchase of Service Agreement partners (BNSF and UP) in commuter rail operation.

'Foreign' refers to delays that may be directly or indirectly attributed to other carriers, including freight carriers, Amtrak, and NICTD, that affect Metra trains. 'Foreign' also includes delays attributable to BNSF and Union Pacific freight operations.

TABLE 8.b: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE

May - Average Over Previous Five Years: 2010-2014

		Avera	Electric			Mi					Uı	nion Paci	fic	
CAUSE CATEGORY	BNSF	ML	BI	SC	HER	N	W	NCS	RI	SWS	N	NW	W	SYSTEM
Freight Interference - TOTAL	22.6	0.0	0.0	0.0	2.8	13.4	13.0	11.0	3.0	12.6	1.6	5.6	16.0	101.6
Freight Interference - Peak	12.8	0.0	0.0	0.0	2.8	3.4	2.6	5.8	0.0	3.8	0.4	2.4	3.2	37.2
Primary	8.6	0.0	0.0	0.0	2.6	2.6	2.2	4.8	0.0	3.6	0.2	1.0	1.0	26.6
Secondary	4.2	0.0	0.0	0.0	0.2	0.8	0.4	1.0	0.0	0.2	0.2	1.4	2.2	10.6
Freight Interference - Off-Peak	9.8	0.0	0.0	0.0	0.0	10.0	10.4	5.2	3.0	8.8	1.2	3.2	12.8	64.4
Primary	8.4	0.0	0.0	0.0	0.0	7.8	8.8	5.2	2.6	6.6	0.8	2.4	10.8	53.4
Secondary	1.4	0.0	0.0	0.0	0.0	2.2	1.6	0.0	0.4	2.2	0.4	0.8	2.0	11.0
Signal/Switch Failure - TOTAL	18.8	9.2	2.6	1.2	2.0	20.0	11.2	7.6	8.8	9.6	13.8	12.6	9.0	126.4
Signal/Switch Failure - Metra/PSA	14.4	9.2	2.6	1.2	0.8	19.6	10.0	5.8	8.8	1.8	13.4	12.2	8.6	108.4
Primary	11.2	8.4	2.4	0.8	0.8	11.8	6.4	4.6	7.4	1.4	5.0	3.4	4.0	67.6
Secondary	3.2	0.8	0.2	0.4	0.0	7.8	3.6	1.2	1.4	0.4	8.4	8.8	4.6	40.8
Signal/Switch Failure - Foreign	4.4	0.0	0.0	0.0	1.2	0.4	1.2	1.8	0.0	7.8	0.4	0.4	0.4	18.0
Primary	3.8	0.0	0.0	0.0	0.8	0.4	1.2	1.2	0.0	6.4	0.4	0.4	0.4	15.0
Secondary	0.6	0.0	0.0	0.0	0.4	0.0	0.0	0.6	0.0	1.4	0.0	0.0	0.0	3.0
Mechanical Failure - TOTAL	15.4	2.6	0.2	0.8	0.2	13.8	10.4	4.0	6.8	2.2	8.0	8.4	4.8	77.6
Mechanical Failure - Metra/PSA	15.4	1.4	0.2	0.8	0.2	13.8	10.4	4.0	6.8	2.2	8.0	8.4	4.8	76.4
Non-Locomotive Equipment Failure - Metra/PSA	0.8	1.4	0.2	0.8	0.0	1.2	3.0	0.0	0.8	0.0	1.2	1.0	2.2	12.6
Primary	0.6	1.2	0.2	0.8	0.0	0.6	1.0	0.0	0.4	0.0	0.4	0.8	1.4	7.4
Secondary	0.2	0.2	0.0	0.0	0.0	0.6	2.0	0.0	0.4	0.0	0.8	0.2	0.8	5.2
Locomotive Failure - Metra/PSA	14.6	0.0	0.0	0.0	0.2	12.6	7.4	4.0	6.0	2.2	6.8	7.4	2.6	63.8
Primary Secondary	4.4 10.2	0.0 0.0	0.0 0.0	0.0 0.0	0.2	3.0 9.6	1.6 5.8	1.2 2.8	2.8 3.2	1.2 1.0	2.4 4.4	1.4 6.0	1.0 1.6	19.2 44.6
· ·														
Mechanical Failure - Foreign	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Passenger Train Interference - TOTAL	2.8	0.4	0.0	1.0	0.4	6.2	1.6	0.6	1.8	0.2	1.2	0.6	1.2	18.0
Passenger Train Interference - Metra/PSA	0.0	0.2	0.0	0.6	0.0	4.8	1.4	0.6	0.8	0.2	1.2	0.4	1.2	11.4
Passenger Train Interference - Foreign	2.8	0.2	0.0	0.4	0.4	1.4	0.2	0.0	1.0	0.0	0.0	0.2	0.0	6.6
Accident - TOTAL	10.2	0.0	0.0	0.8	0.0	11.2	1.0	1.6	1.0	1.0	6.4	11.8	8.2	53.2
Accident - Metra/PSA	10.2	0.0	0.0	0.8	0.0	11.2	1.0	1.6	1.0	1.0	6.4	11.8	8.0	53.0
Accident - Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
Track Work - TOTAL	50.6	6.0	1.2	3.0	1.0	22.8	4.2	2.8	3.2	1.0	10.8	6.0	5.8	118.4
Track Work - Metra/PSA	50.6	6.0	1.2	3.0	1.0	22.6	4.0	2.2	3.2	1.0	10.8	6.0	5.8	117.4
Track Work - Foreign	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.6	0.0	0.0	0.0	0.0	0.0	1.0
Human Error - TOTAL	14.0	8.2	1.2	2.8	1.2	5.4	2.0	2.0	7.0	4.6	2.8	3.6	4.2	59.0
Human Error - Metra/PSA	10.0	8.2	1.2	2.8	0.0	3.2	1.2	0.4	6.8	2.2	1.6	2.4	3.4	43.4
Human Error - Foreign	4.0	0.0	0.0	0.0	1.2	2.2	0.8	1.6	0.2	2.4	1.2	1.2	0.8	15.6
Sick, Injured, Unruly Passenger - TOTAL	2.8	6.8	0.8	1.4	0.2	1.6	2.8	0.0	2.6	0.4	4.2	4.0	4.2	31.8
Sick, Injured, Unruly Passenger - Metra/PSA	2.8	6.8	0.8	1.4	0.2	1.6	2.8	0.0	2.6	0.4	4.2	4.0	4.2	31.8
Sick, Injured, Unruly Passenger - Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Weather - TOTAL	3.8	1.8	0.0	1.0	0.0	3.4	1.0	0.6	3.2	1.0	5.4	3.4	1.2	25.8
Weather - Metra/PSA	3.8	1.8	0.0	1.0	0.0	3.4	1.0	0.6	3.2	0.8	5.4	3.4	1.2	25.6
Weather - Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2
Passenger Loading - TOTAL	10.8	14.4	2.4	3.8	0.2	7.8	5.4	0.0	16.6	0.0	7.4	10.8	8.0	87.6
Lift Deployment - TOTAL	3.0	0.0	0.0	0.0	0.0	3.4	2.0	0.2	6.2	0.4	1.6	2.0	2.4	21.2
Obstruction/Debris - TOTAL	1.6	1.8	0.8	2.6	0.0	3.4	1.6	0.0	1.8	1.8	3.8	5.4	5.2	29.8
Catenary Failure - TOTAL	0.0	1.6	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
Other - TOTAL	4.2	2.6	0.8	0.4	0.0	1.4	1.2	0.0	3.8	1.4	3.4	2.4	5.6	27.2
TOTAL TRAINS DELAYED	160.6	55.4	10.4	19.0	8.0	113.8	57.4	30.4	65.8	36.2	70.4	76.6	75.8	779.8
Total Metra/PSA Delays	126.8	54.0	10.4	18.6	2.4	96.2	42.0	15.4	61.6	13.2	67.2	69.2	58.4	635.4
Total Foreign Carrier Delays	33.8	1.4	0.0	0.4	5.6	17.6	15.4	15.0	4.2	23.0	3.2	7.4	17.4	144.4

Data for latest month is final (06/16/14) version from TOPS.

<sup>&#</sup>x27;Metra/PSA' refers to delays that may be directly or indirectly attributed to Metra or Metra Purchase of Service Agreement partners (BNSF and UP) in commuter rail operation.

Foreign' refers to delays that may be directly or indirectly attributed to other carriers, including freight carriers, Amtrak, and NICTD, that affect Metra trains. 'Foreign' also includes delays attributable to BNSF and Union Pacific freight operations.

# TABLE 8.c: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE

May 2015 Divergence From May Average Over Previous Five Years

Way 20	13 DIV		Electric			Mi					II	nion Paci	fic	
CAUSE CATEGORY	BNSF	ML	BI	SC	HER	N	W	NCS	RI	SWS	N	NW	W	SYSTEM
Freight Interference - TOTAL	-2.6	0.0	0.0	0.0	1.2	-8.4	-11.0	-3.0	-1.0	-3.6	-1.6	-2.6	-10.0	-42.6
Freight Interference - Peak	-3.8	0.0	0.0	0.0	1.2	-1.4	-2.6	-1.8	0.0	-2.8	-0.4	-0.4	-2.2	-14.2
Primary	-6.6	0.0	0.0	0.0	1.4	-1.6	-2.2	-1.8	0.0	-2.6	-0.2	0.0	0.0	-13.6
Secondary	2.8	0.0	0.0	0.0	-0.2	0.2	-0.4	0.0	0.0	-0.2	-0.2	-0.4	-2.2	-0.6
Freight Interference - Off-Peak	1.2	0.0	0.0	0.0	0.0	-7.0	-8.4	-1.2	-1.0	-0.8	-1.2	-2.2	-7.8	-28.4
Primary	-1.4	0.0	0.0	0.0	0.0	-4.8	-6.8	-3.2	-0.6	0.4	-0.8	-1.4	-6.8	-25.4
Secondary	2.6	0.0	0.0	0.0	0.0	-2.2	-1.6	2.0	-0.4	-1.2	-0.4	-0.8	-1.0	-3.0
Signal/Switch Failure - TOTAL	-14.8	0.8	-1.6	0.8	-1.0	-10.0	4.8	-0.6	-6.8	-4.6	-13.8	-12.6	2.0	-57.4
Signal/Switch Failure - Metra/PSA	-10.4	0.8	-1.6	0.8	-0.8	-11.6	3.0	-3.8	-6.8	-0.8	-13.4	-12.2	2.4	-54.4
Primary	-7.2	-1.4	-2.4	-0.8	-0.8	-6.8	-0.4	-2.6	-5.4	-0.4	-5.0	-3.4	-1.0	-37.6
Secondary	-3.2	2.2	0.8	1.6	0.0	-4.8	3.4	-1.2	-1.4	-0.4	-8.4	-8.8	3.4	-16.8
Signal/Switch Failure - Foreign	-4.4	0.0	0.0	0.0	-0.2	1.6	1.8	3.2	0.0	-3.8	-0.4	-0.4	-0.4	-3.0
Primary	-3.8 -0.6	0.0	0.0	0.0	0.2	0.6 1.0	-0.2 2.0	-0.2	0.0	-3.4 -0.4	-0.4 0.0	-0.4	-0.4	-8.0
Secondary TOTAL		0.0			-0.4			3.4				0.0	0.0	5.0
Mechanical Failure - TOTAL	-4.4	-2.6	-0.2	-0.8	-0.2	-5.8	-7.4	-4.0	-0.8	-2.2	-2.0	6.6	-2.8	-26.6
Mechanical Failure - Metra/PSA	-4.4	-1.4	-0.2	-0.8	-0.2	-5.8	-7.4	-4.0	-0.8	-2.2	-2.0	6.6	-2.8	-25.4
Non-Locomotive Equipment Failure - Metra/PSA	1.2	-1.4 -1.2	-0.2 -0.2	-0.8 -0.8	0.0	-0.2 0.4	-2.0 0.0	0.0	0.2	0.0	-1.2 -0.4	0.0	-0.2 -0.4	-4.6
Primary Secondary	0.4 0.8	-1.2 -0.2	-0.2 0.0	-0.8	0.0	-0.6	-2.0	0.0	0.6 -0.4	0.0	-0.4	-0.2	-0.4	-1.4 -3.2
Locomotive Failure - Metra/PSA	-5.6	0.0	0.0	0.0	-0.2	-5.6	-5.4	-4.0	-1.0	-2.2	-0.8	6.6	-2.6	-20.8
Primary	-3.0 -1.4	0.0	0.0	0.0	-0.2	-3.0	-3. <del>4</del> -0.6	-4.0 -1.2	-1.0 -0.8	-2.2	-0.8	0.0 1.6	-2.0 -1.0	-20.8 -4.2
Secondary	-4.2	0.0	0.0	0.0	0.0	-5.6	-4.8	-2.8	-0.2	-1.0	-1.4	5.0	-1.6	-16.6
Mechanical Failure - Foreign	0.0	-1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.2
Passenger Train Interference - TOTAL	1.2	0.6	0.0	-1.0	1.6	-0.2	-1.6	1.4	-1.8	0.8	-1.2	-0.6	-1.2	-2.0
Passenger Train Interference - Metra/PSA	0.0	-0.2	0.0	-0.6	0.0	-3.8	-1.4	1.4	-0.8	0.8	-1.2	-0.4	-1.2	-7.4
Passenger Train Interference - Foreign	1.2	0.8	0.0	-0.4	1.6	3.6	-0.2	0.0	-1.0	0.0	0.0	-0.2	0.0	5.4
Accident - TOTAL	-8.2	0.0	0.0	-0.8	0.0	-6.2	1.0	-1.6	-1.0	-1.0	-6.4	-0.8	-8.2	-33.2
Accident - Metra/PSA	-8.2	0.0	0.0	-0.8	0.0	-6.2	-1.0	-1.6	-1.0	-1.0	-6.4	-0.8	-8.0	-35.0
Accident - Foreign	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	-0.2	1.8
Track Work - TOTAL	-49.6	-2.0	-1.2	2.0	3.0	-4.8	0.8	-2.8	1.8	1.0	0.2	-4.0	-5.8	-61.4
Track Work - Metra/PSA	-49.6	-2.0	-1.2	2.0	3.0	-4.6	1.0	-2.2	1.8	1.0	0.2	-4.0	-5.8	-60.4
Track Work - Foreign	0.0	0.0	0.0	0.0	0.0	-0.2	-0.2	-0.6	0.0	0.0	0.0	0.0	0.0	-1.0
Human Error - TOTAL	-8.0	-7.2	0.8	-2.8	2.8	-2.4	0.0	-1.0	-1.0	-2.6	6.2	-0.6	-3.2	-19.0
Human Error - Metra/PSA	-4.0	-7.2	0.8	-2.8	0.0	-0.2	-0.2	-0.4	-0.8	-1.2	3.4	0.6	-3.4	-15.4
Human Error - Foreign	-4.0	0.0	0.0	0.0	2.8	-2.2	0.2	-0.6	-0.2	-1.4	2.8	-1.2	0.2	-3.6
Sick, Injured, Unruly Passenger - TOTAL	0.2	0.2	1.2	-1.4	-0.2	-0.6	0.2	0.0	1.4	-0.4	-3.2	-2.0	-3.2	-7.8
Sick, Injured, Unruly Passenger - Metra/PSA	0.2	0.2	1.2	-1.4	-0.2	-0.6	0.2	0.0	1.4	-0.4	-3.2	-2.0	-3.2	-7.8
Sick, Injured, Unruly Passenger - Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Weather - TOTAL	-2.8	-1.8	0.0	-1.0	0.0	-3.4	-1.0	0.4	-2.2	-1.0	-5.4	-3.4	-1.2	-22.8
Weather - Metra/PSA	-2.8	-1.8	0.0	-1.0	0.0	-3.4	-1.0	0.4	-2.2	-0.8	-5.4	-3.4	-1.2	-22.6
Weather - Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	0.0	0.0	0.0	-0.2
Passenger Loading - TOTAL	-7.8	-5.4	-1.4	-2.8	-0.2	-2.8	-4.4	0.0	-11.6	1.0	-1.4	-1.8	-5.0	-43.6
Lift Deployment - TOTAL	-2.0	0.0	0.0	0.0	0.0	-1.4	-1.0	-0.2	-5.2	0.6	0.4	-1.0	-2.4	-12.2
Obstruction/Debris - TOTAL	12.4	7.2	3.2	3.4	2.0	-2.4	2.4	0.0	-1.8	0.0	-2.8	-5.4	-0.2	18.2
Catenary Failure - TOTAL	0.0	-0.6	-0.4	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Other - TOTAL	-1.2	-2.6	0.2	1.6	0.0	0.6	-1.2	0.0	-0.8	-1.4	-2.4	-1.4	0.4	-8.2
TOTAL	1.2	2.0	0.2	1.0	0.0	0.0	1.2	0.0	0.0	1.7	2.7	1.7	0.4	0.2
TOTAL TRAINS DELAYED	-87.6	-13.4	0.6	-1.0	9.0	-47.8	-18.4	-11.4	-30.8	-13.2	-33.4	-29.6	-40.8	-317.8
Total Metra/PSA Delays	-77.8	-13.0	0.6	-0.6	3.6	-42.2	-11.0	-10.4	-28.6	-4.2	-34.2	-25.2	-30.4	-273.4
Total Foreign Carrier Delays	-9.8	-0.4	0.0	-0.4	5.4	-5.6	-7.4	-1.0	-2.2	-9.0	0.8	-4.4	-10.4	-44.4
	7.0	J	5.0	J	٠	2.0		1.0		7.0			-0.1	

Data for current month is final (06/19/15) version from TOPS.

'Metra/PSA' refers to delays that may be directly or indirectly attributed to Metra or Metra Purchase of Service Agreement partners (BNSF and UP) in commuter rail operation.

'Foreign' refers to delays that may be directly or indirectly attributed to other carriers, including freight carriers, Amtrak, and NICTD, that affect Metra trains. 'Foreign' also includes delays attributable to BNSF and Union Pacific freight operations.

TABLE 9.a: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE

January - May 2015

			Electric			Mil	w				Uı	nion Pacif	ic	
CAUSE CATEGORY	BNSF	ML	BI	SC	HER	N	w	NCS	RI	SWS	N	NW	W	SYSTEM
Freight Interference - TOTAL	64	0	0	0	20	79	49	70	14	72	14	35	122	539
Freight Interference - Peak	27	0	0	0	20	23	9	30	2	21	5	19	28	184
Primary	13	0	0	0	20	16	3	20	2	15	2	9	18	118
Secondary	14	0	0	0	0	7	6	10	0	6	3	10	10	66
Freight Interference - Off-Peak	37	0	0	0	0	56	40	40	12	51	9	16	94	355
Primary	27	0	0	0	0	38	32	32	12	41	5	13	78	278
Secondary	10	0	0	0	0	18	8	8	0	10	4	3	16	77
Signal/Switch Failure - TOTAL	62	25	8	12	13	68	52	41	16	33	11	9	42	392
Signal/Switch Failure - Metra/PSA	43	25	8	12	1	55	43	24	15	5	11	7	42	291
Primary	26	15	4	10	1	31	24	14	13	3	8	4	23	176
Secondary	17	10	4	2	0	24	19	10	2	2	3	3	19	115
Signal/Switch Failure - Foreign	19	0	0	0	12	13	9	17	1	28	0	2	0	101
Primary Secondary	14 5	0	0	0	11 1	7 6	5 4	7 10	1	18 10	0	1	0	64 37
*	_	Ů												
Mechanical Failure - TOTAL	58	30	6	3	1	96	38	8	43	11	24	37	15	370
Mechanical Failure - Metra/PSA	57	24	3	2	1	77	38	8	43	11	24	37	15	340
Non-Locomotive Equipment Failure - Metra/PSA	13	24	3	2	0	10	11	1	11	3	4	5	6	93
Primary Secondary	4	8 16	3	1	0	4 6	<i>3</i> 8	1 0	5 6	2	2	4 1	5	39 54
Locomotive Failure - Metra/PSA	44	0	0	0	1	67	27	7	32	8	20	32	9	247
Primary	13	0	0	0	1	17	12	1	32 16	8 5	20 9	32 8	5	24 / 87
Secondary	31	0	0	0	0	50	15	6	16	3	11	24	4	160
Mechanical Failure - Foreign	1	6	3	1	0	19	0	0	0	0	0	0	0	30
Passenger Train Interference - TOTAL	12	4	0	1	3	21	1	9	0	3	1	0	6	61
Passenger Train Interference - Metra/PSA	2	2	0	1	0	9	1	9	0	2	1	0	6	33
Passenger Train Interference - Wetta 15A	10	2	0	0	3	12	0	0	0	1	0	0	0	28
Accident - TOTAL	26	33	10	9	0	17	32	3	3	0	25	40	6	204
Accident - TOTAL  Accident - Metra/PSA	26	33	10	9	0	17	30	3	1	0	25	40	6	204
Accident - Weila/F3A Accident - Foreign	0	0	0	0	0	0	2	0	2	0	0	0	0	4
Track Work - TOTAL	80	12	3	9	4	42	13	8	12	2	15	14	2	216
Track Work - Metra/PSA	62	12	3	9	4	42	13	8	12	2	15	14	2	198
Track Work - Foreign	18	0	0	0	0	0	0	0	0	0	0	0	0	198
Human Error - TOTAL	40	5	4	3		61	31	22	23	16	25	14	18	273
	-	5	4	-	11		25	14	-	-	-		18	
Human Error - Metra/PSA	35	_		3	2	50	-		23	5	20	6		204
Human Error - Foreign	5	29	0	0	9	11	9	8	0	11	5	8	6	69
Sick, Injured, Unruly Passenger - TOTAL	12		5	0	2			0	5	3	10	20	7	119
Sick, Injured, Unruly Passenger - Metra/PSA	12	29	5	0	2	17	9	0	5	3	10	20	7	119
Sick, Injured, Unruly Passenger - Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weather - TOTAL	142	147	43	27	3	58	62	15	43	16	55	77	72	760
Weather - Metra/PSA	141	147	43	27	3	47	61	15	43	15	55	77	70	744
Weather - Foreign	1	0	0	0	0	11	1	0	0	1	0	0	2	16
Passenger Loading - TOTAL	11	23	5	3	0	26	15	2	13	3	10	23	14	148
Lift Deployment - TOTAL	23	0	0	0	0	16	8	0	3	1	3	10	19	83
Obstruction/Debris - TOTAL	35	13	6	21	2	19	21	3	6	5	12	32	17	192
Catenary Failure - TOTAL	0	29	6	16	0	0	0	0	0	0	0	0	0	51
Other - TOTAL	43	7	2	3	0	7	3	4	7	14	3	16	12	121
TOTAL TRAINS DELAYED	608	357	98	107	59	527	334	185	188	179	208	327	352	3,529
Total Metra/PSA Delays	490	349	95	106	15	382	267	90	171	66	189	282	222	2,724
Total Foreign Carrier Delays	118	8	3	1	44	145	67	95	17	113	19	45	130	805

Data for current month is final (06/19/15) version from TOPS.

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<sup>&#</sup>x27;Metra/PSA' refers to delays that may be directly or indirectly attributed to Metra or Metra Purchase of Service Agreement partners (BNSF and UP) in commuter rail operation.

<sup>&#</sup>x27;Foreign' refers to delays that may be directly or indirectly attributed to other carriers, including freight carriers, Amtrak, and NICTD, that affect Metra trains. 'Foreign' also includes delays attributable to BNSF and Union Pacific freight operations.

TABLE 9.b: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE

January - May - Average Over Previous Five Years: 2010-2014

			Electric			Mi	lw				U	nion Pacif	fic	
CAUSE CATEGORY	BNSF	ML	BI	SC	HER	N	w	NCS	RI	sws	N	NW	w	SYSTEM
Freight Interference - TOTAL	101.0	0.2	0.2	0.0	18.8	71.2	61.2	73.6	27.4	64.2	10.8	20.0	91.4	540.0
Freight Interference - Peak	48.4	0.0	0.0	0.0	18.8	14.2	14.2	30.0	6.2	18.4	2.4	8.8	20.8	182.2
Primary	30.6	0.0	0.0	0.0	17.6	9.8	10.8	21.6	3.8	15.8	0.6	4.8	10.0	125.4
Secondary	17.8	0.0	0.0	0.0	1.2	4.4	3.4	8.4	2.4	2.6	1.8	4.0	10.8	56.8
Freight Interference - Off-Peak	52.6	0.2	0.2	0.0	0.0	57.0	47.0	43.6	21.2	45.8	8.4	11.2	70.6	357.8
Primary	45.2	0.0	0.0	0.0	0.0	39.6	34.8	37.0	19.2	37.2	5.6	8.8	59.6	287.0
Secondary	7.4	0.2	0.2	0.0	0.0	17.4	12.2	6.6	2.0	8.6	2.8	2.4	11.0	70.8
Signal/Switch Failure - TOTAL	87.6	36.2	14.8	10.2	11.0	105.4	61.6	36.0	46.6	41.8	30.6	34.4	41.2	557.4
Signal/Switch Failure - Metra/PSA	59.2	36.2	14.8	10.2	7.0	93.0	50.0	26.2	44.2	14.8	30.0	34.0	40.2	459.8
Primary	44.4	31.0	12.2	8.2	6.8	53.0	31.6	17.0	33.6	11.4	15.6	19.2	21.2	305.2
Secondary	14.8	5.2	2.6	2.0	0.2	40.0	18.4	9.2	10.6	3.4	14.4	14.8	19.0	154.6
Signal/Switch Failure - Foreign	28.4	0.0	0.0	0.0	4.0	12.4	11.6	9.8	2.4	27.0	0.6	0.4	1.0	97.6
Primary Secondary	25.2 3.2	0.0	0.0	0.0	3.6 0.4	10.0 2.4	9.2 2.4	5.2 4.6	1.0 1.4	20.0 7.0	0.6 0.0	0.4	1.0 0.0	76.2 21.4
Mechanical Failure - TOTAL	56.4	16.6	7.2	8.6	1.2	71.8	42.8	20.0	50.4	13.8	36.4	38.4	24.8	388.4
Mechanical Failure - Metra/PSA	56.2	15.2	7.2	8.6	1.2	71.2	42.6	20.0	50.0	13.8	36.4	38.4	24.6	385.4
Non-Locomotive Equipment Failure - Metra/PSA	15.6	15.2 6.4	7.2 2.6	8.6 3.2	0.6	9.2 3.0	10.4	2.4 0.8	10.0	5.8	9.0 2.8	6.6 2.4	6.8	107.4
Primary Secondary	5.4 10.2	8.8	2.6 4.6	5.4	0.4	6.2	4.4 6.0	1.6	5.6 4.4	1.8 4.0	6.2	4.2	4.2 2.6	43.0 64.4
Locomotive Failure - Metra/PSA	40.6	0.0	0.0	0.0	0.6	62.0	32.2	17.6	40.0	8.0	27.4	31.8	17.8	278.0
Primary	13.0	0.0	0.0	0.0	0.6	15.2	10.0	5.0	13.8	3.4	8.2	8.0	7.2	84.4
Secondary	27.6	0.0	0.0	0.0	0.0	46.8	22.2	12.6	26.2	4.6	19.2	23.8	10.6	193.6
Mechanical Failure - Foreign	0.2	1.4	0.0	0.0	0.0	0.6	0.2	0.0	0.4	0.0	0.0	0.0	0.2	3.0
Passenger Train Interference - TOTAL	8.4	6.0	2.2	3.6	3.2	41.6	8.4	5.4	8.6	4.0	9.2	5.8	7.8	114.2
Passenger Train Interference - Metra/PSA	0.4	2.8	1.6	2.8	0.2	26.2	7.2	5.4	6.4	0.6	9.2	5.6	7.6	76.0
Passenger Train Interference - Foreign	8.0	3.2	0.6	0.8	3.0	15.4	1.2	0.0	2.2	3.4	0.0	0.2	0.2	38.2
Accident - TOTAL	56.2	1.4	1.8	1.8	0.4	26.2	22.0	8.2	21.6	1.8	23.8	40.2	23.8	229.2
Accident - Metra/PSA	43.2	1.4	1.8	1.8	0.4	26.2	21.6	7.0	20.8	1.8	23.8	40.2	22.8	212.8
Accident - Foreign	13.0	0.0	0.0	0.0	0.0	0.0	0.4	1.2	0.8	0.0	0.0	0.0	1.0	16.4
Track Work - TOTAL	77.2	26.6	9.8	9.8	1.4	40.8	12.6	11.4	18.8	1.8	28.0	11.0	18.8	268.0
Track Work - Metra/PSA	77.0	26.6	9.8	9.8	1.4	40.6	12.4	10.8	18.8	1.6	28.0	11.0	18.8	266.6
Track Work - Foreign	0.2	0.0	0.0	0.0	0.0	0.2	0.2	0.6	0.0	0.2	0.0	0.0	0.0	1.4
Human Error - TOTAL	69.0	24.4	5.4	11.8	6.0	33.0	17.8	10.2	28.0	16.0	27.4	21.2	16.8	287.0
Human Error - Metra/PSA	47.4	21.6	5.2	10.8	1.4	18.2	9.4	2.6	27.4	4.2	24.2	17.2	9.8	199.4
Human Error - Foreign	21.6	2.8	0.2	1.0	4.6	14.8	8.4	7.6	0.6	11.8	3.2	4.0	7.0	87.6
Sick, Injured, Unruly Passenger - TOTAL	13.0	31.2	4.6	10.8	0.4	11.4	16.2	1.6	12.6	1.6	19.4	16.6	15.6	155.0
Sick, Injured, Unruly Passenger - Metra/PSA	12.4	31.2	4.6	10.8	0.4	11.4	16.2	1.6	12.0	1.6	19.4	16.6	15.6	154.0
Sick, Injured, Unruly Passenger - Foreign	0.6	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	1.0
Weather - TOTAL	135.0	72.6	20.0	31.2	4.2	86.8	72.8	24.4	100.4	20.6	77.6	78.0	66.4	790.0
Weather - Metra/PSA	134.0	72.6	20.0	31.2	3.8	85.8	72.2	24.4	100.4	19.0	77.6	78.0	66.2	784.6
Weather - Foreign	1.0	0.0	0.0	0.0	0.4	1.0	0.6	0.4	0.2	1.6	0.0	0.0	0.2	5.4
Passenger Loading - TOTAL	23.4	48.4	11.0	17.2	0.4	22.8	18.4	0.4	48.4	0.6	44.2	23.2	25.0	283.0
Lift Deployment - TOTAL	11.0	0.2	0.0	0.2	0.2	11.4	12.2	1.0	21.4	0.6	9.8	6.2	25.0 14.6	283.0 88.4
Obstruction/Debris - TOTAL	24.0	10.6	3.0	12.4	1.8	11.4	12.2	2.4	19.2	0.4 8.4	9.8	24.0	20.0	88.4 169.6
	0.0	15.2	3.4	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	22.4
Catenary Failure - TOTAL												0.2 9.8		
Other - TOTAL	16.0	16.8	2.8	5.2	0.0	9.6	10.8	2.0	12.2	6.4	18.4	9.8	23.2	133.2
TOTAL TRAINS DELAYED	678.2	306.4	86.2	126.4	48.6	546.2	371.8	196.4	415.6	181.4	350.2	329.0	389.4	4,025.8
Total Metra/PSA Delays	504.2	298.8	85.2	124.6	17.8	430.6	288.0	103.2	381.2	73.2	335.6	304.4	288.4	3,235.2
Total Foreign Carrier Delays	174.0	7.6	1.0	1.8	30.8	115.6	83.8	93.2	34.4	108.2	14.6	24.6	101.0	790.6
10th 1 0101gii Chilloi Dolajo	171.0	7.0	1.0	1.0	30.0	115.0	05.0	75.2	31.7	100.2	11.0	21.0	101.0	7,70.0

Data for latest month is final (06/16/14) version from TOPS.

<sup>&#</sup>x27;Metra/PSA' refers to delays that may be directly or indirectly attributed to Metra or Metra Purchase of Service Agreement partners (BNSF and UP) in commuter rail operation.

<sup>&#</sup>x27;Foreign' refers to delays that may be directly or indirectly attributed to other carriers, including freight carriers, Amtrak, and NICTD, that affect Metra trains. 'Foreign' also includes delays attributable to BNSF and Union Pacific freight operations.

TABLE 9.c: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE

January - May 2015 Divergence From January - May Average Over Previous Five Years

			Electric			Mi	lw				Uı	nion Pacif	ic	
CAUSE CATEGORY	BNSF	ML	BI	SC	HER	N	w	NCS	RI	SWS	N	NW	W	SYSTEM
Freight Interference - TOTAL	-37.0	-0.2	-0.2	0.0	1.2	7.8	-12.2	-3.6	-13.4	7.8	3.2	15.0	30.6	-1.0
Freight Interference - Peak	-21.4	0.0	0.0	0.0	1.2	8.8	-5.2	0.0	-4.2	2.6	2.6	10.2	7.2	1.8
Primary	-17.6	0.0	0.0	0.0	2.4	6.2	-7.8	-1.6	-1.8	-0.8	1.4	4.2	8.0	-7.4
Secondary	-3.8	0.0	0.0	0.0	-1.2	2.6	2.6	1.6	-2.4	3.4	1.2	6.0	-0.8	9.2
Freight Interference - Off-Peak	-15.6	-0.2	-0.2	0.0	0.0	-1.0	-7.0	-3.6	-9.2	5.2	0.6	4.8	23.4	-2.8
Primary	-18.2	0.0	0.0	0.0	0.0	-1.6	-2.8	-5.0	-7.2	3.8	-0.6	4.2	18.4	-9.0
Secondary	2.6	-0.2	-0.2	0.0	0.0	0.6	-4.2	1.4	-2.0	1.4	1.2	0.6	5.0	6.2
Signal/Switch Failure - TOTAL	-25.6	-11.2	-6.8	1.8	2.0	-37.4	-9.6	5.0	-30.6	-8.8	-19.6	-25.4	0.8	-165.4
Signal/Switch Failure - Metra/PSA	-16.2	-11.2	-6.8	1.8	-6.0	-38.0	-7.0	-2.2	-29.2	-9.8	-19.0	-27.0	1.8	-168.8
Primary	-18.4	-16.0	-8.2	1.8 0.0	-5.8	-22.0 -16.0	-7.6	-3.0 0.8	-20.6 -8.6	-8.4	-7.6	-15.2 -11.8	1.8 0.0	-129.2 -39.6
Secondary	2.2	4.8	1.4		-0.2		0.6			-1.4	-11.4			
Signal/Switch Failure - Foreign	-9.4	0.0	0.0	0.0	8.0	0.6	-2.6	7.2	-1.4	1.0	-0.6	1.6	-1.0	3.4
Primary Secondary	-11.2 1.8	0.0	0.0	0.0	7.4 0.6	-3.0 3.6	-4.2 1.6	1.8 5.4	0.0 -1.4	-2.0 3.0	-0.6 0.0	0.6 1.0	-1.0 0.0	-12.2 15.6
Mechanical Failure - TOTAL	1.6	13.4	-1.2	-5.6	-0.2	24.2	-4.8	-12.0	-7.4	-2.8	-12.4	-1.4	-9.8	-18.4
Mechanical Failure - TOTAL  Mechanical Failure - Metra/PSA	0.8	8.8	-4.2	-5.6 -6.6	-0.2	5.8	-4.8 -4.6	-12.0	-7.4	-2.8 -2.8	-12.4	-1.4	-9.8 -9.6	-18.4 -45.4
Non-Locomotive Equipment Failure - Metra/PSA	-2.6	8.8	-4.2	-6.6	-0.2	0.8	-4.6	-12.0	1.0	-2.8	-12.4	-1.4	-9.6	-43.4
Primary	-2.0 -1.4	1.6	-4.2 -2.6	-0.0	-0.6 -0.4	1.0	-1.4	0.2	-0.6	-2.8 0.2	-3.0 -0.8	-1.6 1.6	-0.8	-14.4 -4.0
Secondary	-1.2	7.2	-1.6	-4.4	-0.4	-0.2	2.0	-1.6	1.6	-3.0	-4.2	-3.2	-1.6	-10.4
Locomotive Failure - Metra/PSA	3.4	0.0	0.0	0.0	0.4	5.0	-5.2	-10.6	-8.0	0.0	-7.4	0.2	-8.8	-31.0
Primary	0.0	0.0	0.0	0.0	0.4	1.8	2.0	-4.0	2.2	1.6	0.8	0.0	-2.2	2.6
Secondary	3.4	0.0	0.0	0.0	0.0	3.2	-7.2	-6.6	-10.2	-1.6	-8.2	0.2	-6.6	-33.6
Mechanical Failure - Foreign	0.8	4.6	3.0	1.0	0.0	18.4	-0.2	0.0	-0.4	0.0	0.0	0.0	-0.2	27.0
Passenger Train Interference - TOTAL	3.6	-2.0	-2.2	-2.6	-0.2	-20.6	-7.4	3.6	-8.6	-1.0	-8.2	-5.8	-1.8	-53.2
Passenger Train Interference - Metra/PSA	1.6	-0.8	-1.6	-1.8	-0.2	-17.2	-6.2	3.6	-6.4	1.4	-8.2	-5.6	-1.6	-43.0
Passenger Train Interference - Foreign	2.0	-1.2	-0.6	-0.8	0.0	-3.4	-1.2	0.0	-2.2	-2.4	0.0	-0.2	-0.2	-10.2
Accident - TOTAL	-30.2	31.6	8.2	7.2	-0.4	-9.2	10.0	-5.2	-18.6	-1.8	1.2	-0.2	-17.8	-25.2
Accident - Metra/PSA	-17.2	31.6	8.2	7.2	-0.4	-9.2	8.4	-4.0	-19.8	-1.8	1.2	-0.2	-16.8	-12.8
Accident - Foreign	-13.0	0.0	0.0	0.0	0.0	0.0	1.6	-1.2	1.2	0.0	0.0	0.0	-1.0	-12.4
Track Work - TOTAL	2.8	-14.6	-6.8	-0.8	2.6	1.2	0.4	-3.4	-6.8	0.2	-13.0	3.0	-16.8	-52.0
Track Work - Metra/PSA	-15.0	-14.6	-6.8	-0.8	2.6	1.4	0.6	-2.8	-6.8	0.4	-13.0	3.0	-16.8	-68.6
Track Work - Foreign	17.8	0.0	0.0	0.0	0.0	-0.2	-0.2	-0.6	0.0	-0.2	0.0	0.0	0.0	16.6
Human Error - TOTAL	-29.0	-19.4	-1.4	-8.8	5.0	28.0	13.2	11.8	-5.0	0.0	-2.4	-7.2	1.2	-14.0
Human Error - Metra/PSA	-12.4	-16.6	-1.2	-7.8	0.6	31.8	15.6	11.4	-4.4	0.8	-4.2	-11.2	2.2	4.6
Human Error - Foreign	-16.6	-2.8	-0.2	-1.0	4.4	-3.8	-2.4	0.4	-0.6	-0.8	1.8	4.0	-1.0	-18.6
Sick, Injured, Unruly Passenger - TOTAL	-1.0	-2.2	0.4	-10.8	1.6	5.6	-7.2	-1.6	-7.6	1.4	-9.4	3.4	-8.6	-36.0
Sick, Injured, Unruly Passenger - Metra/PSA	-0.4	-2.2	0.4	-10.8	1.6	5.6	-7.2	-1.6	-7.2	1.4	-9.4	3.4	-8.6	-35.0
Sick, Injured, Unruly Passenger - Foreign	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	0.0	0.0	0.0	0.0	-1.0
Weather - TOTAL	7.0	74.4	23.0	-4.2	-1.2	-28.8	-10.8	-9.4	-57.4	-4.6	-22.6	-1.0	5.6	-30.0
Weather - Metra/PSA	7.0	74.4	23.0	-4.2	-0.8	-38.8	-11.2	-9.0	-57.2	-4.0	-22.6	-1.0	3.8	-40.6
Weather - Foreign	0.0	0.0	0.0	0.0	-0.4	10.0	0.4	-0.4	-0.2	-0.6	0.0	0.0	1.8	10.6
Passenger Loading - TOTAL	-12.4	-25.4	-6.0	-14.2	-0.2	3.2	-3.4	1.8	-35.4	2.4	-34.2	-0.2	-11.0	-135.0
Lift Deployment - TOTAL	12.0	-0.2	0.0	-0.2	0.0	4.6	-4.2	-1.0	-18.4	0.6	-6.8	3.8	4.4	-5.4
Obstruction/Debris - TOTAL	11.0	2.4	3.0	8.6	0.2	4.8	6.0	0.6	-13.2	-3.4	-2.6	8.0	-3.0	22.4
Catenary Failure - TOTAL	0.0	13.8	2.6	12.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	0.0	28.6
Other - TOTAL	27.0	-9.8	-0.8	-2.2	0.0	-2.6	-7.8	2.0	-5.2	7.6	-15.4	6.2	-11.2	-12.2
TOTAL TRAINS DELAYED	-70.2	50.6	11.8	-19.4	10.4	-19.2	-37.8	-11.4	-227.6	-2.4	-142.2	-2.0	-37.4	-496.8
Total Metra/PSA Delays	-14.2	50.2	9.8	-18.6	-2.8	-48.6	-21.0	-13.2	-210.2	-7.2	-146.6	-22.4	-66.4	-511.2
Total Foreign Carrier Delays	-56.0	0.4	2.0	-0.8	13.2	29.4	-16.8	1.8	-17.4	4.8	4.4	20.4	29.0	14.4

Data for current month is final (06/19/15) version from TOPS.

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<sup>&#</sup>x27;Metra/PSA' refers to delays that may be directly or indirectly attributed to Metra or Metra Purchase of Service Agreement partners (BNSF and UP) in commuter rail operation.

<sup>&#</sup>x27;Foreign' refers to delays that may be directly or indirectly attributed to other carriers, including freight carriers, Amtrak, and NICTD, that affect Metra trains. 'Foreign' also includes delays attributable to BNSF and Union Pacific freight operations.

TABLE 10.a: FREQUENCY OF TRAIN DELAYS BY CAUSE & MONTH

2015

CAUSE CATEGORY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan -	May
Freight Interference - TOTAL	122	158	113	87	59								539	15.3%
Freight Interference - Peak	35	48	42	36	23								184	5.2%
Primary	24	33	24	24	13								118	3.3%
Secondary	11	15	18	12	10								66	1.9%
Freight Interference - Off-Peak	87	110	71	51	36								355	10.1%
Primary	63	86	59	42	28								278	7.9%
Secondary	24	24	12	9	8								77	2.2%
Signal/Switch Failure - TOTAL	93	126	35	69	69								392	11.1%
Signal/Switch Failure - Metra/PSA	73	83	28	53	54								291	8.2%
Primary	38	54	25	29	30								176	5.0%
Secondary	35	29	3	24	24								115	3.3%
Signal/Switch Failure - Foreign	20	43	7	16	15								101	2.9%
Primary Secondary	17 3	23 20	5 2	12 4	7 8								64 37	1.8% 1.0%
-														
Mechanical Failure - TOTAL	82	102	69	66	51								370	10.5%
Mechanical Failure - Metra/PSA	71	93	69	56	51								340	9.6%
Non-Locomotive Equipment Failure - Metra/PSA	27	19	22	17	8								93	2.6%
Primary Secondary	10 17	6 13	10 12	7 10	6 2								39 54	1.1% 1.5%
-														
Locomotive Failure - Metra/PSA  Primary	44	74	47	39	43								247	7.0%
Primary Secondary	16 28	25 49	14 33	17 22	15 28								87 160	2.5% 4.5%
Mechanical Failure - Foreign	11	9	0	10	0								30	0.9%
Passenger Train Interference - TOTAL	13	19	6	7	16								61	1.7%
5		19	5	4	4									
Passenger Train Interference - Metra/PSA	6 7	14 5		3									33 28	0.9%
Passenger Train Interference - Foreign			1		12									0.8%
Accident - TOTAL	29	35	60	60	20								204	5.8%
Accident - Metra/PSA	28	34	60	60	18								200	5.7%
Accident - Foreign	1	1	0	0	2								4	0.1%
Track Work - TOTAL	38	50	19	52	57								216	6.1%
Track Work - Metra/PSA	38	32	19	52	57								198	5.6%
Track Work - Foreign	0	18	0	0	0								18	0.5%
Human Error - TOTAL	32	67	103	31	40								273	7.7%
Human Error - Metra/PSA	24	45	90	17	28								204	5.8%
Human Error - Foreign	8	22	13	14	12								69	2.0%
Sick, Injured, Unruly Passenger - TOTAL	21	25	20	29	24								119	3.4%
Sick, Injured, Unruly Passenger - Metra/PSA	21	25	20	29	24								119	3.4%
Sick, Injured, Unruly Passenger - Foreign	0	0	0	0	0								0	0.0%
Weather - TOTAL	335	395	17	10	3								760	21.5%
Weather - Metra/PSA	333	381	17	10	3								744	21.1%
Weather - Foreign	2	14	0	0	0								16	0.5%
Passenger Loading - TOTAL	20	21	42	21	44								148	4.2%
Lift Deployment - TOTAL	22	23	20	9	9								83	2.4%
Obstruction/Debris - TOTAL	31	71	8	34	48								192	5.4%
Catenary Failure - TOTAL	4	34	10	0	3								51	1.4%
Other - TOTAL	23	59	10	10	19								121	3.4%
TOTAL TRAINS DELAYED	865	1,185	532	485	462								3,529	100.0%
Total Metra/PSA Delays	694	915	398	355	362								2,724	77.2%
Total Foreign Carrier Delays	171	270	134	130	100								805	22.8%
Total Poleigii Carrier Delays	1/1	210	134	130	100								803	44.6%

Data for current month is final (06/19/15) version from TOPS.

 $P: \label{eq:continuous} P: \label{eq:continuous} P: \label{eq:continuous} P: \label{eq:continuous} P: \label{eq:continuous} All Months \\ 06/19/2015$ 

Metra/PSA' refers to delays that may be directly or indirectly attributed to Metra or Metra Purchase of Service Agreement partners (BNSF and UP) in commuter rail operation.

Foreign' refers to delays that may be directly or indirectly attributed to other carriers, including freight carriers, Amtrak, and NICTD, that affect Metra trains. 'Foreign' also includes delays attributable to BNSF and Union Pacific freight operations.

TABLE 10.b: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE

Freight Interference - Peak   103   92   60   52   87   66   34   43   25   54   30   22   394	AUSE CATEGORY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan -	- May
Frimary   Secondary   15   39   30   27   62   45   21   20   22   23   21   15   260	eight Interference - TOTAL	207	249	159	140	177	191	137	153	100	167	80	75	932	14.2%
Secondary	Freight Interference - Peak	103	92	60	52	87	66	34	43	25	54	30	22	394	6.0%
Freight Interference - Off-Peak   104   157   99   88   90   125   103   110   75   113   50   53   538	*														4.0%
Primary   12															2.0%
Signal/Switch Failure - TOTAL   190   181   112   47   121   155   87   66   89   82   69   69   651							-								8.2%
Signal/Switch Failure - TOTAL   190   181   112   47   121   155   87   66   89   82   69   69   651															5.9%
Signal/Switch Failure - Metra/PSA	•														2.2%
Primary   Prim	e e														9.9%
Scingal/Switch Failure - Foreign															8.0%
Signal/Switch Failure - Foreign															4.4% 3.6%
Primary															1.9%
Secondary   16   17   2   1   11   3   8   6   20   4   5   5   47	č –						-	-							1.9%
Mechanical Failure - TOTAL         189         174         128         48         113         109         98         51         62         141         56         74         652           Mechanical Failure - Metra/PSA         188         169         128         46         107         109         98         51         58         141         56         70         638           Non-Locomotive Equipment Failure - Metra/PSA         92         48         38         15         15         33         43         19         28         25         29         18         208           Primary Secondary         63         29         29         7         8         20         31         8         19         17         16         9         136           Locomotive Equipment Failure - Metra/PSA         96         121         90         31         92         76         55         32         30         116         27         52         430           Locomotive Equipment Failure - Metra/PSA         96         121         90         31         92         76         55         32         30         116         27         52         430           Locomotive Equipment Failu	*														0.7%
Mechanical Failure - Metra/PSA   188   169   128   46   107   109   98   51   58   141   56   70   638	•	189	174	128	48	113	109	98	51	62	141	56	74	652	9.9%
Non-Locomotive Equipment Failure - Metra/PSA   92   48   38   15   15   33   43   19   28   25   29   18   208     Primary   29   19   9   8   7   13   12   11   9   8   13   9   72     Cocomotive Failure - Metra/PSA   96   121   90   31   92   76   55   32   30   116   27   52   430     Primary   25   33   28   12   17   24   19   16   13   30   12   23   115     Mechanical Failure - Foreign   1   5   0   2   6   0   0   0   0   4   0   0   0   4   14     Passenger Train Interference - TOTAL   38   58   22   8   6   14   9   9   7   18   10   46   132     Passenger Train Interference - Hetra/PSA   29   45   15   5   4   6   5   5   3   3   11   6   26   98     Passenger Train Interference - Foreign   9   13   7   3   2   8   4   4   4   7   4   20   34     Accident - TOTAL   116   117   39   11   81   42   39   87   10   24   35   84     Accident - Hetra/PSA   88   75   29   10   80   33   27   87   9   20   28   67   282     Accident - Foreign   28   42   10   1   1   9   12   0   1   4   7   17   82     Track Work - TOTAL   42   33   37   78   208   237   58   46   61   72   56   54   398     Track Work - Foreign   96   84   53   81   46   72   75   39   59   63   23   44     Human Error - Metra/PSA   64   53   22   63   34   45   55   28   39   34   12   7   236     Human Error - TOTAL   27   38   31   20   36   38   39   25   24   31   20   34   152     Sick, Injured, Unruly Passenger - Metra/PSA   27   38   31   20   36   38   39   25   24   31   20   34   152     Sick, Injured, Unruly Passenger - Metra/PSA   27   38   31   20   36   38   39   25   24   31   20   34   152     Sick, Injured, Unruly Passenger - Metra/PSA   27   38   31   20   36   38   39   25   24   31   20   34   152     Sick, Injured, Unruly Passenger - Metra/PSA   27   38   31   20   36   38   39   25   24   31   20   34   152     Sick, Injured, Unruly Passenger - Metra/PSA   27   38   31   20   36   38   39   25   24   31   20   34   152     Accident - Metra/PSA   27   38   31   20   36   38   39   25   24   31   20   34   152     Ac										-					9.7%
Primary   Secondary   Second				-											3.2%
Secondary   G3   29   29   7   8   20   31   8   19   17   16   9   136		-						_							1.1%
Primary Secondary   25   33   28   12   17   24   19   16   13   30   12   23   115															2.1%
Secondary   71   88   62   19   75   52   36   16   17   86   15   29   315     Mechanical Failure - Foreign   1   5   0   2   6   0   0   0   0   4   0   0   0   4   14     Passenger Train Interference - TOTAL   38   58   22   8   6   14   9   9   7   18   10   46   132     Passenger Train Interference - Metra/PSA   29   45   15   5   4   6   5   5   3   11   6   26   98     Passenger Train Interference - Foreign   9   13   7   3   2   8   4   4   4   7   4   20   34     Accident - TOTAL   116   117   39   11   81   42   39   87   10   24   35   84   364     Accident - Metra/PSA   88   75   29   10   80   33   27   87   9   20   28   67   282     Accident - Foreign   28   42   10   1   1   9   12   0   1   4   7   17   82     Track Work - TOTAL   42   33   37   78   208   237   58   46   61   72   56   54   398     Track Work - Metra/PSA   42   33   37   78   208   237   58   46   59   72   56   54   398     Track Work - Foreign   0   0   0   0   0   0   0   0   0	Locomotive Failure - Metra/PSA	96	121	90	31	92	76	55	32	30	116	27	52	430	6.5%
Mechanical Failure - Foreign         1         5         0         2         6         0         0         0         4         0         0         4         14           Passenger Train Interference - TOTAL         38         58         22         8         6         14         9         9         7         18         10         46         132           Passenger Train Interference - Metra/PSA         29         45         15         5         4         6         5         5         3         11         6         26         98           Passenger Train Interference - Foreign         9         13         7         3         2         8         4         4         4         7         4         20         34           Accident - TOTAL         116         117         39         11         81         42         39         87         10         24         35         84         364           Accident - Metra/PSA         88         75         29         10         80         33         27         87         9         20         28         67         282           Accident - Foreign         28         42         10         <	Primary														1.7%
Passenger Train Interference - TOTAL   38   58   22   8   6   14   9   9   7   18   10   46   132     Passenger Train Interference - Metra/PSA   29   45   15   5   4   6   5   5   3   11   6   26   98     Passenger Train Interference - Foreign   9   13   7   3   2   8   4   4   4   7   4   20   34     Accident - TOTAL   116   117   39   11   81   42   39   87   10   24   35   84   364     Accident - Metra/PSA   88   75   29   10   80   33   27   87   9   20   28   67   282     Accident - Foreign   28   42   10   1   1   9   12   0   1   4   7   17   82     Track Work - TOTAL   42   33   37   78   208   237   58   46   61   72   56   54   398     Track Work - Metra/PSA   42   33   37   78   208   237   58   46   59   72   56   54   398     Track Work - Foreign   0   0   0   0   0   0   0   0   0	Secondary	71	88	62	19	75	52	36	16	17	86	15	29	315	4.8%
Passenger Train Interference - Metra/PSA         29         45         15         5         4         6         5         5         3         11         6         26         98           Passenger Train Interference - Foreign         9         13         7         3         2         8         4         4         4         7         4         20         34           Accident - TOTAL         116         117         39         11         81         42         39         87         10         24         35         84         364           Accident - Metra/PSA         88         75         29         10         80         33         27         87         9         20         28         67         282           Accident - Foreign         28         42         10         1         1         9         12         0         1         4         7         17         82           Track Work - TOTAL         42         33         37         78         208         237         58         46         61         72         56         54         398           Track Work - Metra/PSA         42         33         37         78	Mechanical Failure - Foreign	1	5	0	2	6	0	0	0	4	0	0	4	14	0.2%
Passenger Train Interference - Foreign         9         13         7         3         2         8         4         4         4         7         4         20         34           Accident - TOTAL         116         117         39         11         81         42         39         87         10         24         35         84         364           Accident - Metra/PSA         88         75         29         10         80         33         27         87         9         20         28         67         282           Accident - Foreign         28         42         10         1         1         9         12         0         1         4         7         17         82           Track Work - TOTAL         42         33         37         78         208         237         58         46         61         72         56         54         398           Track Work - Metra/PSA         42         33         37         78         208         237         58         46         59         72         56         54         398           Track Work - Foreign         0         0         0         0         0 </td <td>ssenger Train Interference - TOTAL</td> <td>38</td> <td>58</td> <td>22</td> <td>8</td> <td>6</td> <td>14</td> <td>9</td> <td>9</td> <td>7</td> <td>18</td> <td>10</td> <td>46</td> <td>132</td> <td>2.0%</td>	ssenger Train Interference - TOTAL	38	58	22	8	6	14	9	9	7	18	10	46	132	2.0%
Accident - TOTAL         116         117         39         11         81         42         39         87         10         24         35         84         364           Accident - Metra/PSA         88         75         29         10         80         33         27         87         9         20         28         67         282           Accident - Foreign         28         42         10         1         1         9         12         0         1         4         7         17         82           Track Work - TOTAL         42         33         37         78         208         237         58         46         61         72         56         54         398           Track Work - Metra/PSA         42         33         37         78         208         237         58         46         59         72         56         54         398           Track Work - Metra/PSA         42         33         37         78         208         237         58         46         59         72         56         54         398           Track Work - Foreign         0         0         0         0         0	Passenger Train Interference - Metra/PSA	29	45	15	5	-	6	5	5	3	11	6	26	98	1.5%
Accident - Metra/PSA         88         75         29         10         80         33         27         87         9         20         28         67         282           Accident - Foreign         28         42         10         1         1         9         12         0         1         4         7         17         82           Track Work - TOTAL         42         33         37         78         208         237         58         46         61         72         56         54         398           Track Work - Metra/PSA         42         33         37         78         208         237         58         46         61         72         56         54         398           Track Work - Foreign         0 <t< td=""><td>Passenger Train Interference - Foreign</td><td>9</td><td>13</td><td>7</td><td>3</td><td>2</td><td>8</td><td>4</td><td>4</td><td>4</td><td>7</td><td>4</td><td>20</td><td>34</td><td>0.5%</td></t<>	Passenger Train Interference - Foreign	9	13	7	3	2	8	4	4	4	7	4	20	34	0.5%
Accident - Foreign   28   42   10   1   1   9   12   0   1   4   7   17   82	ecident - TOTAL	116	117	39	11	81	42	39	87	10	24	35	84	364	5.5%
Track Work - TOTAL         42         33         37         78         208         237         58         46         61         72         56         54         398           Track Work - Metra/PSA         42         33         37         78         208         237         58         46         59         72         56         54         398           Track Work - Foreign         0	Accident - Metra/PSA	88	75	29	10	80	33	27	87	9	20	28	67	282	4.3%
Track Work - Metra/PSA         42         33         37         78         208         237         58         46         59         72         56         54         398           Track Work - Foreign         0	Accident - Foreign	28	42	10	1	1	9	12	0	1	4	7	17	82	1.2%
Track Work - Foreign         0	ack Work - TOTAL	42	33	37	78	208	237	58	46	61	72	56	54	398	6.1%
Human Error - TOTAL         96         84         53         81         46         72         75         39         59         63         23         44         360           Human Error - Metra/PSA         64         53         22         63         34         45         55         28         39         34         12         7         236           Human Error - Foreign         32         31         31         18         12         27         20         11         20         29         11         37         124           Sick, Injured, Unruly Passenger - TOTAL         27         38         31         23         36         38         39         25         24         31         20         34         155           Sick, Injured, Unruly Passenger - Metra/PSA         27         38         31         20         36         38         39         25         24         31         20         34         152	Γrack Work - Metra/PSA	42	33	37	78	208	237	58	46	59	72	56	54	398	6.1%
Human Error - Metra/PSA     64     53     22     63     34     45     55     28     39     34     12     7     236       Human Error - Foreign     32     31     31     18     12     27     20     11     20     29     11     37     124       Sick, Injured, Unruly Passenger - TOTAL     27     38     31     23     36     38     39     25     24     31     20     34     155       Sick, Injured, Unruly Passenger - Metra/PSA     27     38     31     20     36     38     39     25     24     31     20     34     152	Гrack Work - Foreign	0	0	0	0	0	0	0	0	2	0	0	0	0	0.0%
Human Error - Foreign         32         31         31         18         12         27         20         11         20         29         11         37         124           Sick, Injured, Unruly Passenger - TOTAL         27         38         31         23         36         38         39         25         24         31         20         34         155           Sick, Injured, Unruly Passenger - Metra/PSA         27         38         31         20         36         38         39         25         24         31         20         34         152	aman Error - TOTAL	96	84	53	81	46	72	75	39	59	63	23	44	360	5.5%
Sick, Injured, Unruly Passenger - TOTAL         27         38         31         23         36         38         39         25         24         31         20         34         155           Sick, Injured, Unruly Passenger - Metra/PSA         27         38         31         20         36         38         39         25         24         31         20         34         152	Human Error - Metra/PSA	64	53	22	63	34	45	55	28	39	34	12	7	236	3.6%
Sick, Injured, Unruly Passenger - Metra/PSA         27         38         31         20         36         38         39         25         24         31         20         34         152	Human Error - Foreign	32	31	31	18	12	27	20	11	20	29	11	37	124	1.9%
	ck, Injured, Unruly Passenger - TOTAL	27	38	31	23	36	38	39	25	24	31	20	34	155	2.4%
	Sick, Injured, Unruly Passenger - Metra/PSA	. 27	38	31	20	36	38	39	25	24	31	20	34	152	2.3%
**************************************	Sick, Injured, Unruly Passenger - Foreign	0	0	0	3	0	0	0	0	0	0	0	0	3	0.0%
Weather - TOTAL 1,431 487 123 6 36 67 25 88 32 57 22 2 2,083 3	eather - TOTAL	1,431	487	123	6	36	67	25	88	32	57	22	2	2,083	31.7%
Weather - Metra/PSA         1,427         483         123         6         36         67         25         88         32         57         22         2         2,075	Weather - Metra/PSA	1,427	483	123	6	36	67	25	88	32	57	22	2	2,075	31.5%
Weather - Foreign   4 4 0 0 0 0 0 0 0 0 0 0 8	Weather - Foreign	4	4	0	0	0	0	0	0	0	0	0	0	8	0.1%
Passenger Loading - TOTAL 30 75 89 29 47 145 134 101 16 14 16 64 270	ssenger Loading - TOTAL	30	75	89	29	47	145	134	101	16	14	16	64	270	4.1%
Lift Deployment - TOTAL 28 41 13 10 11 19 11 38 13 6 8 16 103	ft Deployment - TOTAL	28	41	13	10	11	19	11	38	13	6	8	16	103	1.6%
Obstruction/Debris - TOTAL 85 88 32 44 23 49 36 10 35 66 57 25 272	ostruction/Debris - TOTAL	85	88	32	44	23	49	36	10	35	66	57	25	272	4.1%
Catenary Failure - TOTAL 0 32 9 3 5 5 14 2 0 0 2 0 49	atenary Failure - TOTAL	0	32	9	3	5	5	14	2	0	0	2	0	49	0.7%
Other - TOTAL 31 45 32 21 27 19 11 19 25 6 32 16 156	ther - TOTAL	31	45	32	21	27	19	11	19	25	6	32	16	156	2.4%
TOTAL TRAINS DELAYED 2,510 1,702 879 549 937 1,162 773 734 533 747 486 603 6,577 10	OTAL TRAINS DELAYED	2,510	1,702	879	549	937	1,162	773	734	533	747	486	603	6,577	100.0%
Total Metra/PSA Delays 2,189 1,321 658 379 707 917 581 550 369 526 360 438 5,254	Γotal Metra/PSA Delays	2.189	1.321	658	379	707	917	581	550	369	526	360	438	5,254	79.9%
Total Foreign Carrier Delays 321 381 221 170 230 245 192 184 164 221 126 165 1,323		,	- /											,	20.1%

Data for latest month is final (01/20/15) version from TOPS.

06/19/2015

'Metra/PSA' refers to delays that may be directly or indirectly attributed to Metra or Metra Purchase of Service Agreement partners (BNSF and UP) in commuter rail operation.

Foreign' refers to delays that may be directly or indirectly attributed to other carriers, including freight carriers, Amtrak, and NICTD, that affect Metra trains. 'Foreign' also includes delays attributable to BNSF and Union Pacific freight operations.

TABLE 10.c: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE

2015 Divergence From 2014

Freight Interference - FOTAL   SS   -91   -46   -33   -118   -39   -318   -30   -38   -39   -36   -38   -39   -36   -39   -38   -39   -38   -39   -38   -39   -38   -39   -38   -39   -38   -39	CAUSE CATEGORY	Jan	Feb	Mar		May	Jun	Jul	Ana	Con	Oct	Nov	Dec	Ion	Mor
Freight Interference - Peak   68					Apr		Jun	Jui	Aug	Sep	Oct	NOV	Dec		
Primary   64   20   64   32   45   35   45   45   45   45   45   45	e e			-											
Secondary				-											
Freight Interference - Off-Peak															
Primary   Secondary   Second															
Secondary   Seco															
Signal/Switch Failure - TOTAL   997   -55   -77   22   -52   -239   1.2%															
Signal Switch Failure - Metra/PSA         -77         -61         -70         9         -35         224         0.3%         15         0.9%         15         2.9%         15         2.9%         15         6.0%         35         3.9%         1         -27         9.1%         5.0%         -3.9%	*														
Primary															
Secondary   39   32   31   8   8   9   34   9   4.5   5.0   9.8   9.5   9.8															
Signal/Switch Failure - Foreign															
Primary   1-3   3   7   10   1-14   1-15   0.05%   1-16   0.25%	*														
Secondary   1-10   3   3   0   3   3   3   3   4   2-10															
Mechanical Failure - TOTAL         107         -72         59         18         -62         -282         0.6%           Mechanical Failure - Metra PSA         -117         -76         -59         10         -56         -298         -0.1%           Mon-Locomotive Equipment Failure - Metra PSA         -65         -29         -16         2         -7         -115         -0.5%         -19         -33         -0.0%         -28         -2.0%         -33         -0.0%         -22         -2.0%         -33         -0.0%         -32         -2.0%         -33         -0.0%         -32         -2.0%         -33         -0.0%         -32         -2.0%         -33         -0.0%         -2.2         -2.0%         -33         -0.0%         -2.2         -2.0         -2.0%         -2.0         -3.3%         -0.0         -2.0 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>															
Mechanical Failure - Metra/PSA		-107	-72.	-59		-62								-282	
Non-Locomotive Equipment Failure - Metra/PSA															
Primary															
Secondary															
Primary Secondary         43         39         24         5         22         3         47         28         0.7% Secondary         4.3         39         29         3         47         28         0.2% O.3%         0.3%         Mechanical Failure - Foreign         10         4         0         8         -6         0         16         0.6%         9         2.3%         0.6         0         10         0.3%         0.6         0.6%         0.6%         0.6%         0.6%         0.6%         0.6%         0.6%         0.6%         0.6%         0.0															-0.5%
Primary Secondary         43         39         24         5         22         3         47         28         0.7% Secondary         4.3         39         29         3         47         28         0.2% O.3%         0.3%         Mechanical Failure - Foreign         10         4         0         8         -6         0         16         0.6%         9         2.3%         0.6         0         10         0.3%         0.6         0.6%         0.6%         0.6%         0.6%         0.6%         0.6%         0.6%         0.6%         0.6%         0.0	Locomotive Failure - Metra/PSA	-52	-47	-43	8	-49								-183	0.5%
Mechanical Failure - Foreign															0.7%
Passenger Train Interference - TOTAL Passenger Train Interference - Metra/PSA Passenger Train Interference - Metra/PSA Passenger Train Interference - Metra/PSA Accident - TOTAL  -87 -82 21 49 -61  -10 -1 1 1 -18 -26 -151  Track Work - TOTAL -4 17 -18 -26 -151  Track Work - TOTAL -4 17 -18 -26 -151  Track Work - Metra/PSA -4 -1 -18 -26 -151  Track Work - Metra/PSA -4 -1 -18 -26 -151  Track Work - Metra/PSA -4 -1 -18 -26 -151  Track Work - Foreign 0 18 0 0 0 0 18 0 0 0 0 18 0 0 0 18 0 0 0 18 0 0 0 18 0 0 0 18 0 0 0 18 0 0 0 18 0 0 0 0 18	Secondary	-43	-39	-29	3	-47								-155	-0.3%
Passenger Train Interference - TOTAL Passenger Train Interference - Metra/PSA Passenger Train Interference - Metra/PSA Passenger Train Interference - Metra/PSA Accident - TOTAL Accident - TOTAL Accident - Foreign -2 -8 -6 0 10 -6 0.3% Accident - TOTAL Accident - Foreign -27 -41 -10 -1 1 -78 -114  Track Work - TOTAL -4 17 -18 -26 -151 -10 -1 1 -18 -26 -151 -18 -26 -151 -18 -200 -0.4% Track Work - Foreign 0 18 0 0 0 0 18 0 0 0 -8 8 0 8 46 -6 0 -6 18 0 0 0 -8 8 0 8 8 46 -6 0 0 0 0 -8 8 0 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Mechanical Failure - Foreign	10	4	0	8	-6								16	0.6%
Passenger Train Interference - Metra/PSA	Ę	-25	-39	-16	-1	10								-71	
Passenger Train Interference - Foreign   -2   -8   -6   0   10     -6   0.3%     Accident - TOTAL   -87   -82   21   49   -61     -160   0.2%     Accident - Metra/PSA   -60   -41   31   50   -62     -82   1.1%     Accident - Foreign   -27   -41   -10   -1   1     -78   -11.1%     Track Work - Foreign   -27   -41   -10   -1   1     -18   -26   -151     -182   0.1%     Track Work - Metra/PSA   -4   -1   -18   -26   -151     -200   -0.4%     Track Work - Foreign   0   18   0   0   0   0   18   0.5%     Human Error - TOTAL   -64   -17   50   -50   -6     -87   2.3%     Human Error - Hotra/PSA   -4   -9   -18   -4   0   -55   0.1%     Sick, Injured, Unruly Passenger - Metra/PSA   -6   -13   -11   6   -12   -20   -3   0.0%     Weather - TOTAL   -1,096   -92   -106   4   -33   -33   -10.1%     Weather - Foreign   -2   -2   10   0   0   0   0   -8   8   -3   0.0%     Weather - Foreign   -2   -106   4   -33   -10.5%     Weather - Foreign   -2   -106   4   -33   -10.5%     Weather - TOTAL   -6   -18   7   -1   -2   -2   0.1%     Weather - TOTAL   -6   -18   7   -1   -2   -2   0.0%     Passenger Loading - TOTAL   -6   -18   7   -1   -2   -2   0.1%     Catenary Failure - TOTAL   -8   14   -22   -11   -8   -3   -2   -2   0.7%     Other - TOTAL   -8   14   -22   -11   -8   -3   -3   -3   -3   -3     Total Metra/PSA Delays   -1,495   -406   -260   -24   -345   -2,530   -2,530   -2,530     Total Metra/PSA Delays   -1,495   -406   -260   -24   -345   -2,530   -	ĕ	-23	-31	-10	-1	0								-65	
Accident - TOTAL	S			-											
Accident - Metra/PSA															
Accident - Foreign															
Track Work - TOTAL															
Track Work - Metra/PSA						•									
Track Work - Foreign   0   18   0   0   0   0   0   18   0.5%				-											
Human Error - TOTAL				-											
Human Error - Metra/PSA		_		-											
Human Error - Foreign		-													
Sick, Injured, Unruly Passenger - TOTAL       -6       -13       -11       6       -12       -36       1.0%         Sick, Injured, Unruly Passenger - Metra/PSA       -6       -13       -11       9       -12       -33       1.1%         Sick, Injured, Unruly Passenger - Foreign       0       0       0       -3       0       -3       0.0%         Weather - TOTAL       -1,096       -92       -106       4       -33       -1,323       -10.1%         Weather - Metra/PSA       -1,094       -102       -106       4       -33       -1,331       -10.5%         Weather - Foreign       -2       10       0       0       0       0       8       0.3%         Passenger Loading - TOTAL       -10       -54       -47       -8       -3       -122       0.1%         Passenger Loading - TOTAL       -6       -18       7       -1       -2       0.8%         Obstruction/Debris - TOTAL       -54       -17       -24       -10       25       -80       1.3%         Catenary Failure - TOTAL       4       2       1       -3       -2       2       0.7%         Other - TOTAL       -8       14       -22       <	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-													
Sick, Injured, Unruly Passenger - Metra/PSA       -6       -13       -11       9       -12       -33       1.1%         Sick, Injured, Unruly Passenger - Foreign       0       0       0       0       -3       0       -3       0.0%         Weather - TOTAL       -1,096       -92       -106       4       -33       -1,323       -10.1%         Weather - Metra/PSA       -1,094       -102       -106       4       -33       -1,331       -10.5%         Weather - Foreign       -2       10       0       0       0       8       0.3%         Passenger Loading - TOTAL       -10       -54       -47       -8       -3       -122       0.1%         Passenger Loading - TOTAL       -6       -18       7       -1       -2       -2       0.0%         Obstruction/Debris - TOTAL       -54       -17       -24       -10       25       -80       1.3%         Catenary Failure - TOTAL       4       2       1       -3       -2       2       0.7%         Other - TOTAL       -8       14       -22       -11       -8       -3       -3,048         TOTAL TRAINS DELAYED       -1,495       -406 <t< td=""><td>ū</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	ū														
Sick, Injured, Unruly Passenger - Foreign         0         0         0         -3         0           Weather - TOTAL         -1,096         -92         -106         4         -33         -1,323         -10.1%           Weather - Metra/PSA         -1,094         -102         -106         4         -33         -1,331         -10.5%           Weather - Foreign         -2         10         0         0         0         8         0.3%           Passenger Loading - TOTAL         -10         -54         -47         -8         -3         -122         0.1%           Passenger Loading - TOTAL         -6         -18         7         -1         -2         0         0         -122         0.1%           Obstruction/Debris - TOTAL         -54         -17         -24         -10         25         -80         1.3%           Catenary Failure - TOTAL         4         2         1         -3         -2         2         0.7%           Other - TOTAL         -8         14         -22         -11         -8         -3         -3         1.1%           TOTAL TRAINS DELAYED         -1,645         -517         -347         -64         -475         -		-													
Weather - TOTAL         -1,096         -92         -106         4         -33         -1,323         -10.1%           Weather - Metra/PSA         -1,094         -102         -106         4         -33         -1,331         -10.5%           Weather - Foreign         -2         10         0         0         0         8         0.3%           Passenger Loading - TOTAL         -10         -54         -47         -8         -3         -122         0.1%           Lift Deployment - TOTAL         -6         -18         7         -1         -2         0.8%           Obstruction/Debris - TOTAL         -54         -17         -24         -10         25         -80         1.3%           Catenary Failure - TOTAL         4         2         1         -3         -2         2         0.7%           Other - TOTAL         -8         14         -22         -11         -8         -3         -3,048           TOTAL TRAINS DELAYED         -1,495         -406         -260         -24         -345         -2,530															
Weather - Metra/PSA       -1,094       -102       -106       4       -33       -1,05%         Weather - Foreign       -2       10       0       0       0       8       0.3%         Passenger Loading - TOTAL       -10       -54       -47       -8       -3       -122       0.1%         Lift Deployment - TOTAL       -6       -18       7       -1       -2       -20       0.8%         Obstruction/Debris - TOTAL       -54       -17       -24       -10       25       -80       1.3%         Catenary Failure - TOTAL       4       2       1       -3       -2       2       0.7%         Other - TOTAL       -8       14       -22       -11       -8       -3       -3       -3       -2       2       0.7%         Other - TOTAL       -8       14       -22       -11       -8       -3       -3       -3       -1       -3       -2       -3       -2       -3       -3       -1       -3       -3       -1       -3       -2       -3       -3       -1       -3       -1       -3       -3       -1       -3       -3       -1       -3       -3       -3 <t< td=""><td></td><td>_</td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>		_		-											
Weather - Foreign         -2         10         0         0         0         8         0.3%           Passenger Loading - TOTAL         -10         -54         -47         -8         -3         -122         0.1%           Lift Deployment - TOTAL         -6         -18         7         -1         -2         -20         0.8%           Obstruction/Debris - TOTAL         -54         -17         -24         -10         25         -80         1.3%           Catenary Failure - TOTAL         4         2         1         -3         -2         2         0.7%           Other - TOTAL         -8         14         -22         -11         -8         -3         -35         1.1%           TOTAL TRAINS DELAYED         -1,645         -517         -347         -64         -475         -3,048           TOTAL TRAINS DELAYED         -1,495         -406         -260         -24         -345         -2,530															
Passenger Loading - TOTAL															
Lift Deployment - TOTAL       -6       -18       7       -1       -2       -20       0.8%         Obstruction/Debris - TOTAL       -54       -17       -24       -10       25       -80       1.3%         Catenary Failure - TOTAL       4       2       1       -3       -2       2       0.7%         Other - TOTAL       -8       14       -22       -11       -8       -35       1.1%         TOTAL TRAINS DELAYED       -1,645       -517       -347       -64       -475       -3,048         Total Metra/PSA Delays       -1,495       -406       -260       -24       -345       -2,530	<u> </u>			-											
Obstruction/Debris - TOTAL       -54       -17       -24       -10       25       -80       1.3%         Catenary Failure - TOTAL       4       2       1       -3       -2       2       0.7%         Other - TOTAL       -8       14       -22       -11       -8       -8       1.1%         TOTAL TRAINS DELAYED       -1,645       -517       -347       -64       -475       -3,048         Total Metra/PSA Delays       -1,495       -406       -260       -24       -345       -2,530															
Catenary Failure - TOTAL       4       2       1       -3       -2       2       0.7%         Other - TOTAL       -8       14       -22       -11       -8       2       0.7%       -35       1.1%         TOTAL TRAINS DELAYED       -1,645       -517       -347       -64       -475       -3,048         Total Metra/PSA Delays       -1,495       -406       -260       -24       -345       -2,530	* *														
Other - TOTAL     -8     14     -22     -11     -8     -11     -8     -35     1.1%       TOTAL TRAINS DELAYED     -1,645     -517     -347     -64     -475     -3,048       Total Metra/PSA Delays     -1,495     -406     -260     -24     -345     -2,530															
TOTAL TRAINS DELAYED         -1,645         -517         -347         -64         -475         -3,048           Total Metra/PSA Delays         -1,495         -406         -260         -24         -345         -2,530	Catenary Failure - TOTAL														
Total Metra/PSA Delays -1,495 -406 -260 -24 -345 -2,530	Other - TOTAL	-8	14	-22	-11	-8								-35	1.1%
	TOTAL TRAINS DELAYED	-1,645	-517	-347	-64	-475								-3,048	
	Total Metra/PSA Delays	-1,495	-406	-260	-24	-345								-2,530	
	Total Foreign Carrier Delays	-150	-111	-87	-40	-130								-518	

Data for current month is final (06/19/15) version from TOPS.

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'Metra/PSA' refers to delays that may be directly or indirectly attributed to Metra or Metra Purchase of Service Agreement partners (BNSF and UP) in commuter rail operation.

Foreign' refers to delays that may be directly or indirectly attributed to other carriers, including freight carriers, Amtrak, and NICTD, that affect Metra trains. 'Foreign' also includes delays attributable to BNSF and Union Pacific freight operations.

TABLE 11: FREIGHT DELAYS between June 2013 and May 2015

			Electric			Mil	lw				Un	ion Paci	fic	
	BNSF	ML	BI	SC	HER	N	W	NCS	RI	SWS	N	NW	W	SYSTEM
Jun-13	22	0	0	0	2	14	11	8	9	10	1	7	31	115
Jul-13	8	0	0	0	2	14	14	11	5	4	1	13	7	79
Aug-13	14	0	1	0	1	8	13	12	2	11	1	6	11	80
Sep-13	9	0	0	0	2	11	19	8	2	4	0	6	10	71
Oct-13	22	0	0	0	4	13	18	14	5	11	0	10	11	108
Nov-13	28	0	0	0	1	8	22	15	22	21	0	4	25	146
Dec-13	59	0	0	0	6	15	25	15	7	12	4	23	31	197
Jan-14	86	0	0	0	9	28	16	16	8	30	0	3	11	207
Feb-14	69	0	0	0	9	40	35	32	15	15	6	11	17	249
Mar-14	27	0	0	0	9	26	23	28	2	11	4	5	24	159
Apr-14	48	0	0	0	1	4	19	13	14	16	2	3	20	140
May-14	61	0	0	0	5	25	31	20	3	19	1	2	10	177
Total	453	0	1	0	51	206	246	192	94	164	20	93	208	1,728
Jun-14	48	0	0	0	2	12	38	17	9	30	1	13	21	191
Jul-14	18	0	0	0	1	24	19	16	12	23	0	5	19	137
Aug-14	26	0	0	0	3	12	24	25	4	17	0	4	38	153
Sep-14	24	0	0	0	5	5	22	8	0	24	5	0	7	100
Oct-14	68	0	0	0	0	10	19	20	3	16	4	11	16	167
Nov-14	13	0	0	0	2	12	14	5	1	25	0	1	7	80
Dec-14	11	0	0	0	2	11	20	6	2	6	0	3	14	75
Jan-15	13	0	0	0	3	29	17	11	3	16	0	3	27	122
Feb-15	5	0	0	0	4	31	14	26	2	19	5	13	39	158
Mar-15	18	0	0	0	3	3	12	12	3	16	5	7	34	113
Apr-15	8	0	0	0	6	11	4	13	4	12	4	9	16	87
May-15	20	0	0	0	4	5	2	8	2	9	0	3	6	59
Total	272	0	0	0	35	165	205	167	45	213	24	72	244	1,442

Data for current month is final (06/19/15) version from TOPS.

 $P: \label{eq:continuous} P: \label{eq:contin$ 

TABLES 12.a & 12.b: FREQUENCY OF LIFT-DEPLOYMENT TRAIN DELAYS BY LINE & MONTH  $2015\,$ 

LINE	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Lift Delays YTD	% of All Delays YTD
BNSF	6	7	8	1	1								23	3.78%
Electric ML	0	0	0	0	0								0	0.00%
Electric BI	0	0	0	0	0								0	0.00%
Electric SC	0	0	0	0	0								0	0.00%
HER	0	0	0	0	0								0	0.00%
Milw N	4	9	0	1	2								16	3.04%
Milw W	4	1	1	1	1								8	2.40%
NCS	0	0	0	0	0								0	0.00%
RI	0	1	1	0	1								3	1.60%
SWS	0	0	0	0	1								1	0.56%
UP N	0	0	0	1	2								3	1.44%
UP NW	5	0	1	3	1								10	3.06%
UP W	3	5	9	2	0								19	5.40%
Total Lift Delays	22	23	20	9	9								83	2.35%
ALL DELAYS		-	•	-	•	-	•	•	•	•	-	•		3,529

Data for current month is final (06/19/15) version from TOPS.

2014

LINE	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Lift Delays All Year	% of All Delays All Year
BNSF	4	2	2	3	2	1	0	22	2	1	0	2	41	1.50%
Electric ML	0	0	0	0	0	0	0	3	0	0	0	0	3	0.42%
Electric BI	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Electric SC	0	0	0	0	0	0	0	1	0	0	0	0	1	0.29%
HER	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Milw N	5	10	2	0	4	2	0	1	2	1	2	4	33	2.25%
Milw W	8	5	5	1	1	9	5	2	4	1	1	5	47	4.25%
NCS	0	3	0	0	0	0	0	2	0	0	0	0	5	0.88%
RI	3	6	2	3	3	4	3	2	0	0	3	1	30	2.48%
SWS	0	0	0	0	0	0	1	1	0	0	1	0	3	0.51%
UP N	0	1	1	1	0	0	0	0	0	0	1	0	4	0.60%
UP NW	3	6	0	1	1	1	0	1	2	1	0	2	18	2.00%
UP W	5	8	1	1	0	2	2	3	3	2	0	2	29	3.04%
Total Lift Delays	28	41	13	10	11	19	11	38	13	6	8	16	214	1.84%
ALL DELAYS	·	·			·			·						11,615

 $P: \label{lem:linear_loss} P: \label{linear_loss} P: \label{linear$ 

06/19/2015

TABLE 13: FREQUENCY OF TRAIN DELAYS BY DURATION May 2015

Minutes	BNSF		Electric		Her	Milwa		NCS	RI	SWS		UP		System
		ML	BI	SC		N	$\mathbf{W}$				N	NW	W	
Peak *														
6-10	14	5	5	1	10	13	8	6	5	4	9	4	7	91
11-15	12	3	0	0	3	4	3	3	2	0	3	3	6	42
16-20	2	1	0	0	2	2	2	0	0	1	1	5	2	18
21+	2	0	0	1	2	0	1	3	0	0	1	3	0	13
Annulled	<u>0</u>	<u>0</u>	0	<u>0</u>	0	0	<u>0</u>	0	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	0	<u>1</u>
Sub-Total	30	9	5	2	17	19	14	12	8	5	14	15	15	165
Off-Peak *	*													
6-10	18	22	4	10	0	25	9	5	18	14	9	10	8	152
11-15	10	6	1	3	0	9	6	2	6	4	7	6	3	63
16-20	3	1	1	1	0	4	7	0	1	0	2	0	5	25
21+	7	3	0	2	0	9	3	0	1	0	5	13	4	47
Annulled	<u>5</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	0	<u>1</u>	<u>0</u>	<u>0</u>	<u>3</u>	<u>0</u>	<u>10</u>
Sub-Total	43	33	6	16	0	47	25	7	27	18	23	32	20	297
May 2015	Total													
6-10	32	27	9	11	10	38	17	11	23	18	18	14	15	243
11-15	22	9	1	3	3	13	9	5	8	4	10	9	9	105
16-20	5	2	1	1	2	6	9	0	1	1	3	5	7	43
21+	9	3	0	3	2	9	4	3	1	0	6	16	4	60
Annulled	<u>5</u>	<u>1</u>	0	0	<u>0</u>	<u>0</u>	0	0	<u>2</u>	0	0	<u>3</u>	0	<u>11</u>
TOTAL	73	42	11	18	17	66	39	19	35	23	37	47	35	462
2015 Year-		72	- 11	10	17	- 00	37	17			31	77	33	102
6-10	301	134	48	48	24	223	126	92	104	96	79	101	140	1,516
11-15	141	78	24	15			73	37	39	40	37	81	92	778
			10		16	105	38		14					
16-20	56	41		13	8	67		18		14	17	51 87	46	393
21+	90	96	14	25	9	107	79	31	20	28	57		69	712
Annulled	<u>20</u>	<u>8</u>	<u>2</u>	<u>6</u>	<u>2</u>	<u>25</u>	<u>18</u>	<u>7</u>	<u>11</u>	<u>1</u>	<u>18</u>	<u>7</u>	<u>5</u>	<u>130</u>
TOTAL	608	357	98	107	59	527	334	185	188	179	208	327	352	3,529
		PER	CENT	COMP	OSITIC	ON OF I	DELAY	SBYR	ANGE	OF DU	RATIO	N		
Minutes	BNSF	ML	Electric BI	SC	Her	Milwa N	aukee W	NCS	RI	SWS	N	UP NW	W	System
May 2015	Total			~ -	<u> </u>				<u> </u>		,			
6-10	43.8%	64.3%	81.8%	61.1%	58.8%	57.6%	43.6%	57.9%	65.7%	78.3%	48.6%	29.8%	42.9%	52.6%
11-15	30.1%	21.4%	9.1%	16.7%	17.6%	19.7%	23.1%	26.3%	22.9%	17.4%	27.0%	19.1%	25.7%	22.7%
16-20	6.8%	4.8%	9.1%	5.6%	11.8%	9.1%	23.1%	0.0%	2.9%	4.3%	8.1%	10.6%	20.0%	9.3%
										0.0%				
21+	12.3%	7.1%	0.0%	16.7%	11.8%	13.6%	10.3%	15.8%	2.9%		16.2%	34.0%	11.4%	13.0%
Annulled	6.8%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.7%	0.0%	0.0%	6.4%	0.0%	2.4%
TOTAL			100.0%		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2015 Year-														
6-10	49.5%	37.5%	49.0%	44.9%	40.7%	42.3%	37.7%	49.7%	55.3%	53.6%	38.0%	30.9%	39.8%	43.0%
11-15	23.2%	21.8%	24.5%	14.0%	27.1%	19.9%	21.9%	20.0%	20.7%	22.3%	17.8%	24.8%	26.1%	22.0%
16-20	9.2%	11.5%	10.2%	12.1%	13.6%	12.7%	11.4%	9.7%	7.4%	7.8%	8.2%	15.6%	13.1%	11.1%
21+	14.8%	26.9%	14.3%	23.4%	15.3%	20.3%	23.7%	16.8%	10.6%	15.6%	27.4%	26.6%	19.6%	20.2%
Annulled	3.3%	2.2%	2.0%	5.6%	3.4%	4.7%	5.4%	3.8%	<u>5.9%</u>	0.6%	8.7%	2.1%	1.4%	3.7%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

\*Includes peak direction trains operating during weekday peak periods. \*\*Includes all other weekday and weekend trains.

Data for most recent month is final (06/19/15) version from TOPS.

6/19/2015

TABLE 14: AVERAGE LENGTH OF DELAY BY SERVICE PERIOD, IN MINUTES

	BNSF	Electric			Her	Milwaukee		NCS	RI	SWS	WS UP			System
		ML	BI	SC		N	W				N	NW	W	
May 2015														
Peak *	11.6	10.0	7.2	14.5	11.8	10.8	11.4	15.2	9.3	9.8	11.6	21.7	11.5	12.3
Off-Peak **	19.1	12.2	10.2	16.0		16.7	15.6	9.7	10.1	8.5	15.6	34.5	19.3	16.8
All	15.8	11.7	8.8	15.8	11.8	15.0	14.1	13.2	9.9	8.8	14.1	30.1	15.9	15.2
	_													
2015 Year-to-Date														
Peak *	13.4	21.0	14.0	20.4	15.3	18.8	19.0	15.3	13.4	12.3	23.1	19.4	14.5	16.9
Off-Peak **	17.7	15.3	12.7	16.7		19.8	19.2	15.2	12.9	14.6	19.7	24.4	18.3	18.1
All	15.0	18.7	13.5	18.2	15.3	19.4	19.1	15.3	13.0	13.9	21.1	22.1	16.8	17.5

Data for most recent month is final (06/19/15) version from TOPS.

Excludes annulled trains, which do not have delay times.

\*Includes peak direction trains operating during weekday peak periods. \*\*Includes all other weekday and weekend trains.