COMMUTER RAIL SYSTEM ON-TIME PERFORMANCE REPORT April 2016



Division of Strategic Capital Planning

June 2016

COMMUTER RAIL ON-TIME PERFORMANCE April 2016

This report presents an analysis of the April 2016 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 April 2016, Metra operated 17,021 scheduled trains, including scheduled "extras", if any. 451 of these trains were delayed (late or annulled), representing an on-time performance rate of 97.4%. Table 2 lists on-time percentages by line for each month and year since 2011.

Table 3 lists each train that was on time for less than 85% of its weekday runs in April 2016, 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 April 2016. Of the 451 delays systemwide in April 2016, all but 201 (45%) were beyond Metra's control. Table 6.b shows the average frequencies over the previous four Aprils, and Table 6.c shows the differences between Table 6.a and Table 6.b., illustrating that in April 2016, 36 fewer delays than the average over the previous four Aprils were controllable. Table 6.d shows the delay-cause control frequencies since the beginning of the year. Of the 2,329 delays in 2016, all but 1,076 (46%) were beyond Metra's control.

Table 7 provides a daily listing of the number of delays by line and branch for April 2016.

Table 8.a shows the frequency of train delays by delay-cause category and by line during April 2016. Table 8.b shows the average frequencies over the previous five Aprils, and Table 8.c shows the differences between Table 8.a and Table 8.b. There were 451 delays systemwide in April 2016, 125 less than the average over the previous five Aprils. Table 9.a shows delays from the beginning of the year through April 2016. Table 9.b shows the average frequencies from the beginning of the year through April 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 2016 and 2015 respectively, and Table 10.c shows the difference between the two. From January through April of 2016, a total of 2,329 trains were delayed, compared to 3,067 trains delayed in the same four months of 2015.

In Tables 8 through 10, delays by cause are 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 April 2016 freight operations delayed 44 trains systemwide, compared to 87 a year earlier. Tables 12.a and 12.b display the frequency of lift-deployment train delays by line and month, for 2016 and 2015 respectively. A total of 3 trains were delayed by lift deployment in April 2016.

A review of April 2016 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 41.5% of all late trains. Table 14 shows that the average length of delay was 19.6 minutes in April 2016. 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 April 2016

				W	eekday	8						Weel	kends				Total	
	l	Peak*		Off	f-Peak*	*		Total		Sa	turday	s	Sunday	s & Ho	lidays			
	Trains Scheduled	Trains Late	Percent On-Time															
BNSF	1,134	36	96.8%	840	27	96.8%	1,974	63	96.8%	140	6	95.7%	72	0	100.0%	2,186	69	96.8%
Elec -ML	945	21	97.8%	714	12	98.3%	1,659	33	98.0%	230	4	98.3%	80	0	100.0%	,	37	98.1%
-BI	294	3	99.0%	483	5	99.0%	777	8	99.0%	150	0	100.0%				927	8	99.1%
-SC	<u>357</u>	<u>1</u>	99.7%	<u>777</u>	<u>3</u>	99.6%	<u>1,134</u>	<u>4</u>	99.6%	<u>240</u>	<u>0</u>	100.0%	<u>80</u>	<u>1</u>	98.8%		<u>5</u>	99.7%
Subtotal	1,596	25	98.4%	1,974	20	99.0%	3,570	45	98.7%	620	4	99.4%	160	1	99.4%	4,350	50	98.9%
Heritage	126	2	98.4%	21	2	90.5%	147	4	97.3%							147	4	97.3%
Milw -N	525	9	98.3%	735	26	96.5%	1,260	35	97.2%	120	9	92.5%	80	2	97.5%	1,460	46	96.8%
-W	<u>567</u>	<u>16</u>	97.2%	<u>651</u>	<u>32</u>	95.1%	<u>1,218</u>	<u>48</u>	96.1%	<u>120</u>	<u>4</u>	96.7%	<u>72</u>	<u>4</u>	94.4%	<u>1,410</u>	<u>56</u>	96.0%
Subtotal	1,092	25	97.7%	1,386	58	95.8%	2,478	83	96.7%	240	13	94.6%	152	6	96.1%	2,870	102	96.4%
NCS	231	14	93.9%	231	17	92.6%	462	31	93.3%							462	31	93.3%
RI	756	44	94.2%	693	16	97.7%	1,449	60	95.9%	160	0	100.0%	112	1	99.1%	1,721	61	96.5%
SWS	231	4	98.3%	399	25	93.7%	630	29	95.4%	30	0	100.0%				660	29	95.6%
UP -N	630	8	98.7%	840	8	99.0%	1,470	16	98.9%	130	13	90.0%	72	0	100.0%	1,672	29	98.3%
-NW	693	17	97.5%	672	9	98.7%	1,365	26	98.1%	120	1	99.2%	60	3	95.0%	1,545	30	98.1%
-W	<u>567</u>	<u>18</u>	96.8%	<u>672</u>	<u>20</u>	97.0%	<u>1,239</u>	<u>38</u>	96.9%	<u>100</u>	<u>8</u>	92.0%	<u>69</u>	<u>0</u>	100.0%	<u>1,408</u>	<u>46</u>	96.7%
Subtotal	1,890	43	97.7%	2,184	37	98.3%	4,074	80	98.0%	350	22	93.7%	201	3	98.5%	4,625	105	97.7%
SYSTEM	7,056	193	97.3%	7,728	202	97.4%	14,784	395	97.3%	1,540	45	97.1%	697	11	98.4%	17,021	451	97.4%

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

Delays data for most recent month is final (05/13/16) version from TOPS.

													JAN-	
LINE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	APR	AVG
	•													
BNSF 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	95.2%	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	96.3%	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	94.4%	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	87.7%	89.7%
2015	90.9	90.1	96.8	97.5	96.6	92.4	93.0	95.4	95.8	93.6	93.5	97.4	93.9%	94.4%
2016	93.2	93.8	95.9	96.8									95.0%	95.0%
2011-2015 averag	e 91.2	91.2	95.9	95.6	92.2	89.6	92.2	94.1	95.1	93.9	94.7	95.5	93.5%	93.5%
Electric 2011	98.6	95.1	98.1	97.7	97.7	95.1	94.6	96.6	97.0	94.4	97.2	98.7	97.5%	96.8%
2012	93.7	98.4	97.9	98.7	98.0	97.0	97.3	97.7	97.5	96.6	97.1	98.2	97.2%	97.3%
2013	98.1	99.0	98.5	98.0	98.0	98.3	92.4	96.4	97.2	97.3	96.9	97.0	98.4%	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	96.4%	97.5%
2015	96.3	95.4	98.4	98.4	98.3	97.7	96.5	98.2	97.9	97.8	97.8	99.0	97.2%	97.6%
2016	98.0	98.6	98.8	98.9									98.6%	98.6%
2011-2015 averag	e 96.1	96.7	98.1	98.3	98.0	97.1	95.5	97.4	97.7	96.9	97.5	98.3	97.3%	97.3%
Heritage 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	90.3%	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	96.9%	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	97.1%	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	84.3%	91.4%
2015	92.1	90.0	96.2	88.6	85.8	89.4	92.0	85.7	86.5	98.5	85.0	90.9	91.8%	90.2%
2016		92.9	97.4	97.3									94.7%	94.7%
2011-2015 averag	e 91.1	88.5	93.6	94.8	95.7	91.5	90.1	93.3	91.5	93.5	90.6	90.7	92.1%	92.1%
Milw - N 2011	92.9	85.3	95.7	95.5	89.2	84.4	78.3	87.6	92.3	88.1	91.9	93.9	92.6%	89.6%
2012	95.1	96.4	94.0	95.3	93.5	93.2	84.8	92.9	94.3	94.9	95.4	95.5	95.2%	93.8%
2013	95.5	92.4	94.1	95.7	95.3	89.6	92.8	93.6	94.4	93.3	95.7	87.5	94.5%	93.3%
2014	73.1	81.9	89.5	97.9	95.1	91.1	96.0	95.2	95.5	96.2	95.4	93.5	85.6%	91.7%
2015	91.8	87.9	93.5	95.1	95.4	94.8	97.1	94.9	95.6	97.9	97.0	96.8	92.2%	94.9%
2016		94.2	95.7	96.8									95.5%	95.5%
2011-2015 averag	e 89.6	88.9	93.4	95.9	93.3	90.6	90.0	92.8	94.4	94.1	95.0	93.4	92.0%	92.6%
Milw - W 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	94.2%	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	95.6%	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	95.1%	94.2%
2014		88.4	91.4	97.6	95.9	92.2	94.0	93.5	96.7	95.5	97.7	94.6		
2015		93.0	94.8	97.7	97.2	95.4	96.6	96.8	97.8	99.0	98.2	96.5	94.8%	
2016		95.3	94.4	96.0									94.9%	
2011-2015 averag	e 93.1	91.0	95.1	96.8	96.1	92.4	92.5	94.0	94.5	96.6	94.6	95.4	94.0%	94.3%
	0 - 1					0.5 -	05.5							
NCS 2011		88.3	93.5	90.9	92.9	88.8	87.3	92.1	93.1	93.5	83.7	92.4	92.2%	
2012		94.4	94.4	85.1	95.2	94.8	82.5	91.9	95.7	93.9	92.0	94.8	92.2%	
2013		87.5	93.7	90.9	94.0	92.7	93.6	95.0	92.5	93.1	90.0	87.4	91.9%	
2014		81.1	88.5	96.3	88.5	89.2	94.0	88.5	95.2	90.9	97.8	91.9	85.7%	
2015		82.5	92.6	94.8	95.7	94.8	96.0	92.6	95.2	97.1	96.1	93.6	91.1%	
2016		95.5	91.7	93.3	c 2 =	0.2 1	00.0	6 6 -	0.1.7	62 -	01.2		93.2%	93.2%
2011-2015 average	e 91.1	86.8	92.6	91.7	92.7	92.1	90.9	92.1	94.3	93.7	91.8	92.0	90.6%	91.8%

 TABLE 2: ON-TIME PERFORMANCE BY LINE/BRANCH

													JAN-	
LINE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	APR	AVG
	1												1 11	
RI 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	95.4%	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	95.5%	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	96.6%	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	88.7%	93.8%
2015	97.4	95.3	98.9	98.7	97.8	97.4	94.2	97.0	96.3	97.3	97.1	97.4	97.6%	97.1%
2016	92.6	96.2	95.8	96.5									95.3%	95.3%
2011-2015 average	93.6	92.7	96.6	96.0	95.6	92.9	92.0	95.5	96.5	96.7	96.1	96.6	94.8%	95.1%
GWG 2011	05.1	00.7	06.2	05.2	04.0	051	00.0	00.2	01.2	02.4	02.0	04.1	04.20/	02.10/
SWS 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 05.0	93.2	95.3	94.5	93.8	94.3	93.7	96.3	95.2%	94.8%
2013	94.7	97.1	97.3 02.5	97.7	95.0 02.2	91.0	98.0 03.0	96.8 05.2	97.1 94.2	98.2	93.2	91.1	96.7%	95.6%
2014 2015	83.0 94.7	92.0 89.7	93.5 95.6	94.9 96.1	93.2 96.3	92.8 91.1	93.9 92.4	95.2 93.8	94.2 97.6	92.0 96.8	90.2 96.0	96.2 94.4	90.8% 94.1%	92.6% 94.5%
2015	94.7 95.6	89.7 97.2	93.0 97.8	90.1 95.6	20.5	71.1	72.4	75.0	91.0	90.0	90.0	74.4	94.1% 96.6%	94.5% 96.6%
2010 2011-2015 average	93.0	97.2	97.8	95.8	94.5	90.6	93.7	94.1	94.8	94.8	93.2	94.4	90.0%	93.9%
2011-2013 average	12.5	75.1	15.5	15.0	ד.J	20.0	15.1	/ - ,1	יד.0	יד.0	15.4	74.4	77.270	13.970
UP - N 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	93.6%	92.6%
2012	94.6	98.4	97.9	98.1	95.1	95.1	95.9	95.1	96.3	97.3	96.6	95.8	97.3%	96.4%
2013	98.3	97.3	97.9	96.6	96.7	93.0	96.0	94.9	97.0	96.5	96.9	98.0	97.5%	96.6%
2014	91.2	92.1	97.4	97.8	97.4	97.2	97.6	98.1	97.6	97.4	97.8	98.3	94.7%	96.7%
2015	98.6	95.6	98.3	97.1	97.7	98.2	97.0	95.9	98.2	97.0	97.6	98.4	97.5%	97.5%
2016	96.9	98.6	97.1	98.3									97.7%	97.7%
2011-2015 average	95.8	94.1	97.3	97.0	96.2	95.0	94.4	94.9	96.2	96.0	96.6	97.4	96.1%	95.9%
UP - NW 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	95.6%	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	97.4%	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	96.2%	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	93.2%	95.2%
2015	96.0	91.6	97.6	96.3	96.9	96.8	94.1	96.5	96.1	97.5	96.7	97.5	95.5%	96.2%
2016	97.0	98.1	97.8	98.1	04.0	04.2	02.0	05.5	067	05.9	05.7	05.0	97.8%	97.8%
2011-2015 average	94.3	93.7	96.9	97.2	94.9	94.2	93.8	95.5	96.7	95.8	95.7	95.9	95.6%	95.4%
UP - W 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	92.4%	90.9%
2011	93.1	97.1	95.0 95.2	95.5	95.6	92.4	93.8	94.3	97.2	97.2	96.0	96.4	95.2%	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	96.0%	94.5%
2014	85.9	90.9	94.4	96.7	96.4	94.8	96.4		96.7			96.2		
2015	93.9	91.1	96.1	96.3	97.5	93.9	93.9	95.9	96.0	96.1	97.3	96.8	94.4%	95.4%
2016	97.8	93.4	97.2	96.7									96.3%	96.3%
2011-2015 average	92.6	92.6	95.3	95.5	94.7	91.9	93.1	93.3	95.4	95.3	95.0	94.1	94.0%	94.1%
	•													
SYSTEM 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	95.0%	93.6%
excluding 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	96.2%	95.8%
South Shore 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%	95.4%
2014	85.6	89.3	94.9	96.8	94.5	93.1	95.6	95.7	96.8	95.9	96.9	96.5	91.7%	94.3%
2015	94.9	92.5	97.0	97.2	97.2	95.8	95.3	96.3	96.8	97.0	96.8	97.5	95.5%	96.2%
2016	95.8	96.4	96.8	97.4	0 - 0	02 :		0 = 0	0.5.2	o = =	o = =	0.5.5	96.6%	96.6%
2011-2015 average Delays data for most recent	93.6	93.1	96.3	96.6	95.8	93.4	93.3	95.0	96.0	95.7	95.7	96.1	94.9%	95.1%

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

P:\ONTIME\report\[Delays&TrainsByServPeriod.xls]OTPbyLine&Month 5/16/2016

'2011-2015 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-TIMEApril 2016

Γ			Minutes	Delay	
Line	Train	Date	Late	Code	Delay Explanation
MN	2155	Tue, Apr 05	13	G1	12" MEET #2158 AND SWAP CREWS, WESTERN
8	81% OT	Wed, Apr 13	9	А	10" WAIT ON UP TRAIN, MAYFAIR
		Wed, Apr 27	28	G	10" LATE TURN FROM #2158, CSU; 16" STOP SIGNAL WAITING ON MAINTAINER TO RELEASE HIS BLOCK
					ON #11 SWITCH, A-5
		Fri, Apr 29	19	G	13" SIGNAL PROBLEMS, RONDOUT
MW	2256	Thu, Apr 14	20	K	20" VEHICLE STUCK ON TRACKS, 75TH ELMWOOD PARK
8	81% OT	Fri, Apr 15	30	M1	33" LATE TURN FROM #2251
		Mon, Apr 25	11	D	5" LATE TURN FROM #2251; 8" WAIT ON G-35 TO CLEAR, B-35
		Fri, Apr 29	25	J1	23" LATE TURN FROM #2251
NCS		Tue, Apr 05	9	RA	8" STOP SIGNAL, CP LAKE ST CUS
8	81% OT	Mon, Apr 11	8	CA	3" STOP SIGNAL, DEVAL; 7" STOP, LAKE ST CUS
		Fri, Apr 15	7	Α	10" FOLLOWING #108; 2" STOP X-TRAFFIC, DEVAL
		Mon, Apr 25	8	DM1	8" STOP SIGNAL, DEVAL
RI	413	Mon, Apr 11	8	G1	7M CP RICHARDS RICHARDS ST WAITING ON RI411 TO CLEAR INTO 1SOUTH & #5SW FAILING REVERSE
8	81% OT	Tue, Apr 19	6	CG	5M RUNNING AROUND SWITCH FAILURES AT BI
		Fri, Apr 22	95	H1	SEE RI0411 DELAY REPORT
		Mon, Apr 25	14	JM	14M 35TH ST MEDICAL EMERGENCY
RI	414	Tue, Apr 05	20	E1	16M LATE DEPARTING RICHARDS, DUE TO LATE TURN OF EQUIPMENT (401 TURNING AS 414).4M LATE
					ENROUTE HEAVEY PASSENGER LOADING
	6% OT	Fri, Apr 15	23	E1	20M LATE DEPARTING RICHARDS DUE TO LATE TURN OF TRAIN AND CUTTING EQUIPMENT AT JCY.
		TTI 1 21	10	Б	1444 ATT DED ADTRIC RECHARDS WATTRIC ON PROTECTOR ENCINE OF OF DUAL ORIGINATED OF
		Thu, Apr 21	19	Е	16M LATE DEPARTING RICHARDS WAITING ON PROTECTOR ENGINE OFF OF RI401, ORIGINIATED OUT OF NL.
		Tue, Apr 26	15	E1	OF NL. 15M LATE ARRIVEING LSS DUE TO MECH PROBLEMS W/RI 604. ALSO MADE STATION STOPS @ GRE &
		Tue, Apr 20	15	EI	35TH ST
		Wed, Apr 27	6	E1	1M MAKING ADDITIONAL STOP AT BI, 3M INSTRUCTED TO WAIT AT BI SO NOT TO GET INTO RI302'S
		wed, Apr 27	0	EI	TIME, 1M ADDITIONAL STOP AT GRESHAM.
SWS	837	Fri, Apr 08	6	GA	PER TTR1 10 MPH CP RIDGE, WAIT FOR OUTBOUND ASHBURN, 10 MPH BRC, XTRAFFIC 518, &
5 11 5	857	111, Api 08	0	UA	FLAGGING CUS ALL DELAYS OF COUPLE MINS, ARR 179 6M LATE 920
-	/6% OT	Tue, Apr 12	9	RF	16 MIN (2020-2036P) DISPATCHER THOUGHT NS205 WOULD CLEAR AND CREW MADE A WRONG CUT
'	0/0 01	rue, Apr 12	2	IXI ¹	ACROSS CP518, 7600' 37X6
		Wed, Apr 13	18	GA1	15 MIN AT 143RD WAITING FOR SW840 TO TURNOUT OF 179TH
		Fri, Apr 15	18	D	16M CP 518 2022/2038 WAITING FOR NS 205 7400FT TO YARD INTO 55TH ST YARD
		Thu, Apr 13	9	F	DEPARTED CUS 14M LATE ACCT DOOR PROBLEMS
		12/16) varsion fr	-	1	

Data is final (05/13/16) version from TOPS.

P:\ONTIME\report\[WeekdayTrainsBelow85% table.xlsx]PrintCopy 05/16/2016

Primary	Code Secondary	Primary Annulled	Definition	Delay Class	Responsibility
А	A1	XA	Passenger Train Interference	Transportation	Controllable
AA	AA1	XAA	Rule 9.9 Delayed in Block/Rule 6.30	Transportation	Controllable
AD	AD1	XAD	Non-Revenue Passenger Train Interference	Transportation	Controllable
AM	AM1	XAM	Amtrak Caused Delay	Transportation	Controllable
AS	AS1	XAS	NICTD Train Interference	Transportation	Controllable
AW	AW1	XAW	Pass. Train Interference, Weather	Transportation	Uncontrollable
В	B1	XB	Human Error, Eng. Dept.	Engineering	Controllable
BA	BA1	XBA	Amtrak Engineering Human Error	Engineering	Controllable
С	C1	XC	Unscheduled Track Work	Engineering	Controllable
CA	CA1	XCA	Amtrak Engineering	Engineering	Semi-controllabl
CC	CC1	XCC	Scheduled Track Work	Engineering	Controllable
CF	CF1	XCF	Engineering Equipment Malfunction	Engineering	Controllable
CG	CG1	XCG	Scheduled Signal Work	Engineering	Controllable
CH	CH1	XCH	Contractor Failure	Engineering	Controllable
со	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	DE1	XDE	Freight Mechanical Malfunction	Transportation	Semi-controllabl
DM	DM1	XDM	Freight-Accident/Incident	Incidental	Uncontrollable
DR	DR1	XDR	Freight-Human Error	Transportation	Semi-controllabl
DW	DW1	XDW	Freight Train Interference, Weather	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	ETMS Malfunction on Locomotive	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-controllabl
GF	GF1	XGF	Signal/Switch Foreign Line	Engineering	Semi-controllabl
GM	GM1	XGM	Gate Crossing Malfunction	Engineering	Controllable
GM 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
KF KW	KW1	XKW	Obstruction On Tracks, Weather	Incidental	Uncontrollable
KW L	Ll		,		
		XL	Unauthorized People On Tracks/Near Miss	Incidental	Uncontrollable
M	MI	XM	Right of Way Accident/Misc.	Incidental	Uncontrollable
MW	MW1	XMW	Right of Way Accident/Misc., Weather	Incidental	Uncontrollable
N	N1	XN	Electricity Utility Failure	Incidental	Uncontrollable
NW	NW1	XNW	Electricity Utility Failure, Weather	Incidental	Uncontrollable
0	01	XO	AC/DC System Failure	Engineering	Controllable
OW	OW1	XOW	AC/DC System Failure, Weather	Engineering	Uncontrollable
Q	Q1	XQ	Late Issuance of Track Warrant	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		Transportation	Controllable
RO	RO1	XRO	Human Error, Tower Operator	Transportation	Controllable
			Human Error, NICTD Transportation		
RS	RS1 DW1	XRS	, <u>1</u>	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
Т	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	Locomotive Problem Reported, Nothing Found	Incidental	Controllable
	VF1	XVF	Cab Car Problem Reported, Nothing Found	Incidental	Controllable
VE		22.7.1	cue cui i robieni reported, robining i bund	monutar	controllable
VF VG	VG1	XVG	Broken Gate Crossing Reported, Nothing Found	Incidental	Uncontrollable

TABLE 4: DELAY INCIDENT CODES AND DEFINITIONS

 W
 W1
 XW
 Gas Leak

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

P:\ONTIME\[#DelayClassificationTbl2012_v2014.xls]IncidentCodeTable 03/12/2014

TABLE 5: DELAY INCIDENT CODES SORTED BY CAUSE CATEGORY & CARRIER DESIGNATION

METRA/PSA DELAY CODES	METRA/PSA DELAY CODES (continued)	FOREIGN CARRIER DELAY CODES
CATEGORY	CATEGORY	CATEGORY
Codes	Codes	Codes
Pri. Sec. Ann. Definition	Pri. Sec. Ann. Definition	Pri. Sec. Ann. Definition
1 Passenger Train Interference	13 Human Error	1 Passenger Train Interference
A A1 XA Passenger Train Interference	B B1 XB Human Error, Eng. Dept.	AM AM1 XAM Amtrak Caused Delay
AA AA1 XAA Rule 9.9 Delayed in Block/Rule 6.30	H H1 XH Human Error, Mechanical Department	AS AS1 XAS NICTD Train Interference
AD AD1 XAD Non-Revenue Passenger Train Interference	R R1 XR Human Error, Transportation	2 & 3 Freight Interference - Peak & Off-Peak
4 Accident	RD RD1 XRD Human Error, Metra Dispatcher	D D1 XD Freight Train Interference
M M1 XM Right of Way Accident/Misc.	RL RL1 XRL Human Error, Job Action/Employee No Show (CMS Error)	DD DD1 XDD Freight Dispatcher/Opr/Freight Train Error
5 Passenger Loading	RN RN1 XRN Human Error, Job Action/Employee No Show (Non-CMS)	DE DE1 XDE Freight Mechanical Malfunction
I II XI Passenger Handling, Running Time	RO RO1 XRO Human Error, Tower Operator	DR DR1 XDR Freight-Human Error
IB IB1 XIB Passenger Handling, Bicycle	RZ RZ1 XRZ ETMS Train Crew Error	4 Accident
6 Lift Deployment	14 Sick, Injured, Unruly Passenger	DM DM1 XDM Freight-Accident/Incident
U U1 XU Accessibility Related (ADA)	J J1 XJ Passenger Problems/Removal	8 Signal/Switch Failure
UF UF1 XUF ADA Lift Failure	JM JM1 XJM Passenger Medical Emergency	GA GA1 XGA Signal/Switch Failure Amtrak (Signal Dept.)
7 Obstruction/Debris	15 Weather	GF GF1 XGF Signal/Switch Foreign Line
K K1 XK Obstruction On Tracks	AW AW1 XAW Pass. Train Interference, Weather	9 Track Work
KD KD1 XKD Train Struck Debris	CW CW1 XCW M of W Work, Weather	CA CA1 XCA Amtrak Engineering
KP KP1 XKP Suspicious Package(s)/Person(s)/Activity	EW EW1 XEW Locomotive Malfunction, Weather	11 Non-Locomotive Equipment Failure
8 Signal/Switch Failure	FW FW1 XFW Cab Car/TRL/MU Malfunction, Weather	FS FS1 XFS NICTD MU Malfunction
CM CM1 XCM Switch Malfunction (Track Dept.)	GW GW1 XGW Signal/Switch Malfunction Weather (Signal Dept.)	12 Locomotive Failure
G G1 XG Signal/Switch Malfunction (Signal Dept.)	IW IW1 XIW Passenger Handling, Weather	EA EA1 XEA Amtrak Locomotive/Car Malfunction
GM GM1 XGM Gate Crossing Malfunction	KW KW1 XKW Obstruction On Tracks, Weather	13 Human Error
GT GT1 XGT Telecom Failure	MW MW1XMW Right of Way Accident/Misc., Weather	BA BA1 XBA Amtrak Engineering Human Error
GX GX1 XGX Broken Gate Crossing	NW NW1 XNW Electricity Utility Failure, Weather	HS HS1 XHS Human Error, NICTD Mechanical Dept.
GZ GZ1 XGZ ETMS Signal Malfunction	OW OW1 XOW AC/DC System Failure, Weather	RA RA1 XRA Human Error, Amtrak Transportation
VG VG1 XVG Broken Gate Crossing Reported, Nothing Found	RW RW1 XRW Train Crew Issues, Weather	RF RF1 XRF Freight Dispatcher/Opr/Non-Freight Train Error
9 Track Work	UW UW1 XUW Accessibility, Weather	RS RS1 XRS Human Error, NICTD Transportation
C C1 XC Unscheduled Track Work	16 Other	14 Sick, Injured, Unruly Passenger
CC CC1 XCC Scheduled Track Work	L L1 XL Unauthorized People On Tracks/Near Miss	JA JA1 XJA Amtrak Passenger Problems/Removal
CF CF1 XCF Engineering Equipment Malfunction	N N1 XN Electricity Utility Failure	15 Weather
CG CG1 XCG Scheduled Signal Work	Q Q1 XQ Late Issuance of Track Warrant	DW DW1 XDW Freight Train Interference, Weather
CH CH1 XCH Contractor Failure	S S1 XS Operational (Efficiency) Testing	
10 Catenary Failure	T T1 XT Property Vandalism	
CO CO1 XCO Scheduled Wire Work	VE VE1 XVE Locomotive Problem Reported, Nothing Found	
O O1 XO AC/DC System Failure	VF VF1 XVF Cab Car Problem Reported, Nothing Found	
11 Non-Locomotive Equipment Failure	W W1 XW Gas Leak	
F F1 XF Cab Car/Trailer/MU Malfunction		
FZ FZ1 XFZ ETMS Malfunction on Cab Car		
12 Locomotive Failure		
E E1 XE Locomotive Malfunction		
EZ EZ1 XEZ ETMS Malfunction on Locomotive		

Effective January 1, 2014 Revised

Revised February 2, 2015

'Metra/PSA' refers to delays that either directly affect or are directly attributable to Metra or its Purchase of Service Agreement partners (BNSF and Union Pacific) on Metra or PSA-controlled rail lines or trains in commuter 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.

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

April	2016
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			Electric			Mi	w				Ur	nion Pacif	ic		
DELAY CONTROL	BNSF	ML	BI	SC	HER	Ν	W	NCS	RI	SWS	Ν	NW	W	SYST	EM
Controllable	22	5	0	3	0	31	14	10	44	7	23	12	30	201	45%
Semi-controllable	35	0	0	0	4	11	6	5	1	17	0	1	3	83	18%
Uncontrollable	12	32	8	2	0	4	36	16	16	5	6	17	13	167	37%
TOTAL TRAINS DELAYED	69	37	8	5	4	46	56	31	61	29	29	30	46	451	100%

April - Average Over Previous Four Years: 2012-2015

			Electric			Mi	ilw				Ur	nion Paci	fic		
DELAY CONTROL	BNSF	ML	BI	SC	HER	Ν	W	NCS	RI	SWS	N	NW	W	SYST	ΈM
Controllable	52.5	17.3	4.3	9.8	1.8	38.8	17.3	15.8	26.0	10.5	13.8	13.0	16.3	236.8	42%
Semi-controllable	16.3	0.0	0.0	0.0	4.0	11.8	10.5	20.8	6.3	13.3	2.5	6.0	18.3	109.5	19%
Uncontrollable	36.3	22.8	5.8	7.5	1.5	9.3	13.0	2.5	33.8	3.5	28.0	24.8	27.0	215.5	38%
TOTAL TRAINS DELAYED	105.0	40.0	10.0	17.3	7.3	59.8	40.8	39.0	66.0	27.3	44.3	43.8	61.5	561.8	100%

April 2016 Divergence From April Average Over Previous Four Years

			Electric			Mi	ilw				Uı	nion Paci	fic		
DELAY CONTROL	BNSF	ML	BI	SC	HER	Ν	W	NCS	RI	SWS	Ν	NW	W	SYS	ГЕМ
Controllable	-30.5	-12.3	-4.3	-6.8	-1.8	-7.8	-3.3	-5.8	18.0	-3.5	9.3	-1.0	13.8	-35.8	32%
Semi-controllable	18.8	0.0	0.0	0.0	0.0	-0.8	-4.5	-15.8	-5.3	3.8	-2.5	-5.0	-15.3	-26.5	24%
Uncontrollable	-24.3	9.3	2.3	-5.5	-1.5	-5.3	23.0	13.5	-17.8	1.5	-22.0	-7.8	-14.0	-48.5	44%
TOTAL TRAINS DELAYED	-36.0	-3.0	-2.0	-12.3	-3.3	-13.8	15.3	-8.0	-5.0	1.8	-15.3	-13.8	-15.5	-110.8	100%

					Jai	nuary-	April 2	2016							
			Electric			Mi	lw				Uı	ion Pacif	ïc		
DELAY CONTROL	BNSF	ML	BI	SC	HER	N	W	NCS	RI	SWS	Ν	NW	W	SYST	EM
Controllable	155	64	17	19	11	120	127	54	188	24	84	66	147	1,076	46%
Semi-controllable	109	0	0	0	17	43	54	47	42	43	0	13	19	387	17%
Uncontrollable	181	93	21	35	1	101	108	27	99	24	70	61	45	866	37%
TOTAL TRAINS DELAYED	445	157	38	54	29	264	289	128	329	91	154	140	211	2,329	100%

Data for current month is final (05/13/16) version from TOPS.

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

05/16/2016

	EKDAY	1	4	5	6	7	8	11	12	13	14	15	18	19	20	21	22	25	26	27	28	29	TOTAL
		∎ Fr	Mo		We	, Th	Fr	Мо		We		Fr			We	Th	Fr	Mo	Tu		Th	Fr	IOIAL
BNSF	,	2	2	0	4	0	3	1	0	12	0	1	0	0	2	0	0	5	2	2	4	23	63
DINGE		2	2	0	4	0	3	1	0	12	0	1	0	0	2	0	0	5	2	2	4	23	03
Elec ·		1	0	3	2	1	0	0	0	1	1	1	0	0	0	0	0	1	0	20	2	0	33
	-BI	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	6	0	0	8
	-SC	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1	4
Herita	age	0	0	0	0	0	0	0	0	0	1	1	0	1	1	0	0	0	0	0	0	0	4
Milw ·	-N	3	2	5	0	0	2	4	0	1	0	2	1	0	3	2	0	2	0	2	2	4	35
	-W	1	0	3	0	0	1	2	5	2	3	17	1	0	0	2	0	3	0	0	1	7	48
NCS		2	4	2	0	3	0	1	0	0	0	10	1	0	0	0	1	6	0	0	0	1	31
RI		1	1	1	0	0	0	1	3	2	0	3	0	9	1	2	14	9	10	2	1	0	60
SWS		0	0	1	0	0	5	0	2	8	0	2	1	0	1	1	0	1	1	0	0	6	29
UP ·	-N	2	1	0	0	1	1	0	0	0	0	4	0	1	3	1	0	0	0	0	2	0	16
	-NW	1	0	0	0	4	0	3	0	0	0	3	0	0	5	1	0	0	0	0	9	0	26
	-W	<u>0</u>	<u>0</u>	<u>2</u>	<u>1</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>5</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>4</u>	<u>0</u>	<u>7</u>	<u>8</u>	<u>38</u>
SYST	ЕМ	13	11	17	7	10	14	12	10	28	9	45	4	13	21	9	17	27	18	32	28	50	395
SATU	URDAY	2	9	16	23	30]	ГОТ	AL			SU	NDA	Y/I	IOI	LID	AY	3	10	17	24		TOTAL
BNSF	,	2	1	0	1	2			6			BI	NSF					0	0	0	0		0
	NT																						
Elec ·	-ML	1	3	0	0	0			4			El	ec ·	-ML				0	0	0	0		0
	-BI	1 0	3 0	0	0 0	0 0			4 0			El		·BI				0	0 -	0 -	0		0 0
						-						El						0 - 0	0 - 0	0 - 1	0 - 0		
	-BI -SC	0	0	0	0	0			0					-BI -SC				-	-	-	-		
	-BI -SC age	0	0	0	0	0 0 -			0			Н	eritag	-BI -SC ge				-	-	-	-		0 1
Herita Milw ·	-BI -SC age	0 0 -	0 0 -	0 0 -	0 0 -	0			0 0 -			Н	eritag ilw	-BI -SC ge				- 0 -	- 0 -	- 1 -	- 0 -		0 1 0
Herita Milw ·	-BI -SC age -N	0 0 - 2	0 0 - 1	0 0 - 4	0 0 - 0	0 0 - 2			0 0 - 9			Н	eritag ilw	-BI -SC ge -N				- 0 - 0	- 0 - 1	- 1 - 0	- 0 - 1		0 1 0 2
· Herita Milw ·	-BI -SC age -N	0 0 - 2	0 0 - 1	0 0 - 4	0 0 - 0	0 0 - 2			0 0 - 9			Ho M	eritag ilw CS	-BI -SC ge -N				- 0 - 0	- 0 - 1	- 1 - 0	- 0 - 1		0 1 0 2 4
Herita Milw . NCS	-BI -SC age -N	0 0 - 2 0 -	0 0 - 1 0 -	0 0 - 4 0 -	0 0 - 0 2 -	0 0 - 2 2 2			0 0 - 9 4 -			He M N R	eritag ilw CS	-BI -SC ge -N				- 0 - 0 0	- 0 - 1 3 -	- 1 - 0 1	- 0 - 1 0 -		0 1 0 2 4 0
Herita Milw - NCS RI SWS	-BI -SC age -N	0 0 - 2 0 - 0	0 0 - 1 0 - 0	0 0 - 4 0 - 0	0 0 - 0 2 - 0	0 0 - 2 2 - 0			0 0 - 9 4 - 0			He M N R	eritag ilw CS [VS	-BI -SC ge -N				- 0 - 0 0	- 0 - 1 3 -	- 1 - 0 1	- 0 - 1 0 -		0 1 0 2 4 0 1
Herita Milw NCS RI SWS UP	-BI -SC age -N -W	0 0 - 2 0 - 0 0 0	0 0 - 1 0 - 0 0	0 0 - 4 0 - 0 0	0 0 - 0 2 - 0 0 0	0 0 - 2 2 2 - 0 0 0			0 0 - 9 4 - 0 0			He M N(RI SV	eritag ilw CS [WS	-BI -SC ge -N -W				- 0 0 0 - 0	- 1 3 - 0	- 1 - 0 1 - 0 -	- 0 - 1 0 - 1 -		0 1 0 2 4 0 1 0
Herita Milw NCS RI SWS UP	-BI -SC age -N -W	0 0 - 2 0 - 0 0 0 0 0	0 0 - 1 0 - 0 0 0 0	0 0 - 4 0 - 0 0 0 3	0 0 2 - 0 0 8	0 0 2 2 2 - 0 0 0 2			0 0 - 9 4 - 0 0 13			He M N(RI SV	eritag ilw CS [WS P	-BI -SC ge -N -W				- 0 - 0 - 0 - 0	- 0 - 1 3 - 0 - 0	- 1 - 0 1 - 0 - 0	- 0 - 1 0 - 1 - 0		0 1 0 2 4 0 1 0 0 0

TABLE 7: NUMBER OF DELAYS BY DATEApril 2016

Data is final (05/13/16) version from TOPS.

 $P:\label{eq:ontime} P:\label{eq:ontime} P:\l$

TABLE 8.a:FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE
April 2016

April 2016 Electric Milw Union Pacific														
			Electric			Mil	W				Ur	nion Pacif	ic	
CAUSE CATEGORY	BNSF	ML	BI	SC	HER	Ν	W	NCS	RI	SWS	Ν	NW	W	SYSTEM
Freight Interference - TOTAL	13	0	0	0	3	8	4	3	1	8	0	1	3	44
Freight Interference - Peak	2	0	0	0	1	0	0	0	0	3	0	1	2	9
Primary	2	0	0	0	1	0	0	0	0	3	0	1	0	7
Secondary	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Freight Interference - Off-Peak	11	0	0	0	2	8	4	3	1	5	0	0	1	35
Primary	8 3	0 0	0 0	0	2 0	7 1	3 1	3 0	1 0	4	0 0	0 0	1 0	29 6
Secondary	31	0	0	0	1		9	2		1		4		
Signal/Switch Failure - TOTAL		<u> </u>	0	2	1	23	9	-	3	11	5 5		7	98
Signal/Switch Failure - Metra/PSA	7	0	0		0	20	-	1	-	2		4	7	60
Primary Secondary	6 1	0 0	0	2 0	0 0	14 6	8 1	1 0	2 1	1	2 3	2 2	3 4	41 19
Signal/Switch Failure - Foreign	24	0	0	0	1	3	0	1	0	9	0	0	0	38
Primary	24	0	0	0	1	2	0	1	0	9	0	0	0	33
Secondary	23	0	0	0	0	1	0	0	0	3	0	0	0	5
Mechanical Failure - TOTAL	5	1	0	0	0	3	1	6	15	1	2	3	6	43
Mechanical Failure - Metra/PSA	5	0	0	0	0	3	1	6	15	1	2	3	6	42
Non-Locomotive Equipment Failure - Metra/PSA	1	0	0	0	0	0	0	2	0	1	2	0	0	6
Primary	1	0	0	0	0	0	0	1	0	1	2	0	0	5
Secondary	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Locomotive Failure - Metra/PSA	4	0	0	0	0	3	1	4	15	0	0	3	6	36
Primary	3	0	0	0	0	3	1	2	2	0	0	1	2	14
Secondary	1	0	0	0	0	0	0	2	13	0	0	2	4	22
Mechanical Failure - Foreign	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Passenger Train Interference - TOTAL	1	0	0	0	0	1	0	2	0	0	0	0	0	4
Passenger Train Interference - Metra/PSA	0	0	0	0	0	1	0	2	0	0	0	0	0	3
Passenger Train Interference - Foreign	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Accident - TOTAL	8	0	1	0	0	0	22	14	0	0	0	3	0	48
Accident - Metra/PSA	8	0	1	0	0	0	22	10	0	0	0	0	0	41
Accident - Foreign	0	0	0	0	0	0	0	4	0	0	0	3	0	7
Track Work - TOTAL	6	4	0	0	0	1	2	1	7	1	13	0	9	44
Track Work - Metra/PSA	6	4	0	0	0	1	0	0	7	1	13	0	9	41
Track Work - Foreign	0	0	0	0	0	0	2	1	0	0	0	0	0	3
Human Error - TOTAL	3	1	0	0	0	6	4	1	19	3	3	5	8	53
Human Error - Metra/PSA	2	1	0	0	0	2	2	0	19	1	2	5	7	41
Human Error - Foreign	1	0	0	0	0	4	2	1	0	2	1	0	1	12
Sick, Injured, Unruly Passenger - TOTAL	0	7	1	1	0	2	4	1	12	1	4	10	7	50
Sick, Injured, Unruly Passenger - Metra/PSA	0	7	1	1	0	2	4	1	12	1	4	10	7	50
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	0	0	0	0	0	0	1
Weather - Metra/PSA	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Weather - Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Passenger Loading - TOTAL	1	2	0	0	0	1	0	0	1	1	1	0	1	8
Lift Deployment - TOTAL	0	0	0	0	0	0	2	0	0	0	0	0	1	3
Obstruction/Debris - TOTAL	0	22	6	1	0	1	8	1	3	3	1	4	4	54
Catenary Failure - TOTAL	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Other - TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL TRAINS DELAYED	69	37	8	5	4	46	56	31	61	29	29	30	46	451
		-	-		•	-		-	-	-			-	-
Total Metra/PSA Delays	30 39	36	8	5	4	31	48	21 10	60	10 19	28	26	42	345
Total Foreign Carrier Delays	39	1	0	0	4	15	δ	10	1	19	1	4	4	106

Data for current month is final (05/13/16) version from TOPS.

 $P:\label{eq:continue} P:\label{eq:continue} P:\label{eq:continue$

'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.

Anril - A	verage O	ver Previo	is Five V	ears: 2011-1	2015
April - r	iverage O			cars. 2011-	2013

April - Average Over Previous Five Years: 2011-2015 Electric Milw Union Pacific Union Pacific														
CAUSE CATEGORY	BNSF	ML	BI	SC	HER	Ν	W	NCS	RI	SWS	Ν	NW	W	SYSTEM
Freight Interference - TOTAL	14.6	0.0	0.0	0.0	2.4	10.2	9.4	20.8	5.6	13.8	2.0	5.4	20.2	104.4
Freight Interference - Peak	5.0	0.0	0.0	0.0	2.4	3.0	1.8	9.4	2.0	2.4	0.4	2.6	4.2	33.2
Primary	1.8	0.0	0.0	0.0	2.2	2.4	1.2	6.6	1.0	2.2	0.2	1.2	2.4	21.2
Secondary	3.2	0.0	0.0	0.0	0.2	0.6	0.6	2.8	1.0	0.2	0.2	1.4	1.8	12.0
Freight Interference - Off-Peak	9.6	0.0	0.0	0.0	0.0	7.2	7.6	11.4	3.6	11.4	1.6	2.8	16.0	71.2
Primary Secondary	8.2 1.4	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	6.4 0.8	6.0 1.6	8.4 3.0	3.0 0.6	9.6 1.8	1.2 0.4	2.4 0.4	12.8 3.2	58.0 13.2
Signal/Switch Failure - TOTAL	8.6	3.8	2.4	1.0	1.8	17.4	9.6	8.8	4.4	3.2	3.6	2.4	10.6	77.6
Signal/Switch Failure - Metra/PSA	8.0	3.8	2.4	1.0	0.2	14.6	7.4	6.4	3.8	0.8	3.6	2.4	10.0	65.0
Primary	5.6	3.2	1.4	0.8	0.2	8.8	4.8	4.6	3.2	0.0	2.2	2.4	4.8	42.0
Secondary	2.4	0.6	1.0	0.2	0.0	5.8	2.6	1.8	0.6	0.4	1.4	0.4	5.8	23.0
Signal/Switch Failure - Foreign	0.6	0.0	0.0	0.0	1.6	2.8	2.2	2.4	0.6	2.4	0.0	0.0	0.0	12.6
Primary	0.2	0.0	0.0	0.0	1.6	1.6	1.0	0.6	0.4	2.0	0.0	0.0	0.0	7.4
Secondary	0.4	0.0	0.0	0.0	0.0	1.2	1.2	1.8	0.2	0.4	0.0	0.0	0.0	5.2
Mechanical Failure - TOTAL	10.0	6.2	1.8	1.2	0.0	6.8	5.6	1.4	8.4	3.8	3.8	7.2	2.6	58.8
Mechanical Failure - Metra/PSA	10.0	5.0	1.2	1.0	0.0	6.8	5.6	1.4	8.0	3.8	3.8	7.2	2.6	56.4
Non-Locomotive Equipment Failure - Metra/PSA	2.4	5.0	1.2	1.0	0.0	0.0	0.8	0.0	1.8	0.2	0.6	1.6	0.6	15.2
Primary	1.2	1.6	0.6	0.2	0.0	0.0	0.4	0.0	1.2	0.0	0.4	0.8	0.4	6.8
Secondary	1.2	3.4	0.6	0.8	0.0	0.0	0.4	0.0	0.6	0.2	0.2	0.8	0.2	8.4
Locomotive Failure - Metra/PSA	7.6 2.8	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	6.8 2.4	4.8	1.4 0.4	6.2	3.6 1.4	3.2 1.2	5.6 1.2	2.0	41.2
Primary Secondary	2.8 4.8	0.0	0.0	0.0	0.0	2.4 4.4	1.6 3.2	0.4	2.8 3.4	1.4 2.2	1.2 2.0	1.2 4.4	1.4 0.6	15.2 26.0
Mechanical Failure - Foreign	0.0	1.2	0.6	0.2	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	2.4
Passenger Train Interference - TOTAL	1.0	0.4	0.0	0.2	0.4	3.6	0.4	1.2	1.0	0.0	0.4	0.0	0.4	9.2
Passenger Train Interference - Metra/PSA	0.0	0.4	0.0	0.2	0.4	2.8	0.4	1.2	1.0	0.2	0.4	0.0	0.4	6.8
Passenger Train Interference - Foreign	1.0	0.0	0.0	0.0	0.4	0.8	0.0	0.0	0.0	0.2	0.0	0.0	0.0	2.4
Accident - TOTAL	4.4	4.2	2.8	1.2	0.0	0.0	2.2	0.0	3.6	0.0	4.4	5.0	7.2	35.0
Accident - Metra/PSA	4.4	4.2	2.8	1.2	0.0	0.0	2.0	0.0	3.6	0.0	4.4	5.0	7.2	34.8
Accident - Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Track Work - TOTAL	13.4	4.2	0.4	4.0	0.0	5.4	3.4	3.8	8.8	0.0	8.6	3.2	1.8	57.0
Track Work - Metra/PSA	13.4	4.2	0.4	4.0	0.0	5.4	3.4	3.8	8.8	0.0	8.6	3.2	1.8	57.0
Track Work - 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
Human Error - TOTAL	14.6	2.6	0.8	3.8	1.0	6.6	2.8	0.8	5.4	3.8	5.6	1.6	1.8	51.2
Human Error - Metra/PSA	12.0	2.6	0.8	3.6	0.2	3.8	2.0	0.4	5.2	0.8	5.2	1.0	0.8	38.4
Human Error - Foreign	2.6	0.0	0.0	0.2	0.8	2.8	0.8	0.4	0.2	3.0	0.4	0.6	1.0	12.8
Sick, Injured, Unruly Passenger - TOTAL	2.8	5.4	1.0	2.8	0.2	3.4	4.6	1.0	2.6	1.0	3.8	2.0	3.0	33.6
Sick, Injured, Unruly Passenger - Metra/PSA	2.4	5.4	1.0	2.8	0.2	3.4	4.6	1.0	2.4	1.0	3.8	2.0	3.0	33.0
Sick, Injured, Unruly Passenger - Foreign	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.6
Weather - TOTAL	18.6	0.6	0.6	0.0	0.2	2.4	1.0	0.6	6.2	0.6	5.8	6.6	4.4	47.6
Weather - Metra/PSA	18.6	0.6	0.6	0.0	0.2	2.4	1.0	0.6	6.2	0.6	5.8	6.6	4.4	47.6
Weather - 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
Passenger Loading - TOTAL	2.0	6.8	1.2	3.6	0.0	0.8	1.2	0.2	10.6	0.4	3.6	1.6	4.4	36.4
Lift Deployment - TOTAL	1.8	0.0	0.0	0.0	0.0	0.8	1.2	0.0	3.0	0.0	1.4	1.0	2.2	11.4
Obstruction/Debris - TOTAL	4.6	1.6	0.2	2.6	0.8	1.4	2.8	0.6	5.4	0.6	4.4	6.0	4.0	35.0
Catenary Failure - TOTAL	0.0	1.4	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
Other - TOTAL	1.2	2.2	0.2	1.2	0.0	2.0	1.8	0.4	0.6	0.6	3.2	1.2	2.2	16.8
TOTAL TRAINS DELAYED	97.6	39.4	11.4	22.6	6.8	60.8	46.0	39.6	65.6	28.0	50.6	43.2	64.8	576.4
Total Metra/PSA Delays	78.4	38.2	10.8	22.2	1.6	44.2	33.4	16.0	58.6	8.6	48.2	37.2	43.6	441.0
Total Foreign Carrier Delays	19.2	1.2	0.6	0.4	5.2	16.6	12.6	23.6	7.0	19.4	2.4	6.0	21.2	135.4
							-=-0						2	

Data for latest month is final (05/21/15) version from TOPS.

P:\ONTIME\report\[DelaysByCause.xlsm]LastMonthByLine 05/16/2016

'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.

April 2016 Divergence From April Average Over Previous Five Years Electric Milw Union Pacific														
			Electric			Mi	lw				Ur	nion Paci	fic	
CAUSE CATEGORY	BNSF	ML	BI	SC	HER	Ν	W	NCS	RI	SWS	Ν	NW	W	SYSTEM
Freight Interference - TOTAL	-1.6	0.0	0.0	0.0	0.6	-2.2	-5.4	-17.8	-4.6	-5.8	-2.0	-4.4	-17.2	-60.4
Freight Interference - Peak	-3.0	0.0	0.0	0.0	-1.4	-3.0	-1.8	-9.4	-2.0	0.6	-0.4	-1.6	-2.2	-24.2
Primary	0.2	0.0	0.0	0.0	-1.2	-2.4	-1.2	-6.6	-1.0	0.8	-0.2	-0.2	-2.4	-14.2
Secondary	-3.2	0.0	0.0	0.0	-0.2	-0.6	-0.6	-2.8	-1.0	-0.2	-0.2	-1.4	0.2	-10.0
Freight Interference - Off-Peak	1.4 -0.2	0.0 0.0	0.0 0.0	0.0 0.0	2.0 2.0	0.8 0.6	-3.6 -3.0	-8.4 -5.4	-2.6 -2.0	-6.4 -5.6	-1.6 -1.2	-2.8 -2.4	-15.0 -11.8	-36.2 -29.0
Primary Secondary	-0.2	0.0	0.0	0.0	2.0	0.8	-3.0	-3.4	-2.0	-3.6 -0.8	-1.2	-2.4	-11.8	-29.0
Signal/Switch Failure - TOTAL	22.4	-3.8	-2.4	1.0	-0.8	5.6	-0.6	-6.8	-1.4	7.8	1.4	1.6	-3.6	20.4
Signal/Switch Failure - Metra/PSA	-1.0	-3.8	-2.4	1.0	-0.2	5.4	1.6	-5.4	-0.8	1.2	1.4	1.6	-3.6	-5.0
Primary	0.4	-3.2	-1.4	1.2	-0.2	5.2	3.2	-3.6	-1.2	0.6	-0.2	0.0	-1.8	-1.0
Secondary	-1.4	-0.6	-1.0	-0.2	0.0	0.2	-1.6	-1.8	0.4	0.6	1.6	1.6	-1.8	-4.0
Signal/Switch Failure - Foreign	23.4	0.0	0.0	0.0	-0.6	0.2	-2.2	-1.4	-0.6	6.6	0.0	0.0	0.0	25.4
Primary	22.8	0.0	0.0	0.0	-0.6	0.4	-1.0	0.4	-0.4	4.0	0.0	0.0	0.0	25.6
Secondary	0.6	0.0	0.0	0.0	0.0	-0.2	-1.2	-1.8	-0.2	2.6	0.0	0.0	0.0	-0.2
Mechanical Failure - TOTAL	-5.0	-5.2	-1.8	-1.2	0.0	-3.8	-4.6	4.6	6.6	-2.8	-1.8	-4.2	3.4	-15.8
Mechanical Failure - Metra/PSA	-5.0	-5.0	-1.2	-1.0	0.0	-3.8	-4.6	4.6	7.0	-2.8	-1.8	-4.2	3.4	-14.4
Non-Locomotive Equipment Failure - Metra/PSA Primary	-1.4 -0.2	-5.0 -1.6	-1.2 -0.6	-1.0 -0.2	0.0 0.0	0.0 0.0	-0.8 -0.4	2.0 1.0	-1.8 -1.2	0.8 1.0	1.4 1.6	-1.6 -0.8	-0.6 -0.4	-9.2 -1.8
Frimary Secondary	-0.2	-1.0	-0.6	-0.2	0.0	0.0	-0.4 -0.4	1.0	-1.2	-0.2	-0.2	-0.8	-0.4	-1.8 -7.4
Locomotive Failure - Metra/PSA	-3.6	0.0	0.0	0.0	0.0	-3.8	-3.8	2.6	8.8	-3.6	-3.2	-2.6	4.0	-5.2
Primary	0.2	0.0	0.0	0.0	0.0	0.6	-0.6	1.6	-0.8	-1.4	-1.2	-0.2	0.6	-1.2
Secondary	-3.8	0.0	0.0	0.0	0.0	-4.4	-3.2	1.0	9.6	-2.2	-2.0	-2.4	3.4	-4.0
Mechanical Failure - Foreign	0.0	-0.2	-0.6	-0.2	0.0	0.0	0.0	0.0	-0.4	0.0	0.0	0.0	0.0	-1.4
Passenger Train Interference - TOTAL	0.0	-0.4	0.0	-0.2	-0.4	-2.6	-0.4	0.8	-1.0	-0.2	-0.4	0.0	-0.4	-5.2
Passenger Train Interference - Metra/PSA	0.0	-0.4	0.0	-0.2	0.0	-1.8	-0.4	0.8	-1.0	0.0	-0.4	0.0	-0.4	-3.8
Passenger Train Interference - Foreign	0.0	0.0	0.0	0.0	-0.4	-0.8	0.0	0.0	0.0	-0.2	0.0	0.0	0.0	-1.4
Accident - TOTAL	3.6	-4.2	-1.8	-1.2	0.0	0.0	19.8	14.0	-3.6	0.0	-4.4	-2.0	-7.2	13.0
Accident - Metra/PSA	3.6	-4.2	-1.8	-1.2	0.0	0.0	20.0	10.0	-3.6	0.0	-4.4	-5.0	-7.2	6.2
Accident - Foreign	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	4.0	0.0	0.0	0.0	3.0	0.0	6.8
Track Work - TOTAL	-7.4	-0.2	-0.4	-4.0	0.0	-4.4	-1.4	-2.8	-1.8	1.0	4.4	-3.2	7.2	-13.0
Track Work - Metra/PSA	-7.4	-0.2	-0.4	-4.0	0.0	-4.4	-3.4	-3.8	-1.8	1.0	4.4	-3.2	7.2	-16.0
Track Work - Foreign	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	3.0
Human Error - TOTAL	-11.6	-1.6	-0.8	-3.8	-1.0	-0.6	1.2	0.2	13.6	-0.8	-2.6	3.4	6.2	1.8
Human Error - Metra/PSA	-10.0 -1.6	-1.6 0.0	-0.8 0.0	-3.6 -0.2	-0.2 -0.8	-1.8 1.2	0.0 1.2	-0.4 0.6	13.8 -0.2	0.2 -1.0	-3.2 0.6	4.0 -0.6	6.2 0.0	2.6 -0.8
Human Error - Foreign Sick, Injured, Unruly Passenger - TOTAL	-1.6	1.6	0.0	-0.2	-0.8	-1.4	-0.6	0.0	-0.2	-1.0	0.8	-0.6	4.0	-0.8
Sick, Injured, Unruly Passenger - Metra/PSA	-2.8	1.6	0.0	-1.8	-0.2	-1.4	-0.6	0.0	9.4 9.6	0.0	0.2	8.0	4.0	10.4
Sick, Injured, Unruly Passenger - Foreign	-2.4	0.0	0.0	-1.8	-0.2	-1.4	-0.0	0.0	-0.2	0.0	0.2	0.0	4.0	-0.6
Weather - TOTAL	-17.6	-0.6	-0.6	0.0	-0.2	-2.4	-1.0	-0.6	-6.2	-0.6	-5.8	-6.6	-4.4	-46.6
Weather - Metra/PSA	-17.6	-0.6	-0.6	0.0	-0.2	-2.4	-1.0	-0.6	-6.2	-0.6	-5.8	-6.6	-4.4	-46.6
Weather - 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
Passenger Loading - TOTAL	-1.0	-4.8	-1.2	-3.6	0.0	0.2	-1.2	-0.2	-9.6	0.6	-2.6	-1.6	-3.4	-28.4
Lift Deployment - TOTAL	-1.8	0.0	0.0	0.0	0.0	-0.8	0.8	0.0	-3.0	0.0	-1.4	-1.0	-1.2	-8.4
Obstruction/Debris - TOTAL	-4.6	20.4	5.8	-1.6	-0.8	-0.4	5.2	0.4	-2.4	2.4	-3.4	-2.0	0.0	19.0
Catenary Failure - TOTAL	0.0	-1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.4
Other - TOTAL	-1.2	-2.2	-0.2	-1.2	0.0	-2.0	-1.8	-0.4	-0.6	-0.6	-3.2	-1.2	-2.2	-16.8
TOTAL TRAINS DELAYED	-28.6	-2.4	-3.4	-17.6	-2.8	-14.8	10.0	-8.6	-4.6	1.0	-21.6	-13.2	-18.8	-125.4
Total Metra/PSA Delays	-48.4	-2.2	-2.8	-17.2	-1.6	-13.2	14.6	5.0	1.4	1.4	-20.2	-11.2	-1.6	-96.0
Total Foreign Carrier Delays	19.8	-0.2	-0.6	-0.4	-1.2	-1.6	-4.6	-13.6	-6.0	-0.4	-1.4	-2.0	-17.2	-29.4

TABLE 8.c: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE April 2016 Divergence From April Average Over Previous Five Years

Data for current month is final (05/13/16) version from TOPS.

P:\ONTIME\report\[DelaysByCause.xlsm]LastMonthByLine 05/16/2016

'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

			Electric			Mil						ion Pacifi		
CAUSE CATEGORY	BNSF	ML	BI	SC	HER	Ν	W	NCS	RI	SWS	Ν	NW	W	SYSTEM
Freight Interference - TOTAL	42	0	0	0	9	23	41	15	43	20	0	6	23	222
Freight Interference - Peak	10	0	0	0	7	1	12	3	18	8	0	4	9	72
Primary Secondary	9	0	0 0	0 0	7 0	1 0	8 4	2 1	11	8 0	0	4 0	4 5	54 18
Freight Interference - Off-Peak	32	0	0	0	2	22	29	12	25	12	0	2	14	150
Primary	26	0	0	0	2	17	29 16	12	25 18	12	0	1	14	130
Secondary	6	0	0	0	0	5	13	1	7	2	0	1	2	37
ignal/Switch Failure - TOTAL	100	31	11	10	8	79	66	47	30	37	10	19	82	530
Signal/Switch Failure - Metra/PSA	24	31	11	10	0	56	55	16	30	11	10	12	82	348
Primary	17	7	5	6	0	29	36	8	18	6	5	9	12	158
Secondary	7	24	6	4	0	27	19	8	12	5	5	3	70	190
Signal/Switch Failure - Foreign Primary	76 61	0 0	0 0	0 0	8 7	23 19	11 11	31 20	0 0	26 19	0	7 2	0 0	182 139
Primary Secondary	61 15	0	0	0	1	4	0	20	0	19 7	0	2 5	0	43
Aechanical Failure - TOTAL	51	6	0	0	6	21	44	19	100	1	40	29	32	349
Mechanical Failure - Metra/PSA	51	5	0	0	6	21	44	19	100	1	40	29	32	348
Non-Locomotive Equipment Failure - Metra/PSA	5	5	0	0	2	8	4	4	0	1	13	1	17	60
Primary	4	3	0	0	1	4	2	1	0	1	6	1	6	29
Secondary	1	2	0	0	1	4	2	3	0	0	7	0	11	31
Locomotive Failure - Metra/PSA	46	0	0	0	4	13	40	15	100	0	27	28	15	288
Primary Secondary	15 31	0 0	0 0	0 0	3 1	7 6	14 26	4 11	18 82	0 0	7 20	8 20	8 7	84 204
Mechanical Failure - Foreign	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Passenger Train Interference - TOTAL	5	6	1	1	2	10	0	7	7	1	0	0	1	41
Passenger Train Interference - Metra/PSA	0	2	0	0	2	5	0	, 7	, 7	. 1	0	0	1	23
Passenger Train Interference - Foreign	5	4	1	1	2	5	Ő	0	0	0	Ő	0	0	18
Accident - TOTAL	50	0	1	0	1	25	24	15	7	6	27	24	4	184
Accident - Metra/PSA	50	0	1	0	1	16	24	10	7	6	27	21	3	166
Accident - Foreign	0	0	0	0	0	9	0	5	0	0	0	3	1	18
Track Work - TOTAL	36	7	1	8	0	3	19	2	16	1	21	13	14	141
Track Work - Metra/PSA	36	7	1	8	0	3	17	1	16	1	21	13	14	138
Track Work - Foreign	0	0	0	0	0	0	2	1	0	0	0	0	0	3
Iuman Error - TOTAL	27	3	2	3	3	16	13	8	32	8	9	12	9	145
Human Error - Metra/PSA	24	3	2	3	0	10	6	4	32	1	5	12	8	110
Human Error - Foreign	3	0	0	0	3	6	7	4	0	7	4	0	1	35
Sick, Injured, Unruly Passenger - TOTAL	5	28	4	5	0	7	21	2	14	2	10	21 21	17	136
Sick, Injured, Unruly Passenger - Metra/PSA	5 0	28 0	4 0	5 0	0	7 0	21 0	2 0	14 0	2 0	10 0	21	17 0	136 0
Sick, Injured, Unruly Passenger - Foreign Veather - TOTAL	97	34	6	14	0	38	18	6	46	4	20	2	5	290
Weather - Metra/PSA	97	34	6	14	0	38	18	6	40	4	20	2	5	290
Weather - Foreign	0	0	0	0	0	0	0	0	40	0	20	0	0	200
Passenger Loading - TOTAL	3	6	3	0	0	4	10	0	21	1	3	2	4	57
Lift Deployment - TOTAL	7	1	0	0	Õ	15	3	1	4	0	0	3	6	40
Destruction/Debris - TOTAL	13	23	7	11	0 0	15	28	4	6	8	8	7	12	142
Catenary Failure - TOTAL	0	12	1	2	0	0	0	0	0	0	0	0	0	15
Other - TOTAL	9	0	1	0	0	8	2	2	3	2	6	2	2	37
TOTAL TRAINS DELAYED	445	157	38	54	29	264	289	128	329	91	154	140	211	2,329
Total Metra/PSA Delays	319	152	37	53	7	198	228	72	286	38	150	124	186	1,850
Total Foreign Carrier Delays	126	5	1	1	22	66	61	56	43	53	4	16	25	479

TABLE 9.a: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE Luncom April 2010

Data for current month is final (05/13/16) version from TOPS.

P:\ONTIME\report\[DelaysByCause.xlsm]YTDByLine 05/16/2016

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, Antrak, and NICTD, that affect Metra trains. 'Foreign' also includes delays

January - April - Average Over Previous Five Years: 2011-2015 Electric Milw Union Pacific														
			Electric			Mi	lw				U	nion Pacif	ic	
CAUSE CATEGORY	BNSF	ML	BI	SC	HER	N	W	NCS	RI	SWS	Ν	NW	W	SYSTEM
Freight Interference - TOTAL	76.6	0.0	0.0	0.0	14.4	63.4	51.8	63.6	22.0	54.2	8.2	19.2	89.8	463.2
Freight Interference - Peak	33.6	0.0	0.0	0.0	14.4	13.6	11.6	24.4	5.6	16.4	1.2	8.8	21.2	150.8
Primary	19.0	0.0	0.0	0.0 0.0	13.6	9.2	8.2	16.8	3.6	12.8	0.6	4.4	11.4	99.6
Secondary	14.6	0.0	0.0		0.8	4.4	3.4	7.6	2.0	3.6	0.6	4.4	9.8	51.2
Freight Interference - Off-Peak Primary	43.0 36.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	49.8 33.4	40.2 29.0	39.2 32.2	16.4 14.8	37.8 30.8	7.0 4.2	10.4 8.2	68.6 57.0	312.4 245.6
Secondary	7.0	0.0	0.0	0.0	0.0	16.4	11.2	7.0	14.8	7.0	2.8	2.2	11.6	66.8
Signal/Switch Failure - TOTAL	67.4	22.0	12.0	7.6	8.8	86.0	50.6	31.8	35.6	32.6	15.4	19.4	35.8	425.0
Signal/Switch Failure - Metra/PSA	44.8	22.0	12.0	7.6	4.0	73.0	40.8	21.6	33.0	10.0	15.2	19.0	35.2	338.2
Primary	29.8	16.8	9.4	6.8	3.8	39.2	24.6	12.0	25.0	7.6	10.4	13.6	18.6	217.6
Secondary	15.0	5.2	2.6	0.8	0.2	33.8	16.2	9.6	8.0	2.4	4.8	5.4	16.6	120.6
Signal/Switch Failure - Foreign	22.6	0.0	0.0	0.0	4.8	13.0	9.8	10.2	2.6	22.6	0.2	0.4	0.6	86.8
Primary Secondary	19.0 3.6	0.0 0.0	0.0 0.0	0.0 0.0	4.6 0.2	9.6 3.4	7.0 2.8	5.0 5.2	1.2 1.4	15.2 7.4	0.2 0.0	0.2 0.2	0.6 0.0	62.6 24.2
Mechanical Failure - TOTAL	46.4	14.4	5.6	5.4	1.2	67.8	33.6	13.6	46.4	12.8	28.4	30.4	20.8	326.8
Mechanical Failure - Metra/PSA	46.4	14.4	5.0	5.4	1.2	63.4	33.4	13.6	40.4	12.8	28.4	30.4	20.8	320.8
Non-Locomotive Equipment Failure - Metra/PSA	40.0	13.0	5.0	5.2	0.6	9.4	8.8	2.6	40.0	5.6	28.4	5.2	20.0	93.0
Primary	5.0	5.2	2.0	2.6	0.0	2.6	3.6	1.0	4.2	1.8	2.6	1.8	3.2	36.0
Secondary	11.0	7.8	3.0	2.6	0.2	6.8	5.2	1.6	4.6	3.8	5.2	3.4	1.8	57.0
Locomotive Failure - Metra/PSA	30.0	0.0	0.0	0.0	0.6	54.0	24.6	11.0	37.2	7.2	20.6	25.2	15.6	226.0
Primary	9.6	0.0	0.0	0.0	0.6	12.8	9.0	2.8	13.0	3.0	6.0	6.8	6.6	70.2
Secondary	20.4	0.0	0.0	0.0	0.0	41.2	15.6	8.2	24.2	4.2	14.6	18.4	9.0	155.8
Mechanical Failure - Foreign	0.4	1.4	0.6	0.2	0.0	4.4	0.2	0.0	0.4	0.0	0.0	0.0	0.2	7.8
Passenger Train Interference - TOTAL	5.4	4.0	1.2	2.4	2.4	30.6	5.6	5.6	6.2	3.4	4.4	2.6	7.0	80.8
Passenger Train Interference - Metra/PSA Passenger Train Interference - Foreign	0.8 4.6	2.2 1.8	0.6 0.6	2.0 0.4	0.0 2.4	21.2 9.4	5.0 0.6	5.6 0.0	5.4 0.8	0.6 2.8	4.4 0.0	2.6 0.0	6.8 0.2	57.2 23.6
Accident - TOTAL	4.0	7.6	3.8	2.8	0.4	9.4	27.0	6.2	15.4	0.4	22.0	32.2	14.0	194.6
Accident - Metra/PSA	32.4	7.6	3.8	2.8	0.4	17.4	27.0	5.0	13.4	0.4	22.0	32.2	14.0	178.0
Accident - Foreign	13.0	0.0	0.0	0.0	0.0	0.0	0.4	1.2	1.2	0.0	0.0	0.0	0.8	176.6
Track Work - TOTAL	41.6	21.8	9.0	7.6	0.4	16.0	9.4	9.8	14.4	0.6	14.4	7.2	9.4	161.6
Track Work - Metra/PSA	37.8	21.8	9.0	7.6	0.4	16.0	9.4	9.8	14.4	0.4	14.4	7.2	9.4	157.6
Track Work - Foreign	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	4.0
Human Error - TOTAL	58.6	16.2	4.2	9.2	5.6	35.4	17.2	10.4	22.6	11.8	24.2	14.4	15.2	245.0
Human Error - Metra/PSA	40.2	13.4	4.0	8.2	1.4	22.6	10.6	4.6	22.2	2.4	22.2	11.0	8.2	171.0
Human Error - Foreign	18.4	2.8	0.2	1.0	4.2	12.8	6.6	5.8	0.4	9.4	2.0	3.4	7.0	74.0
Sick, Injured, Unruly Passenger - TOTAL	10.8	21.2	3.6	7.4	0.6	12.4	12.4	1.4	7.6	1.8	14.6	13.4	10.0	117.2
Sick, Injured, Unruly Passenger - Metra/PSA	10.4	21.2	3.6	7.4	0.6	12.4	12.4	1.4	7.2	1.8	14.6	13.4	10.0	116.4
Sick, Injured, Unruly Passenger - Foreign	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.8
Weather - TOTAL	153.6	98.0	27.8	35.4	4.8	90.8	82.2	25.6	101.8	21.2	77.0	88.0	76.6	882.8
Weather - Metra/PSA	152.4	98.0	27.8	35.4	4.4	87.6	81.6	25.2	101.6	20.0	77.0	88.0	76.0	875.0
Weather - Foreign	1.2	0.0	0.0	0.0	0.4	3.2	0.6	0.4	0.2	1.2	0.0	0.0	0.6	7.8
Passenger Loading - TOTAL	13.0	31.8	6.4	10.6	0.0	18.0	14.0	0.6	31.0	0.8	22.8	11.2	16.4	176.6
Lift Deployment - TOTAL	11.0	0.0	0.0 2.2	0.2	0.0	10.4	8.4	0.6	12.2	0.0	6.4	5.2	14.0	68.4
Obstruction/Debris - TOTAL	19.6	8.6		10.8	1.8	13.8	16.0	2.8	15.4	6.2	12.2	20.8	16.0	146.2
Catenary Failure - TOTAL Other - TOTAL	0.0 19.0	17.8 10.0	3.6 1.8	6.0 4.6	0.0 0.0	0.0 7.0	0.0 9.2	0.0 2.8	0.0 8.0	0.0 7.4	0.0 11.8	0.2 10.0	0.0 15.6	27.6 107.2
Other - TOTAL	19.0	10.0	1.8	4.0	0.0	7.0	9.2	2.8	8.0	7.4	11.8	10.0	13.0	107.2
TOTAL TRAINS DELAYED	568.4	273.4	81.2	110.0	40.4	469.0	337.4	174.8	338.6	153.2	261.8	274.2	340.6	3,423.0
Total Metra/PSA Delays	427.4	267.4	79.8	108.4	14.2	362.8	267.4	93.6	310.6	62.8	251.4	251.2	241.4	2,738.4
Total Foreign Carrier Delays	141.0	6.0	1.4	1.6	26.2	106.2	70.0	81.2	28.0	90.4	10.4	23.0	99.2	684.6

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

Data for latest month is final (05/21/15) version from TOPS.

P:\ONTIME\report\[DelaysByCause.xlsm]YTDByLine 05/16/2016

'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

January - April 2016 Divergence From January - April Average Over Previous Five Years Electric Milw Union Pacific														
			Electric			Mi	lw				U	nion Pacif	ïc	
CAUSE CATEGORY	BNSF	ML	BI	SC	HER	Ν	W	NCS	RI	SWS	Ν	NW	W	SYSTEM
Freight Interference - TOTAL	-34.6	0.0	0.0	0.0	-5.4	-40.4	-10.8	-48.6	21.0	-34.2	-8.2	-13.2	-66.8	-241.2
Freight Interference - Peak	-23.6	0.0	0.0	0.0	-7.4	-12.6	0.4	-21.4	12.4	-8.4	-1.2	-4.8	-12.2	-78.8
Primary	-10.0	0.0	0.0	0.0	-6.6	-8.2	-0.2	-14.8	7.4	-4.8	-0.6	-0.4	-7.4	-45.6
Secondary	-13.6	0.0	0.0	0.0	-0.8	-4.4	0.6	-6.6	5.0	-3.6	-0.6	-4.4	-4.8	-33.2
Freight Interference - Off-Peak	-11.0	0.0	0.0	0.0	2.0	-27.8	-11.2	-27.2	8.6	-25.8	-7.0	-8.4	-54.6	-162.4
Primary Secondary	-10.0 -1.0	0.0 0.0	0.0 0.0	0.0 0.0	2.0 0.0	-16.4 -11.4	-13.0 1.8	-21.2 -6.0	3.2 5.4	-20.8 -5.0	-4.2 -2.8	-7.2 -1.2	-45.0 -9.6	-132.6 -29.8
Signal/Switch Failure - TOTAL	32.6	9.0	-1.0	2.4	-0.8	-7.0	15.4	15.2	-5.6	4.4	-5.4	-0.4	46.2	105.0
Signal/Switch Failure - Metra/PSA	-20.8	9.0	-1.0	2.4	-4.0	-17.0	14.2	-5.6	-3.0	1.0	-5.2	-7.0	46.8	9.8
Primary	-12.8	-9.8	-4.4	-0.8	-3.8	-10.2	11.4	-4.0	-7.0	-1.6	-5.4	-4.6	-6.6	-59.6
Secondary	-8.0	18.8	3.4	3.2	-0.2	-6.8	2.8	-1.6	4.0	2.6	0.2	-2.4	53.4	69.4
Signal/Switch Failure - Foreign	53.4	0.0	0.0	0.0	3.2	10.0	1.2	20.8	-2.6	3.4	-0.2	6.6	-0.6	95.2
Primary	42.0	0.0	0.0	0.0	2.4	9.4	4.0	15.0	-1.2	3.8	-0.2	1.8	-0.6	76.4
Secondary	11.4	0.0	0.0	0.0	0.8	0.6	-2.8	5.8	-1.4	-0.4	0.0	4.8	0.0	18.8
Mechanical Failure - TOTAL	4.6	-8.4	-5.6	-5.4	4.8	-46.8	10.4	5.4	53.6	-11.8	11.6	-1.4	11.2	22.2
Mechanical Failure - Metra/PSA Non-Locomotive Equipment Failure - Metra/PSA	-11.0	-8.0	-5.0	-5.2	4.8	-42.4	-4.8	5.4	-8.8	-11.8	11.6 5.2	-1.4	11.4	29.0 -33.0
Primary	-11.0	-8.0	-5.0	-3.2	1.4 0.6	-1.4 1.4	-4.8 -1.6	1.4 0.0	-8.8 -4.2	-4.0	5.2 3.4	-4.2 -0.8	2.8	-35.0
Secondary	-10.0	-2.2	-2.0	-2.6	0.8	-2.8	-3.2	1.4	-4.6	-3.8	1.8	-0.8	2.8 9.2	-26.0
Locomotive Failure - Metra/PSA	16.0	0.0	0.0	0.0	3.4	-41.0	15.4	4.0	62.8	-7.2	6.4	2.8	-0.6	62.0
Primary	5.4	0.0	0.0	0.0	2.4	-5.8	5.0	1.2	5.0	-3.0	1.0	1.2	1.4	13.8
Secondary	10.6	0.0	0.0	0.0	1.0	-35.2	10.4	2.8	57.8	-4.2	5.4	1.6	-2.0	48.2
Mechanical Failure - Foreign	-0.4	-0.4	-0.6	-0.2	0.0	-4.4	-0.2	0.0	-0.4	0.0	0.0	0.0	-0.2	-6.8
Passenger Train Interference - TOTAL	-0.4	2.0	-0.2	-1.4	-0.4	-20.6	-5.6	1.4	0.8	-2.4	-4.4	-2.6	-6.0	-39.8
Passenger Train Interference - Metra/PSA	-0.8	-0.2	-0.6	-2.0	0.0	-16.2	-5.0	1.4	1.6	0.4	-4.4	-2.6	-5.8	-34.2
Passenger Train Interference - Foreign	0.4	2.2	0.4	0.6	-0.4	-4.4	-0.6	0.0	-0.8	-2.8	0.0	0.0	-0.2	-5.6
Accident - TOTAL	4.6	-7.6	-2.8	-2.8	0.6	7.6	-3.0	8.8	-8.4	5.6	5.0	-8.2	-10.0	-10.6
Accident - Metra/PSA	17.6	-7.6	-2.8	-2.8	0.6	-1.4	-2.6	5.0	-7.2	5.6	5.0	-11.2	-10.2	-12.0
Accident - Foreign	-13.0	0.0	0.0	0.0	-0.4	9.0	-0.4	-7.8	-1.2	0.0	0.0	3.0	0.2	1.4
Track Work - TOTAL Track Work - Metra/PSA	-5.6 -1.8	-14.8 -14.8	-8.0	0.4	-0.4	-13.0	9.6 7.6	-7.8	1.6	0.4	6.6 6.6	5.8 5.8	4.6	-20.6 -19.6
Track Work - Metra/PSA Track Work - Foreign	-1.8	-14.8	-8.0	0.4	-0.4	-13.0	2.0	-8.8	0.0	-0.2	0.0	0.0	4.6	-19.0
Human Error - TOTAL	-31.6	-13.2	-2.2	-6.2	-2.6	-19.4	-4.2	-2.4	9.4	-3.8	-15.2	-2.4	-6.2	-100.0
Human Error - Metra/PSA	-16.2	-10.4	-2.2	-5.2	-2.0	-12.6	-4.6	-2.4	9.8	-1.4	-17.2	1.0	-0.2	-61.0
Human Error - Foreign	-15.4	-2.8	-0.2	-1.0	-1.2	-6.8	0.4	-1.8	-0.4	-2.4	2.0	-3.4	-6.0	-39.0
Sick, Injured, Unruly Passenger - TOTAL	-5.8	6.8	0.4	-2.4	-0.6	-5.4	8.6	0.6	6.4	0.2	-4.6	7.6	7.0	18.8
Sick, Injured, Unruly Passenger - Metra/PSA	-5.4	6.8	0.4	-2.4	-0.6	-5.4	8.6	0.6	6.8	0.2	-4.6	7.6	7.0	19.6
Sick, Injured, Unruly Passenger - Foreign	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	0.0	0.0	0.0	0.0	-0.8
Weather - TOTAL	-56.6	-64.0	-21.8	-21.4	-4.8	-52.8	-64.2	-19.6	-55.8	-17.2	-57.0	-86.0	-71.6	-592.8
Weather - Metra/PSA	-55.4	-64.0	-21.8	-21.4	-4.4	-49.6	-63.6	-19.2	-55.6	-16.0	-57.0	-86.0	-71.0	-585.0
Weather - Foreign	-1.2	0.0	0.0	0.0	-0.4	-3.2	-0.6	-0.4	-0.2	-1.2	0.0	0.0	-0.6	-7.8
Passenger Loading - TOTAL	-10.0	-25.8	-3.4	-10.6	0.0	-14.0	-4.0	-0.6	-10.0	0.2	-19.8	-9.2	-12.4	-119.6
Lift Deployment - TOTAL	-4.0	1.0	0.0	-0.2	0.0	4.6	-5.4	0.4	-8.2	0.0	-6.4	-2.2	-8.0	-28.4
Obstruction/Debris - TOTAL	-6.6	14.4	4.8	0.2	-1.8	1.2	12.0	1.2	-9.4	1.8	-4.2	-13.8	-4.0	-4.2
Catenary Failure - TOTAL	0.0	-5.8	-2.6	-4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	0.0	-12.6
Other - TOTAL	-10.0	-10.0	-0.8	-4.6	0.0	1.0	-7.2	-0.8	-5.0	-5.4	-5.8	-8.0	-13.6	-70.2
TOTAL TRAINS DELAYED	-123.4	-116.4	-43.2	-56.0	-11.4	-205.0	-48.4	-46.8	-9.6	-62.2	-107.8	-134.2	-129.6	-1,094.0
Total Metra/PSA Delays	-108.4	-115.4	-42.8	-55.4	-7.2	-164.8	-39.4	-21.6	-24.6	-24.8	-101.4	-127.2	-55.4	-888.4
Total Foreign Carrier Delays	-15.0	-1.0	-0.4	-0.6	-4.2	-40.2	-9.0	-25.2	15.0	-37.4	-6.4	-7.0	-74.2	-205.6

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

 January - Anril 2016 Divergence From January - Anril Average Over Previous Five Vears

Data for current month is final (05/13/16) version from TOPS.

P:\ONTIME\report\[DelaysByCause.xlsm]YTDByLine 05/16/2016

'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

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

2016

· · · · · · · · · · · · · · · · · · ·					2010					1				
CAUSE CATEGORY	Jan	Feb	Mar	Apr	May J	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan -	
Freight Interference - TOTAL	82	53	43	44									222	9.5%
Freight Interference - Peak	32	17	14	9									72	3.1%
Primary	26	10	11	7									54	2.3%
Secondary	6	7	3	2									18	0.8%
Freight Interference - Off-Peak	50	36	29	35									150	6.4%
Primary Secondary	32 18	29 7	23 6	29 6									113 37	4.9%
														1.6%
Signal/Switch Failure - TOTAL	154	155	123	98									530	22.8%
Signal/Switch Failure - Metra/PSA	67	122	99	60									348	14.9%
Primary Secondary	35 32	30 92	52 47	41 19									158 190	6.8% 8.2%
Signal/Switch Failure - Foreign	87	33	24	38									182	7.8%
Primary	87 68	55 24	24 14	38 33									182	7.8% 6.0%
Primary Secondary	08 19	24 9	14 10	33 5									43	0.0% 1.8%
Mechanical Failure - TOTAL	107	68	131	43									349	15.0%
Mechanical Failure - Metra/PSA	107	68	131	42									348	14.9%
Non-Locomotive Equipment Failure - Metra/PSA	25	19	10	42 6									60	2.6%
Primary	23 11	19	4	5									29	2.0%
Secondary	14	10	4 6	1									31	1.2%
Locomotive Failure - Metra/PSA	82	49	121	36									288	12.4%
Primary	28	49	24	14									200	3.6%
Secondary	54	31	97	22									204	8.8%
Mechanical Failure - Foreign	0	0	0	1									1	0.0%
Passenger Train Interference - TOTAL	22	12	3	4									41	1.8%
Passenger Train Interference - Metra/PSA	13	5	2	3									23	1.0%
Passenger Train Interference - Foreign	9	7	1	1									18	0.8%
Accident - TOTAL	59	15	62	48									184	7.9%
Accident - Metra/PSA	49	13	62	41									166	7.1%
Accident - Foreign	10	1	02	7									18	0.8%
Track Work - TOTAL	40	21	36	44									141	6.1%
Track Work - Metra/PSA	40	21	36	41									138	5.9%
Track Work - Foreign	0	0	0	3									3	0.1%
Human Error - TOTAL	38	33	21	53									145	6.2%
Human Error - Metra/PSA	30	25	14	41									145	4.7%
Human Error - Foreign	8	8	7	12									35	1.5%
Sick, Injured, Unruly Passenger - TOTAL	20	39	27	50									136	5.8%
Sick, Injured, Unruly Passenger - Metra/PSA	20	39	27	50									130	5.8%
Sick, Injured, Unruly Passenger - Foreign	20	0	0	0									130	0.0%
Weather - TOTAL	129	132	28	1									290	12.5%
Weather - Metra/PSA	129	132	28	1									290	12.5%
	129	132	28 0	0									290	0.0%
Weather - Foreign	13	7	29	8									57	2.4%
Passenger Loading - TOTAL	13		29 12	8 3										
Lift Deployment - TOTAL	11	14 30	40										40	1.7%
Obstruction/Debris - TOTAL			-	54									142	6.1%
Catenary Failure - TOTAL	9	3	2	1									15	0.6%
Other - TOTAL	5	17	15	0									37	1.6%
TOTAL TRAINS DELAYED	707	599	572	451									2,329	100.0%
Total Metra/PSA Delays	511	497	497	345									1,850	79.4%
Total Foreign Carrier Delays	196	102	75	106									479	20.6%
Total Poleigli Callier Delays	190	102	13	100									4/9	20.0%

Data for current month is final (05/13/16) version from TOPS.

P:\ONTIME\report\[DelaysByCause.xlsm]AllMonths 05/16/2016

'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 & MONTH

2015

CAUSE CATEGORY Freight Interference - TOTAL	Jan 122	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan -	Ann
8	122							0						•
		158	113	87	59	90	116	89	84	60	65	49	480	15.7%
Freight Interference - Peak	35	48	42	36	23	42	38	31	27	12	29	8	161	5.2%
Primary	24	33	24	24	13	25	26	19	16	9	22	5	105	3.4%
Secondary	11	15	18	12	10	17	12	12	11	3	7	3	56	1.8%
Freight Interference - Off-Peak	87	110	71	51	36	48	78	58	57	48	36	41	319	10.4%
Primary Secondary	63 24	86 24	59 12	42 9	28 8	38 10	56 22	42 16	48 9	41 7	31 5	33 8	250 69	8.2% 2.2%
Signal/Switch Failure - TOTAL	93	126	35	69	69	79	116	87	64	84	63	53	323	10.5%
Signal/Switch Failure - Metra/PSA	73	83	28	53	54	79 67	103	68	04 51	74	39	42	237	7.7%
Primary	/ 5 38	83 54	28 25	29	54 30	42	63	32	51 34	74 35	39	42	257 146	7.7% 4.8%
Secondary	35	29	25	29	30 24	42 25	40	32 36	34 17	39	4	20 16	140 91	4.8%
Signal/Switch Failure - Foreign	20	43	7	16	15	12	13	19	13	10	24	11	86	2.8%
Primary	17	23	5	10	7	6	13	1)	9	7	24	8	57	2.070
Secondary	3	20	2	4	8	6	2	8	4	3	14	3	29	0.9%
Mechanical Failure - TOTAL	82	102	69	66	51	100	65	62	67	46	80	40	319	10.4%
Mechanical Failure - Metra/PSA	71	93	69	56	51	100	65	62	67	46	80	40	289	9.4%
Non-Locomotive Equipment Failure - Metra/PSA	27	19	22	17	8	35	28	11	11	5	12	8	85	2.8%
Primary	10	6	10	7	6	4	9	4	5	4	4	7	33	1.1%
Secondary	17	13	12	10	2	31	19	7	6	1	8	1	52	1.7%
Locomotive Failure - Metra/PSA	44	74	47	39	43	65	37	51	56	41	68	32	204	6.7%
Primary	16	25	14	17	15	14	15	22	24	14	20	18	72	2.3%
Secondary	28	49	33	22	28	51	22	29	32	27	48	14	132	4.3%
Mechanical Failure - Foreign	11	9	0	10	0	0	0	0	0	0	0	0	30	1.0%
Passenger Train Interference - TOTAL	13	19	6	7	16	27	12	10	3	8	9	10	45	1.5%
Passenger Train Interference - Metra/PSA	6	14	5	4	4	15	1	4	1	3	3	10	29	0.9%
Passenger Train Interference - Foreign	7	5	1	3	12	12	11	6	2	5	6	0	16	0.5%
Accident - TOTAL	29	35	60	60	20	59	29	13	27	73	44	50	184	6.0%
Accident - Metra/PSA	28	34	60	60	18	59	25	13	27	73	43	50	182	5.9%
Accident - Foreign	1	1	0	0	2	0	4	0	0	0	1	0	2	0.1%
Frack Work - TOTAL	38	50	19	52	57	49	85	79	60	71	34	23	159	5.2%
Track Work - Metra/PSA	38	32	19	52	57	49	71	73	58	71	34	23	141	4.6%
Track Work - Foreign	0	18	0	0	0	0	14	6	2	0	0	0	18	0.6%
Human Error - TOTAL	32	67	103	31	40	45	148	41	65	43	44	34	233	7.6%
Human Error - Metra/PSA	24	45	90	17	28	40	57	29	37	22	34	28	176	5.7%
Human Error - Foreign	8	22	13	14	12	5	91	12	28	21	10	6	57	1.9%
Sick, Injured, Unruly Passenger - TOTAL	21	25	20	29	24	36	36	28	22	27	19	25	95	3.1%
Sick, Injured, Unruly Passenger - Metra/PSA	21	25	20	29	24	36	36	28	21	27	19	25	95	3.1%
Sick, Injured, Unruly Passenger - Foreign	0	0	0	0	0	0	0	0	1	0	0	0	0	0.0%
Weather - TOTAL	335	395	17	10	3	59	17	22	22	12	83	39	757	24.7%
Weather - Metra/PSA	333	381	17	10	3	59	17	22	21	12	83	39	741	24.2%
Weather - Foreign	2	14	0	0	0	0	0	0	1	0	0	0	16	0.5%
Passenger Loading - TOTAL	20	21	42	21	44	98	124	101	23	27	21	38	104	3.4%
Lift Deployment - TOTAL	22	23	20	9	9	24	18	10	14	8	8	7	74	2.4%
Obstruction/Debris - TOTAL	31	71	8	34	48	49	34	61	30	44	25	52	144	4.7%
Catenary Failure - TOTAL	4	34	10	0	3	4	23	9	37	14	13	15	48	1.6%
Other - TOTAL	23	59	10	10	19	16	31	19	24	11	22	12	102	3.3%
FOTAL TRAINS DELAYED	865	1,185	532	485	462	735	854	631	542	528	530	447	3,067	100.0%
Total Metra/PSA Delays	694	915	398	355	362	616	605	499	411	432	424	381	2,362	77.0%
Total Foreign Carrier Delays	171	270	134	130	100	119	249	132	131	96	106	66	705	23.0%

Data for latest month is final (01/14/16) version from TOPS.

P:\ONTIME\report\[DelaysByCause.xlsm]AllMonths 05/16/2016

'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

TABLE 10.c:	FREQUENCY OF TRAIN DELAYS BY CAUSE & MONTH
	2016 Divergence From 2015

CAUSE CATEGORY Freight Interference - TOTAL Freight Interference - Peak	Jan	Feb	Mar	Apr	May J	un	Jul	Aug	Sep	Oct	Nov	Dec	Jan -	
0							oui		~~P		1101	Du		
Freight Interference - Peak	-40	-105	-70	-43									-258	-6.1%
5	-3	-31	-28	-27									-89	-2.2%
Primary	2	-23	-13	-17									-51	-1.1%
Secondary	-5	-8	-15	-10									-38	-1.1%
Freight Interference - Off-Peak	-37	-74	-42	-16									-169	-4.0%
Primary	-31	-57	-36	-13									-137	-3.3%
Secondary	-6	-17	-6	-3									-32	-0.7%
Signal/Switch Failure - TOTAL	61	29	88	29									207	12.2%
Signal/Switch Failure - Metra/PSA	-6	39	71	7									111	7.2%
Primary	-3	-24	27	12									12	2.0%
Secondary	-3	63	44	-5									99	5.2%
Signal/Switch Failure - Foreign	67	-10	17	22									96	5.0%
Primary Secondary	51 16	1 -11	9 8	21									82 14	4.1% 0.9%
				-										
Mechanical Failure - TOTAL	25	-34	62	-23									30	4.6%
Mechanical Failure - Metra/PSA	36	-25	62	-14									59	5.5%
Non-Locomotive Equipment Failure - Metra/PSA		0	-12	-11									-25	-0.2%
Primary	1	3	-6 -6	-2 -9									-4	0.2%
Secondary	-3	-3											-21	-0.4%
Locomotive Failure - Metra/PSA	38	-25	74	-3									84	5.7%
Primary Secondary	12 26	-7 -18	10 64	-3 0									12 72	1.3% 4.5%
		-18	04	-9										
Mechanical Failure - Foreign	-11	-9	-3	-3									-29	-0.9%
Passenger Train Interference - TOTAL	-		-										-	0.3%
Passenger Train Interference - Metra/PSA	7	-9	-3	-1									-6	0.0%
Passenger Train Interference - Foreign	2	2	0	-2									2	0.3%
Accident - TOTAL	30	-20	2	-12									0	1.9%
Accident - Metra/PSA	21	-20	2	-19									-16	1.2%
Accident - Foreign	9	0	0	7									16	0.7%
Frack Work - TOTAL	2	-29	17	-8									-18	0.9%
Track Work - Metra/PSA	2	-11	17	-11									-3	1.3%
Track Work - Foreign	0	-18	0	3									-15	-0.5%
Human Error - TOTAL	6	-34	-82	22									-88	-1.4%
Human Error - Metra/PSA	6	-20	-76	24									-66	-1.0%
Human Error - Foreign	0	-14	-6	-2									-22	-0.4%
Sick, Injured, Unruly Passenger - TOTAL	-1	14	7	21									41	2.7%
Sick, Injured, Unruly Passenger - Metra/PSA	-1	14	7	21									41	2.7%
Sick, Injured, Unruly Passenger - Foreign	0	0	0	0									0	0.0%
Weather - TOTAL	-206	-263	11	-9									-467	-12.2%
Weather - Metra/PSA	-204	-249	11	-9									-451	-11.7%
Weather - Foreign	-2	-14	0	0									-16	-0.5%
Passenger Loading - TOTAL	-7	-14	-13	-13									-47	-0.9%
Lift Deployment - TOTAL	-11	-9	-8	-6									-34	-0.7%
Destruction/Debris - TOTAL	-13	-41	32	20									-2	1.4%
Catenary Failure - TOTAL	5	-31	-8	1									-33	-0.9%
Other - TOTAL	-18	-42	5	-10									-65	-1.7%
FOTAL TRAINS DELAYED	-158	-586	40	-34									-738	
Total Metra/PSA Delays	-183	-418	99	-10									-512	
Total Foreign Carrier Delays	25	-168	-59	-24									-226	

Data for current month is final (05/13/16) 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.

Detween May 2014 and April 2016														
]	Electric			Mi	lw				Union Pacific			
	BNSF	ML	BI	SC	HER	Ν	W	NCS	RI	SWS	Ν	NW	W	SYSTEM
May-14	61	0	0	0	5	25	31	20	3	19	1	2	10	177
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
Total	313	0	0	0	36	185	234	179	46	223	25	71	248	1,560
May-15	20	0	0	0	4	5	2	8	2	9	0	3	6	59
Jun-15	12	0	0	0	4	11	1	9	3	24	0	6	20	90
Jul-15	23	0	0	0	1	11	0	3	12	17	0	18	31	116
Aug-15	13	0	0	0	8	7	5	11	4	17	0	0	24	89
Sep-15	20	0	0	0	1	9	6	11	14	6	0	2	15	84
Oct-15	16	0	0	0	0	5	4	3	3	11	0	3	15	60
Nov-15	15	0	0	0	7	0	4	7	5	10	3	6	8	65
Dec-15	9	0	0	0	2	4	4	5	4	5	0	1	15	49
Jan-16	14	0	0	0	1	4	23	5	24	3	0	3	5	82
Feb-16	11	0	0	0	3	5	6	1	16	2	0	2	7	53
Mar-16	4	0	0	0	2	6	8	6	2	7	0	0	8	43
Apr-16	13	0	0	0	3	8	4	3	1	8	0	1	3	44
Total	170	0	0	0	36	75	67	72	90	119	3	45	157	834

TABLE 11: FREIGHT DELAYSbetween May 2014 and April 2016

Data for current month is final (05/13/16) version from TOPS.

P:\ONTIME\report\[DelaysByCause.xlsm]Freight- YTD, 2 yrs 05/16/2016

TABLES 12.a & 12.b: FREQUENCY OF LIFT-DEPLOYMENT TRAIN DELAYS BY LINE & MONTH
2016

						201								
LINE	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Lift Delays YTD	% of All Delays YTD
BNSF	5	1	1	0									7	1.57%
Electric ML	1	0	0	0									1	0.64%
Electric BI	0	0	0	0									0	0.00%
Electric SC	0	0	0	0									0	0.00%
HER	0	0	0	0									0	0.00%
Milw N	1	6	8	0									15	5.68%
Milw W	0	0	1	2									3	1.04%
NCS	0	1	0	0									1	0.78%
RI	2	2	0	0									4	1.22%
SWS	0	0	0	0									0	0.00%
UP N	0	0	0	0									0	0.00%
UP NW	1	0	2	0									3	2.14%
UP W	1	4	0	1									6	2.84%
Total Lift Delays	11	14	12	3									40	1.72%
ALL DELAYS														2,329

Data for current month is final (05/13/16) version from TOPS.

						201								
													Lift Delays	% of All Delays
LINE	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	All Year	All Year
BNSF	6	7	8	1	1	2	7	1	3	3	1	0	40	2.70%
Electric ML	0	0	0	0	0	1	2	0	0	0	0	0	3	0.41%
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	0	0	0	0	0	0	0.00%
HER	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Milw N	4	9	0	1	2	2	0	0	2	1	2	0	23	2.51%
Milw W	4	1	1	1	1	11	2	3	0	1	1	1	27	4.35%
NCS	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
RI	0	1	1	0	1	0	5	1	2	1	0	1	13	2.17%
SWS	0	0	0	0	1	0	0	0	0	0	0	0	1	0.23%
UP N	0	0	0	1	2	1	2	2	5	0	0	0	13	2.56%
UP NW	5	0	1	3	1	3	0	1	2	1	2	1	20	2.79%
UP W	3	5	9	2	0	4	0	2	0	1	2	4	32	4.06%
Total Lift Delays	22	23	20	9	9	24	18	10	14	8	8	7	172	2.21%
ALL DELAYS														7,796

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05/16/2016

	April 2016														
Minutes	BNSF	Electric		Her	Milwa		NCS	RI	SWS		UP		System		
		ML	BI	SC		Ν	W				Ν	NW	W		
Peak *															
6-10	15	10	2	0	1	6	6	6	15	3	4	9	9	86	
11-15	4	3	0	1	1	3	0	0	9	1	2	5	5	34	
16-20	5	1	1	0	0	0	0	1	6	0	0	2	1	17	
21+	12	7	0	0	0	0	6	6	14	0	2	1	3	51	
Annulled	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>4</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>5</u>	
Sub-Total	36	21	3	1	2	9	16	14	44	4	8	17	18	193	
Off-Peak *	*														
6-10	12	9	1	3	1	17	11	4	8	12	6	7	10	101	
11-15	7	1	1	0	0	10	10	5	2	5	6	1	4	52	
16-20	6	0	0	0	1	3	4	4	3	3	6	0	4	34	
21+	7	6	3	1	0	5	13	4	3	5	2	5	7	61	
Annulled	1	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	2	2	<u>0</u>	1	<u>0</u>	<u>1</u>	<u>0</u>	3	10	
Sub-Total	33	16	5	4	2	37	40	17	17	25	21	13	28	258	
April 2016		10	U	·	_	01	10	17	17	20	21	10	20	200	
6-10	27	19	3	3	2	23	17	10	23	15	10	16	19	187	
11-15	11	4	1	1	1	13	10	5	23 11	6	8	6	9	86	
16-20	11	4	1	0	1	3	4	5	9	3	o 6	2	5	51	
21+	11		3	1	1 0	5 5			9 17	5 5	0 4	2 6			
	-	13					19	10					10	112	
Annulled	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>6</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>3</u>	<u>15</u>	
TOTAL	69	37	8	5	4	46	56	31	61	29	29	30	46	451	
2016 Year-															
6-10	189	76	22	26	10	106	79	46	138	45	41	55	77	910	
11-15	88	34	3	7	7	56	66	25	59	12	28	31	43	459	
16-20	37	12	1	4	2	32	31	19	42	9	16	16	16	237	
21+	96	33	12	12	7	60	96	34	80	25	56	30	58	599	
Annulled	<u>35</u>	<u>2</u>	<u>0</u>	<u>5</u>	<u>3</u>	<u>10</u>	<u>17</u>	<u>4</u>	<u>10</u>	<u>0</u>	<u>13</u>	<u>8</u>	<u>17</u>	<u>124</u>	
TOTAL	445	157	38	54	29	264	289	128	329	91	154	140	211	2,329	
		PE	RCENT	COMP	OSITI	ON OF I	DELAY	S BY R	ANGE	OF DUI	RATIO	N			
PERCENT COMPOSITION OF DELAYS BY RANGE OF DURATION															
Minutes	BNSF		Electric		Her	Milwa		NCS	RI	SWS		UP		System	
		ML	BI	SC		Ν	W				Ν	NW	W		
April 2016	Total														
6-10	39.1%	51.4%	37.5%	60.0%	50.0%	50.0%	30.4%	32.3%	37.7%	51.7%	34.5%	53.3%	41.3%	41.5%	
11-15	15.9%	10.8%	12.5%	20.0%	25.0%	28.3%	17.9%	16.1%	18.0%	20.7%	27.6%	20.0%	19.6%	19.1%	
16-20	15.9%	2.7%	12.5%	0.0%	25.0%	6.5%	7.1%	16.1%	14.8%	10.3%	20.7%	6.7%	10.9%	11.3%	
21+	27.5%	35.1%	37.5%	20.0%	0.0%	10.9%	33.9%	32.3%	27.9%	17.2%	13.8%	20.0%	21.7%	24.8%	
Annulled	<u>1.4%</u>	0.0%	0.0%	0.0%	0.0%	4.3%	10.7%	3.2%	1.6%	0.0%	<u>3.4%</u>	0.0%	<u>6.5%</u>	<u>3.3%</u>	
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%	
2016 Year-	to-Date L	Delays B	v Duratio	on											
6-10	42.5%	48.4%	57.9%	48.1%	34.5%	40.2%	27.3%	35.9%	41.9%	49.5%	26.6%	39.3%	36.5%	39.1%	
11-15	19.8%	21.7%	7.9%	13.0%	24.1%	21.2%	22.8%	19.5%	17.9%	13.2%	18.2%	22.1%	20.4%	19.7%	
16-20	8.3%	7.6%	2.6%	7.4%	6.9%	12.1%	10.7%	14.8%	12.8%	9.9%	10.2%	11.4%	7.6%	10.2%	
21+	21.6%	21.0%	31.6%	22.2%	24.1%	22.7%	33.2%	26.6%	24.3%	27.5%	36.4%	21.4%	27.5%	25.7%	
Annulled	21.0% 7.9%	<u>1.3%</u>	0.0%	<u>9.3%</u>	<u>10.3%</u>	<u>3.8%</u>	<u>5.9%</u>	<u>3.1%</u>	<u>3.0%</u>	0.0%	<u>8.4%</u>	<u>5.7%</u>	<u>8.1%</u>	<u>5.3%</u>	
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%	

TABLE 13: FREQUENCY OF TRAIN DELAYS BY DURATION April 2016

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

Data for most recent month is final (05/13/16) version from TOPS.

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

	BNSF]	Electric		Her	Milwa	aukee	NCS	RI	SWS	UP			System
	-	ML	BI	SC		Ν	W				Ν	NW	W	Ĩ
April 2016														
Peak *	23.8	15.7	10.0	13.0	10.0	8.7	48.6	33.3	21.1	9.5	16.6	13.0	14.1	20.8
Off-Peak **	18.0	16.9	33.8	11.3	14.5	13.2	19.9	18.1	14.3	24.4	14.5	23.1	23.6	18.7
All	21.1	16.2	24.9	11.6	12.3	12.3	26.8	24.7	19.3	22.3	15.1	17.4	19.6	19.6
2016 Year-t	to-Date													
Peak *	18.5	13.5	18.8	14.4	22.2	18.4	24.9	21.4	19.1	15.5	35.8	14.1	23.2	20.0
Off-Peak **	19.0	15.6	21.3	15.5	14.5	18.5	18.6	16.1	16.1	20.8	19.2	20.9	21.5	18.6
All	18.7	14.3	20.2	15.4	21.6	18.5	20.9	18.8	17.9	19.4	25.8	17.7	22.3	19.3

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.

Data for most recent month is final (05/13/16) version from TOPS.

 $P: ONTIME \ report \ Delays By Duration.xls] Minutes By ServPeriod 5/16/2016$