

JULY 2018



**WIM #32
US 52, MP 66.0
ORONOCO, MN**

**MONTHLY
REPORT**



Your Destination...Our Priority



WIM Site Location

WIM #32 is located on US 52 near Oronoco in Olmsted county.

System Operation

WIM #32 was operational for the entire month of July 2018. Volume was computed using all monthly data.

System Calibration

WIM #32 was most recently calibrated on 2017-05-05. Table 1 summarizes the front axle weights of class 9s by lane ¹. Table 1 indicates that the class 9 front axle weights were all within +/- 9% of baseline calibration values for all lanes. Figure 1 shows the distribution of gross vehicle weights (GVW) in Class 9 vehicles at this site for the last 12 months of operation ². Figure 2 depicts the average front axle weight as a percent difference from the first full month following calibration.

Summary of Volume Statistics

Total Monthly Volume: 1120144 | Passenger Vehicles: 1034542 | Heavy Commercial Vehicles: 85602

Monthly Average Daily Traffic (MADT): 36134 | Monthly Heavy Commercial Average Daily Traffic (MHCADT): 2761

See Table 2 for vehicle class breakdown

Passenger Vehicles (PVs) and Heavy Commercial Vehicles (HCVs)

Volume trends. NB vehicles typically reached highest volume levels on Fridays, with lowest volumes reported on Wednesdays. SB vehicles typically reached highest volume levels on Fridays, with lowest volumes reported on Wednesdays (see Figure 3 and 4).

Passenger Vehicles (PVs)

Volume trends. On an average 24-hour day (see Figure 5), NB PVs generally reached peak volume levels between 03 PM and 05 PM. Similarly, SB PVs peaked in volume between 03 PM and 05 PM

Heavy Commercial Vehicles (HCVs)

Volume trends. On an average 24-hour day, HCVs traveling NB typically reached peak volume levels between 03 PM and 05 PM, while volume going SB peaked between 03 PM and 05 PM. See Figure 6. Out of all HCVs, the two highest traffic volumes were generated by Class 9's and Class 5's.

Overweight HCVs

Volume trends. Of a total of 85602 HCVs, 2855 of them were overweight³. These overweight HCVs contributed to 0.3% of total monthly volume, and 3.4% of total monthly HCV volume. NB overweight vehicles typically reached highest numbers on Tuesdays, with lowest volumes reported on Sundays. SB overweight vehicles tended to reach highest volumes on Tuesdays, with lowest volumes reported on Sundays. See Figure 3 .

The top two overweight violators by class were the class 9 and class 10 vehicles . Overall, overweight vehicles tended to reach peak volume concentrations during typical business hours, with 62.5% of all overweight vehicles traveling NB this month (see Figure 7 & 8). Figure 9 shows the number of vehicles exceeding 88,000 pounds that crossed the WIM over the last 12 months. The highest number of 88,000+ vehicles within the last 12 months occurred in June.

WIMs are currently used as a screening tool for weight enforcement, and it is estimated that the WIM scales can measure gross vehicle weights (GVW) within 90-95% of static weight scale measurements. Due to the possibility of measurement error, vehicles exceeding 10% of their legal weight limits (or 1.1 times their legal weight limits) are considered overweight in this report⁴.

Using normal load limits ,122 NB vehicles exceeded 88,000 pounds (77 vehicles were Class 13's; 36 vehicles were Class 10's). Of vehicles traveling SB,

104 NB vehicles exceeded 88,000 pounds (74 vehicles were Class 13's; 23 vehicles were Class 10's). Refer to Table 3 for the Top 10 highest recorded GVWs from Classes 9 and 10 from July 2018.

Loaded vs. Unloaded HCVs. Figure 10 shows the GVW distributions of Class 9s and 10s in July 2018. Data suggests that there were greater numbers of fully_loaded Class 9's than empty Class 9's traveling NB, while there were more fully_loaded Class 9's than empty traveling SB. Data also suggests that there were more empty Class 10's than fully_loaded traveling in the NB direction. In the SB direction, there were more fully_loaded class 10 vehicles.

Freight Totals. A total of 655090 tons of freight was recorded to have crossed the WIM. More freight was shipped NB (51.5%) than SB (48.5%). See Table 4 and Figure 11 for more freight information.

Infrastructure Considerations

Bridge. Bridge No. 55X13 (a box culvert) is approximately 1/3 of a mile north of WIM #32, and Bridge No. 8960 (a box culvert) is approximately 1 ¾ miles south of WIM #32. WIM #32 recorded a total of 1120144 vehicles with a combined GVW of 7809531 kips (1 kip = 1,000 pounds = 0.5 tons) in July 2018. See Table 5 and Figures 12-13 for GVW information by vehicle class and lane.

Pavement Design. A total of 50024 equivalent single axle loads (ESALs) passed over the pavement at this site. Approximately 52.5% of all ESALs were recorded NB while 47.5% was observed SB. In particular, 75% of all ESALs were generated by the Class 9's (Class 9's were also responsible for generating 32% of total GVW observed this month). See Table 6

and Figures 14-15 for more information on ESALs (Table 6 also provides flexible ESAL factors for each vehicle class using a terminal serviceability of 2.5 and a structural number of 5).

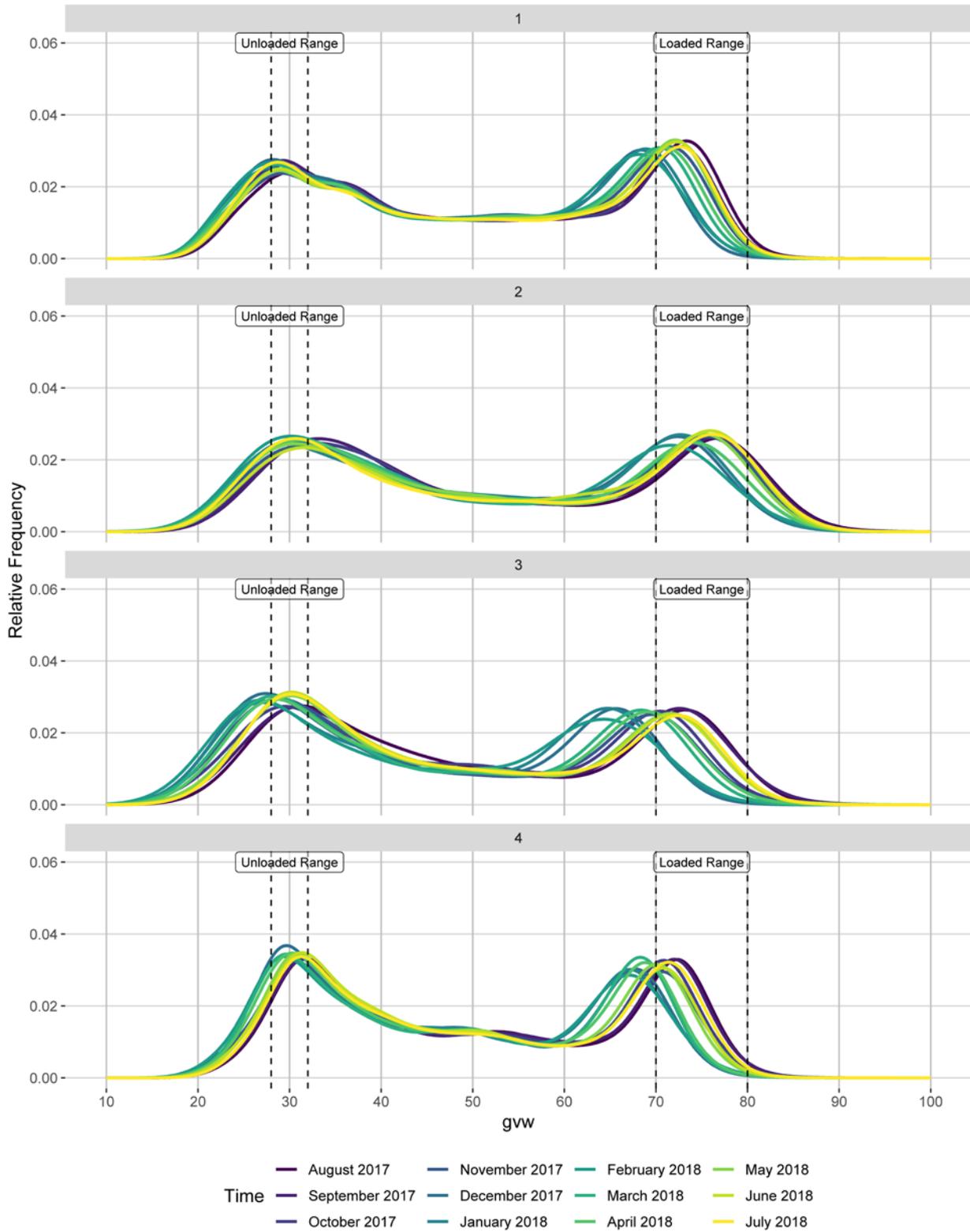
WIM monthly reports can be found at: <http://www.dot.state.mn.us/traffic/data/reports-monthly-wim.html>

MnDOT's vehicle classification scheme and vehicle class groupings for traffic forecasting can be found at: <http://www.dot.state.mn.us/traffic/data/data-products.html#weight>

- ¹ Front axle weights of Class 9s are monitored on a monthly basis to assure performance between calibrations. The current goal of the WIM scale calibration is to have each individual axle weight stay within a range of ±9% of baseline calibration values
- ² Previous WIM research indicates that unloaded Class 9s typically weigh 28-32 kips, while loaded Class 9s generally fall in the 70-80 kip range. More recent data from several WIM sites suggests that the unloaded Class 9 range may have moved a little higher over time (due to increased presence of sleeper cabs, etc.), although these ranges are also thought to be site-specific.
- ³ An HCV is considered overweight during normal load limits in this report if they satisfy any of the following 1) exceed a gross vehicle weight (GVW) of 80,000 pounds, 2) exceed any of the legal weight maximums on any axle configurations (legal maximums are: single axle = 20,000 pounds; tandem axles spaced 8' or less = 34,000 pounds; tridem axles spaced 9' or less = 43,000 pounds; quad axles spaced 13' or less = 51,000 pounds). Monthly reports use this standard regardless of the time of year however, the Winter Load Increase (WLI) allows a 10% across the board increase in axle and gross vehicle weights without a permit on US, state routes, and county roads. An HCV is considered overweight during Winter Load Increase(WLI) if they satisfy any of the following 1) exceed a gross vehicle weight (GVW) of 88,000 pounds, 2) exceed any of the legal weight maximums on any axle configurations (legal maximums are: single axle = 22,000 pounds; tandem axles spaced 8' or less = 37,400 pounds; tridem axles spaced 9' or less = 47,300 pounds; quad axles spaced 13' or less = 56,100 pounds). An overweight HCV is only included once in the overweight volume calculations regardless of how many of the aforementioned conditions are violated. For information on MN weight limit dates and statutes: http://www.mrr.dot.state.mn.us/research/seasonal_load_limits/sllindex.asp
- ⁴ For example, Class 9s and 10s can legally have gross vehicle weights up to 80,000 lbs (with the exception of permitted loads) during normal load limits. To account for measurement error on the WIM scales, those exceeding 10% of the legal GVW maximum (or 1.1 times the legal GVW) should be screened (e.g., 80,000 lbs + 8,000 lbs = 88,000 lbs). Similarly during WLI vehicles weighing 96,800 lbs should be screened.

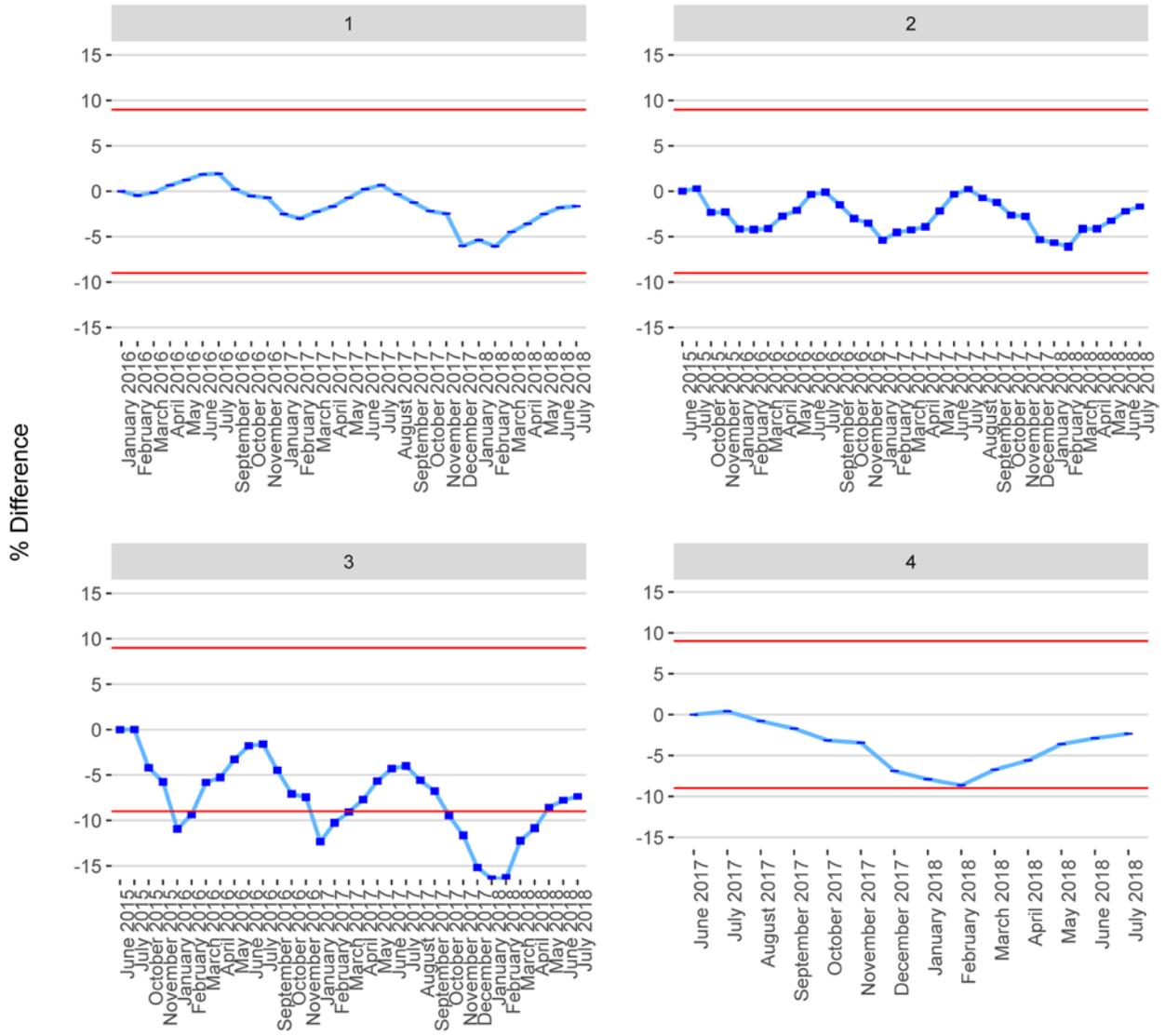
To request this document in an alternative format, please call 651-366-4718 or 1-800-657-3774, or email your request to ADArequest.dot@state.mn.us. Please request at least one week in advance.

Figure 1 - Monthly Class 9 GWW Histogram



Months that have not passed QC parameters are not displayed

Figure 2 - Percent Difference of Front Axle Weight from Last Calibration (+/- 95% CI)



Months that have not passed QC parameters are not displayed

Figure 2 - Average Vehicle Volume vs. Day of the Week

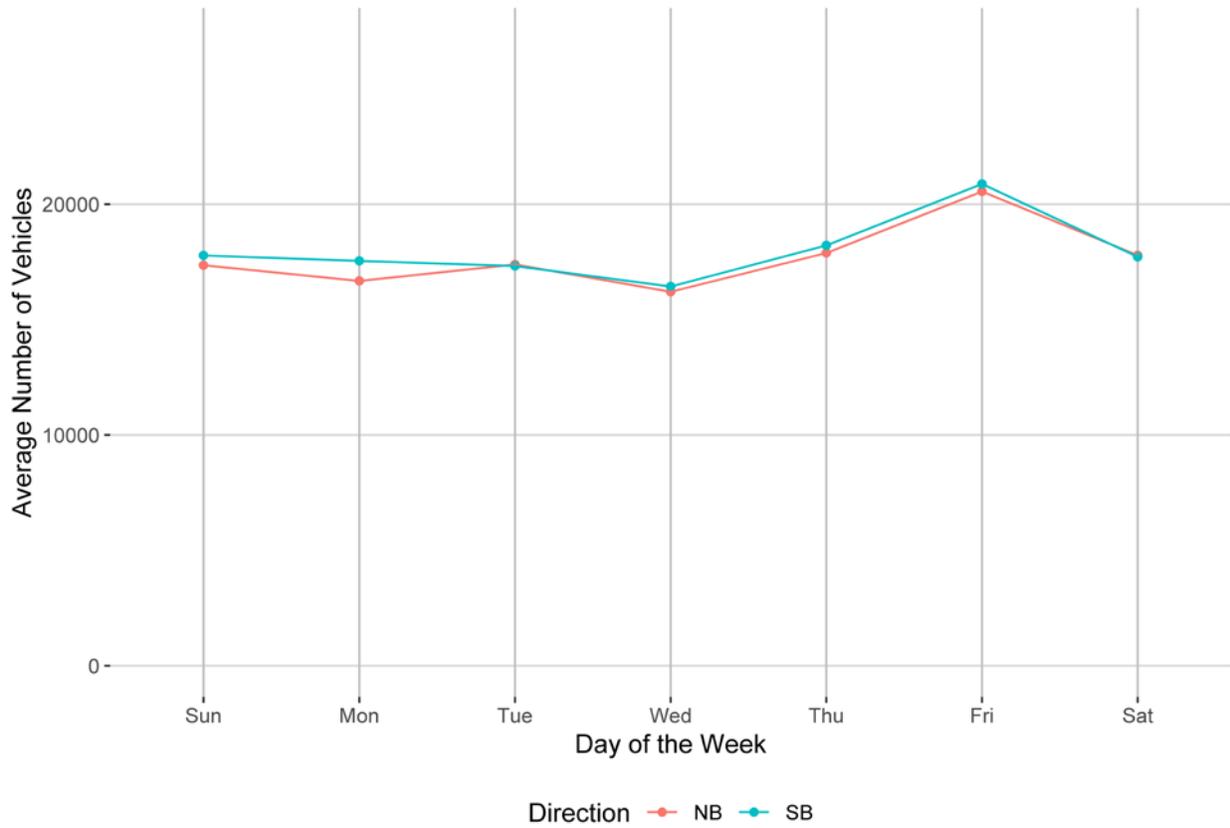


Figure 3 - Average Overweight Vehicle Volume vs. Day of the Week

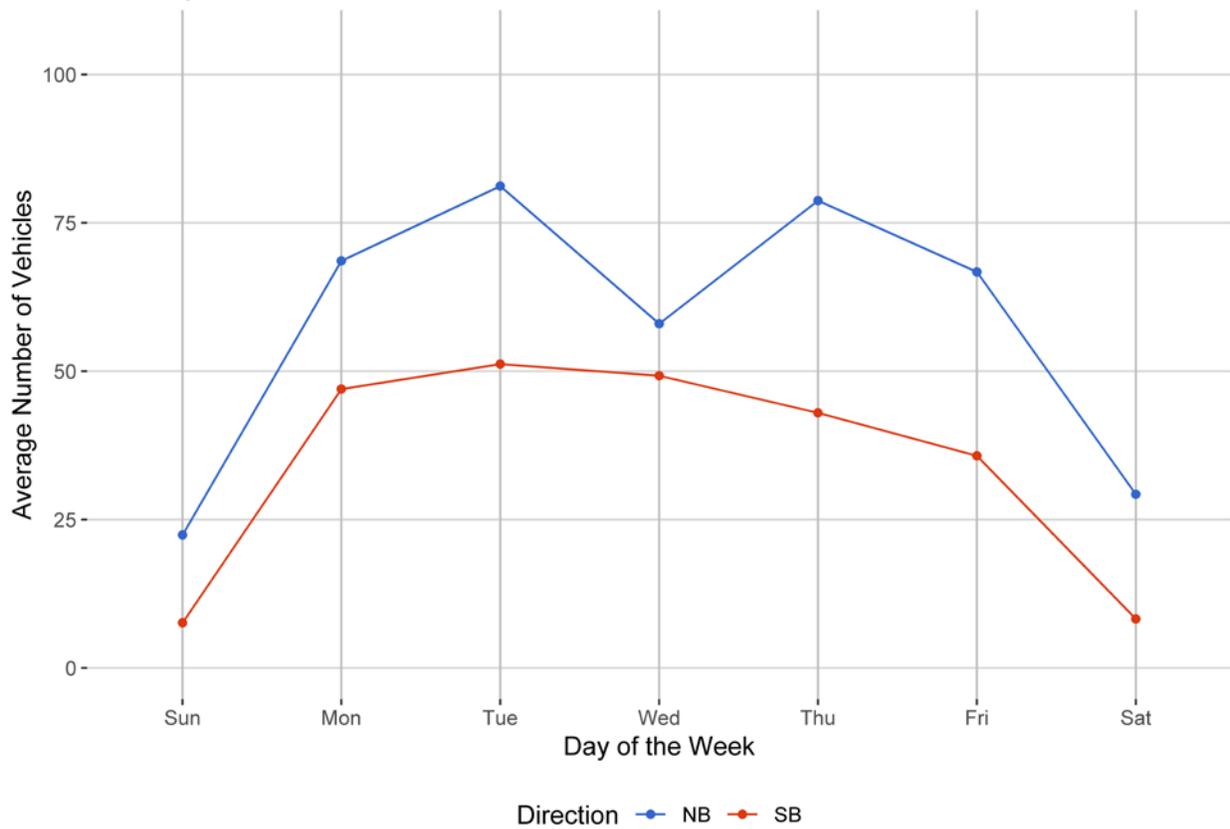


Figure 4 - Passenger Vehicles vs. Hour of the Day

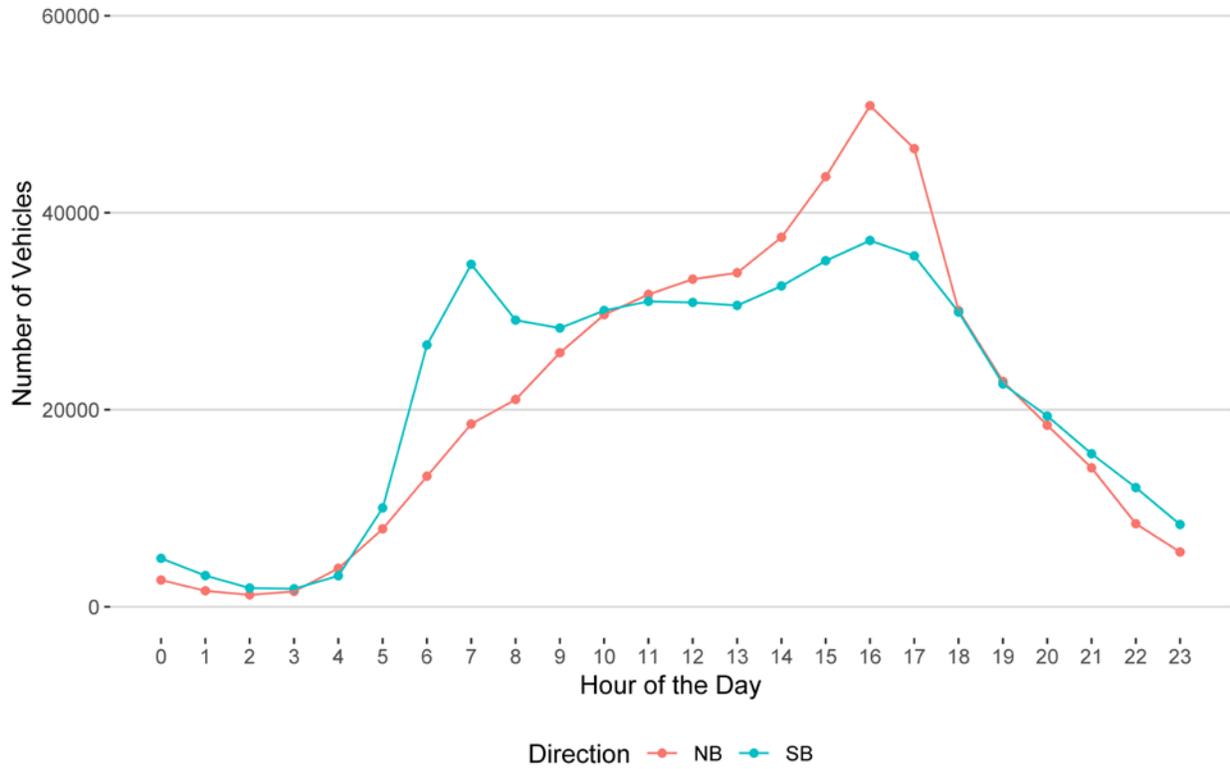


Figure 5 - Heavy Commercial Vehicles vs. Hour of the Day

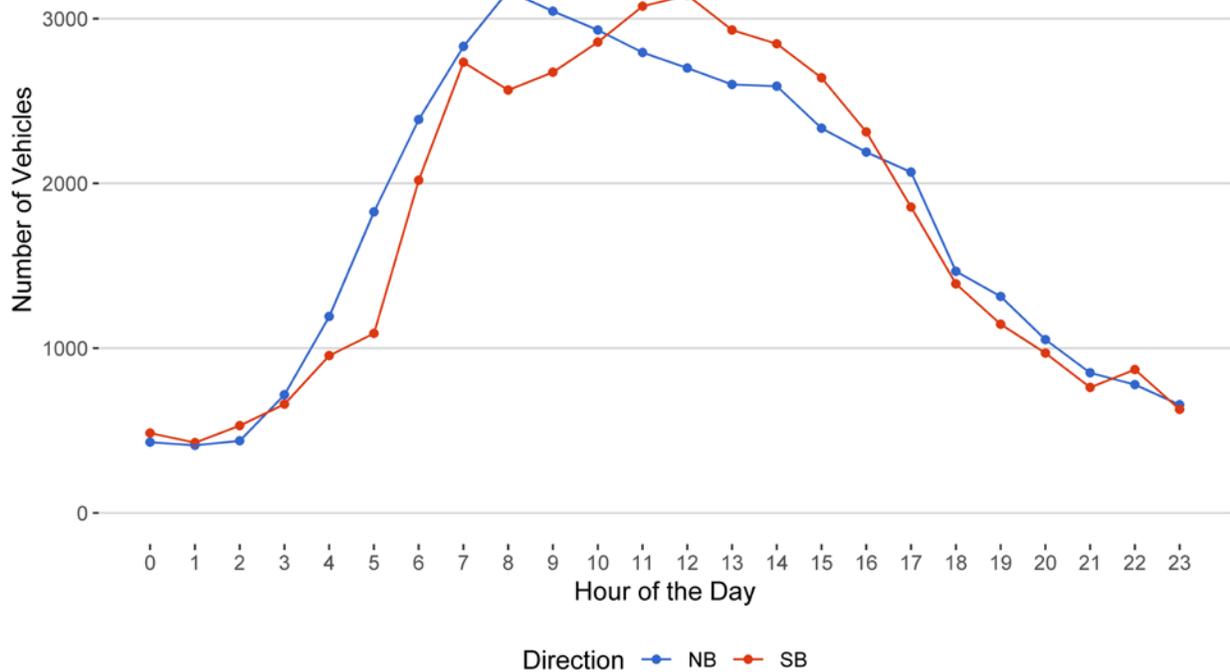


Figure 6 - Overweight Vehicles by Class vs. Hour of the Day

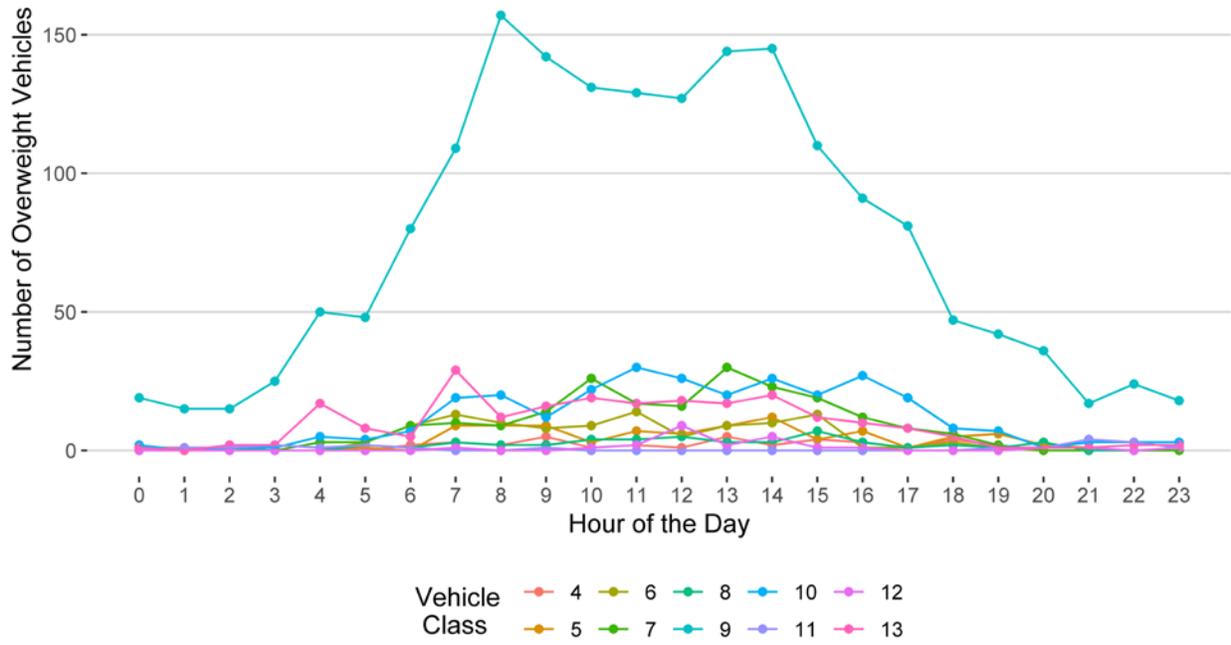


Figure 7 - Overweight Vehicles by Direction
Hour of the Day

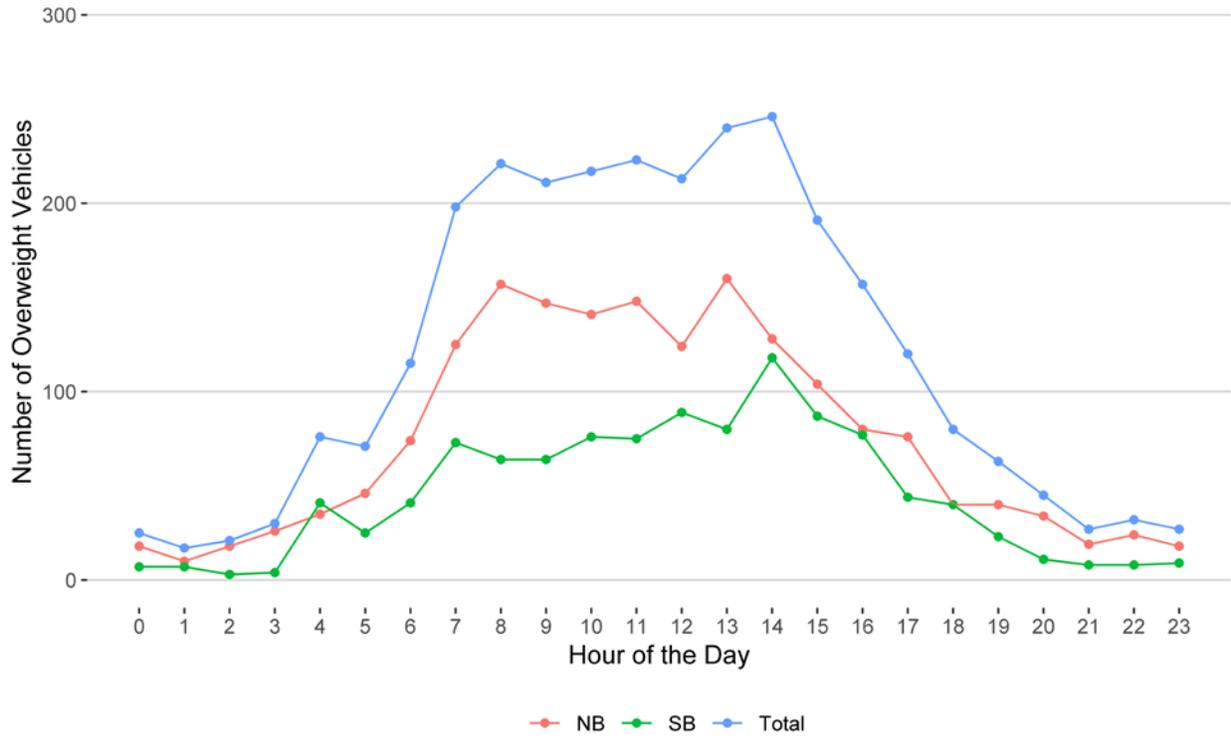
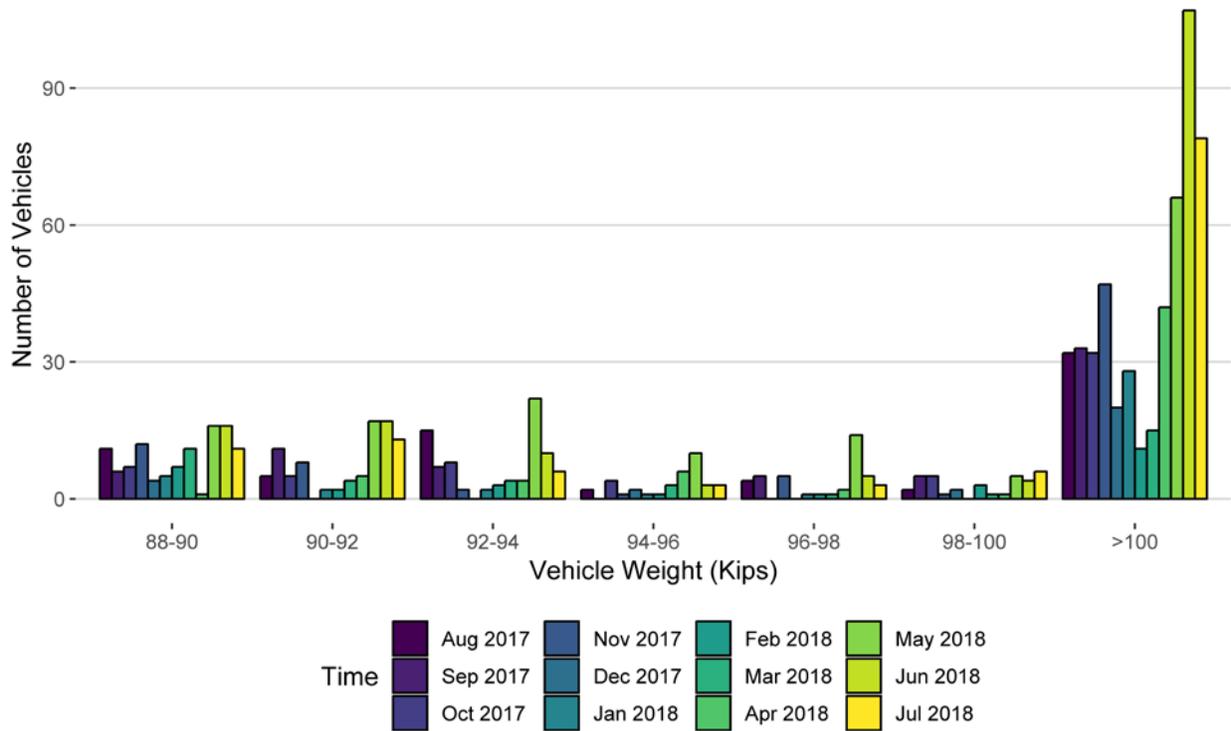
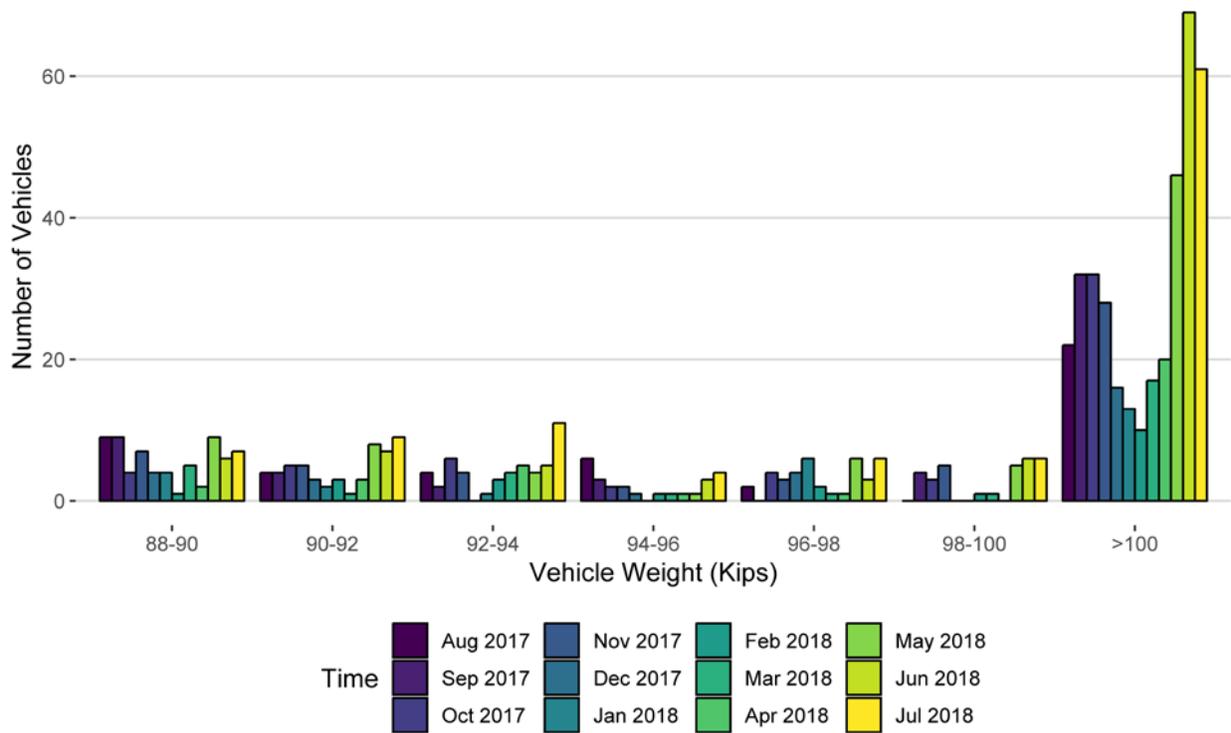


Figure 8 - Histogram of NB Vehicles Over 88,000 Pounds for Current Month



Vehicle Weights (Kips)	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018
88-90	11	6	7	12	4	5	7	11	1	16	16	11
90-92	5	11	5	8	0	2	2	4	5	17	17	13
92-94	15	7	8	2	0	2	3	4	4	22	10	6
94-96	2	0	4	1	2	1	1	3	6	10	3	3
96-98	4	5	0	5	0	1	1	1	2	14	5	3
98-100	2	5	5	1	2	0	3	1	1	5	4	6
>100	32	33	32	47	20	28	11	15	42	66	107	79
Total	71	67	61	76	28	39	28	39	61	150	162	121

Figure 8 - Histogram of SB Vehicles Over 88,000 Pounds for Current Month



Vehicle Weights (Kips)	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018
88-90	9	9	4	7	4	4	1	5	2	9	6	7
90-92	4	4	5	5	3	2	3	1	3	8	7	9
92-94	4	2	6	4	0	1	3	4	5	4	5	11
94-96	6	3	2	2	1	0	1	1	1	1	3	4
96-98	2	0	4	3	4	6	2	1	1	6	3	6
98-100	0	4	3	5	0	0	1	1	0	5	6	6
>100	22	32	32	28	16	13	10	17	20	46	69	61
Total	47	54	56	54	28	26	21	30	32	79	99	104

Figure 8 - Class 9's and 10's by Direction vs Gross Vehicle Weight

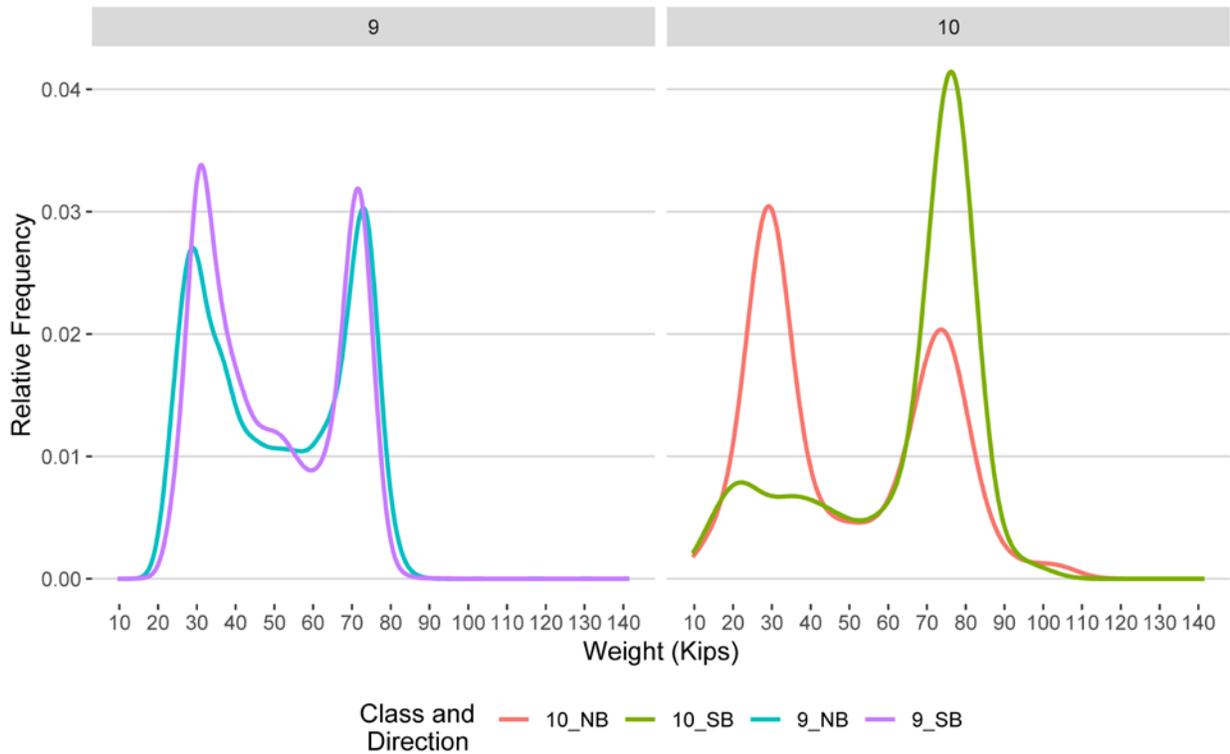


Figure 9 - Freight Percentage by Direction and Class

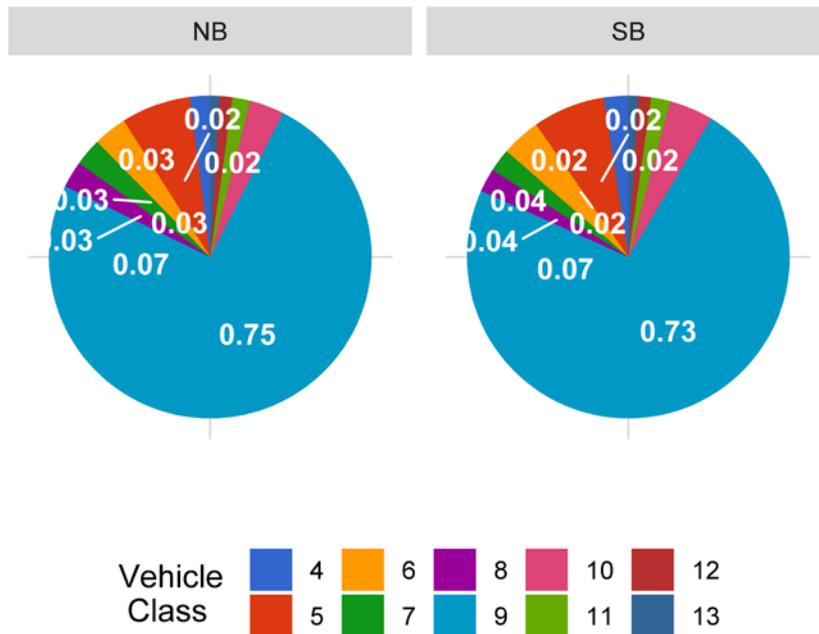


Figure 10 - Total Gross Vehicle Weight Percentage by Class and Lane

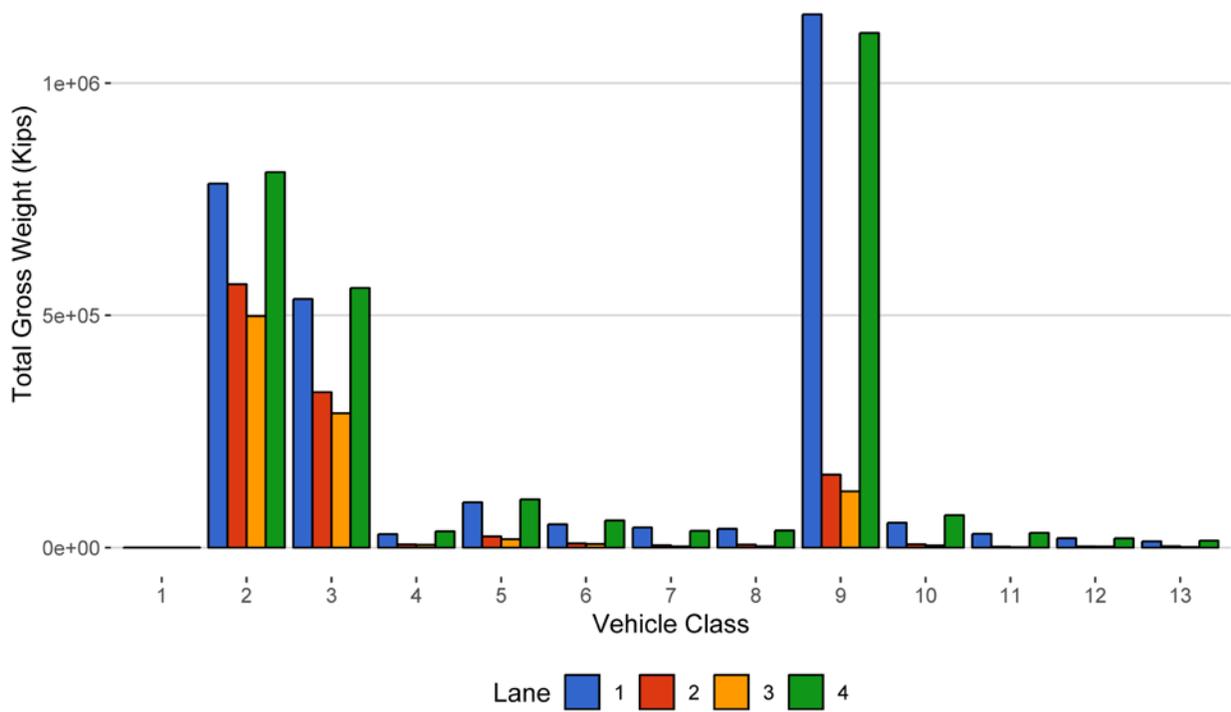


Figure 11 - Total Gross Vehicle Weight t

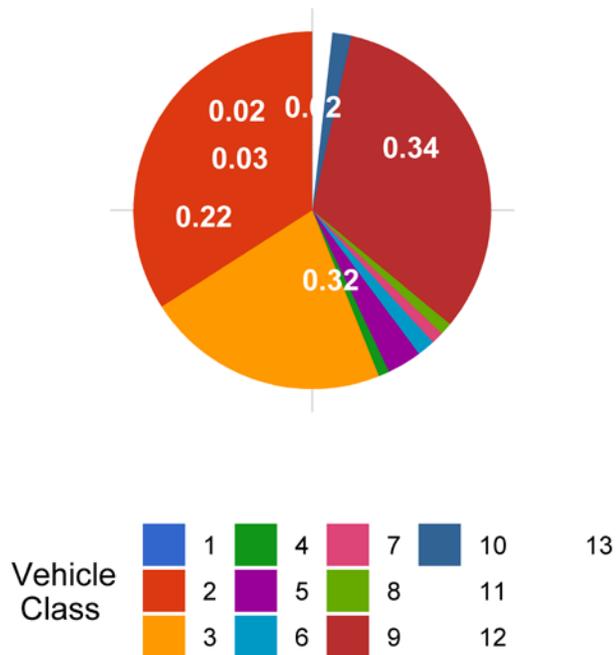


Figure 12 - Total ESALs by Class and Lane

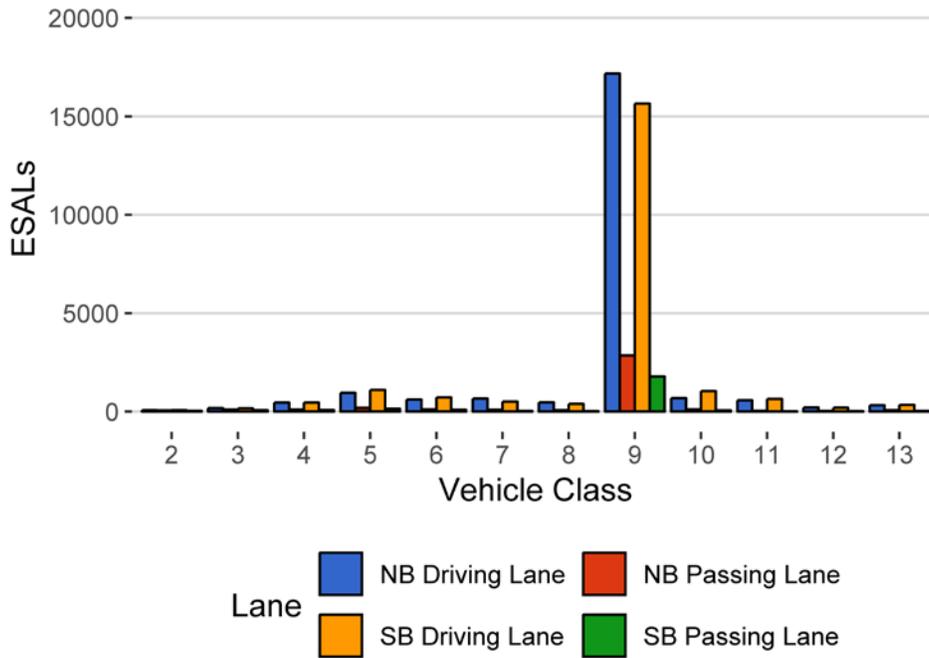


Figure 13 - ESALs by Class

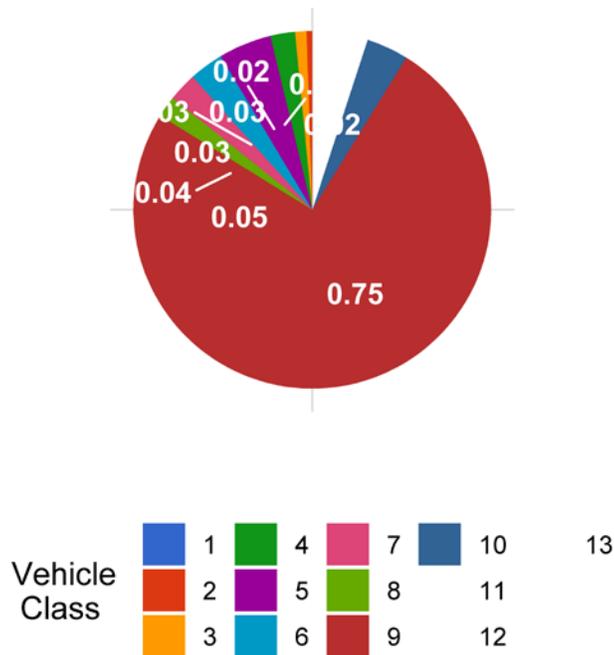


Table 1 Class 9 Front Axle Weight by Lane

<i>Month</i>	<i>Lane 1 (Kips)</i>	<i>Front Axle +/- 9%</i>	<i>Lane 2 (Kips)</i>	<i>Front Axle +/- 9%</i>	<i>Lane 3 (Kips)</i>	<i>Front Axle +/- 9%</i>	<i>Lane 4 (kips)</i>	<i>Front Axle +/- 9%</i>
June 2015	NA	NA	11.20	0.00	11.34	0.00	NA	NA
July 2015	NA	NA	11.23	0.30	11.35	0.02	NA	NA
October 2015	NA	NA	10.93	-2.33	10.87	-4.19	NA	NA
November 2015	NA	NA	10.94	-2.29	10.69	-5.77	NA	NA
January 2016	10.55	0.00	10.73	-4.17	10.10	-10.94	NA	NA
February 2016	10.50	-0.47	10.72	-4.22	10.29	-9.33	NA	NA
March 2016	10.53	-0.14	10.74	-4.11	10.68	-5.82	NA	NA
April 2016	10.62	0.67	10.89	-2.75	10.75	-5.26	NA	NA
May 2016	10.68	1.24	10.96	-2.10	10.97	-3.27	NA	NA
June 2016	10.74	1.86	11.16	-0.34	11.14	-1.78	NA	NA
July 2016	10.75	1.92	11.18	-0.10	11.16	-1.59	NA	NA
September 2016	10.57	0.21	11.03	-1.49	10.84	-4.47	NA	NA
October 2016	10.49	-0.52	10.86	-3.01	10.54	-7.07	NA	NA
November 2016	10.47	-0.71	10.80	-3.51	10.50	-7.44	NA	NA
January 2017	10.28	-2.51	10.59	-5.39	9.94	-12.34	NA	NA
February 2017	10.23	-2.99	10.69	-4.53	10.18	-10.26	NA	NA
March 2017	10.31	-2.25	10.72	-4.26	10.32	-9.07	NA	NA
April 2017	10.37	-1.68	10.76	-3.92	10.47	-7.71	NA	NA
May 2017	10.47	-0.72	10.95	-2.16	10.70	-5.67	NA	NA
June 2017	10.57	0.24	11.16	-0.34	10.86	-4.30	10.78	0.00
July 2017	10.62	0.68	11.22	0.24	10.89	-4.00	10.82	0.42
August 2017	10.51	-0.35	11.11	-0.73	10.71	-5.58	10.69	-0.78
September 2017	10.41	-1.25	11.06	-1.23	10.58	-6.78	10.60	-1.70
October 2017	10.31	-2.19	10.90	-2.63	10.27	-9.46	10.44	-3.15
November 2017	10.29	-2.46	10.89	-2.77	10.02	-11.64	10.41	-3.43
December 2017	9.91	-6.02	10.60	-5.33	9.62	-15.19	10.04	-6.89

January 2018	9.98	-5.37	10.56	-5.67	9.48	-16.42	9.93	-7.89
February 2018	9.91	-6.06	10.51	-6.11	9.49	-16.37	9.85	-8.63
March 2018	10.07	-4.48	10.73	-4.14	9.96	-12.23	10.05	-6.73
April 2018	10.17	-3.58	10.73	-4.13	10.11	-10.86	10.18	-5.59
May 2018	10.28	-2.51	10.83	-3.25	10.37	-8.56	10.39	-3.60
June 2018	10.36	-1.80	10.95	-2.19	10.46	-7.78	10.47	-2.88
July 2018	10.37	-1.65	11.01	-1.69	10.51	-7.36	10.53	-2.34

Table 2 Vehicle Classification Data

<i>Vehicle Class</i>	<i>Monthly Average Daily Volume</i>	<i>Monthly Total Volume</i>	<i>Monthly Total Volume Percentage</i>	<i>Monthly Total Overweight Vehicles</i>	<i>Monthly Total Overweight Percentage</i>
1	20	633	0.1	0	0
2	23615	732058	65.4	0	0
3	9737	301850	26.9	0	0
4	89	2756	0.2	39	1.4
5	573	17768	1.6	92	3.2
6	148	4598	0.4	110	3.9
7	49	1512	0.1	208	7.3
8	101	3121	0.3	49	1.7
9	1646	51031	4.6	1802	63.1
10	78	2426	0.2	286	10
11	39	1224	0.1	19	0.7
12	26	818	0.1	25	0.9
13	11	348	0	225	7.9
TOTAL	36134	1120144	100	2855	100

Table 3 Top 10 Gross Vehicle Weight, Class 9 and 10

<i>Date</i>	<i>Day of Week</i>	<i>Time</i>	<i>Vehicle Class</i>	<i>Direction</i>	<i>Lane</i>	<i>GVW (lbs)</i>
2018-07-20	Friday	04:34:27	9	NB	1	141.58
2018-07-10	Tuesday	04:24:39	9	NB	1	136.08
2018-07-13	Friday	03:57:27	9	NB	1	130.51
2018-07-27	Friday	04:43:14	9	NB	1	117.36
2018-07-08	Sunday	13:53:49	10	NB	1	106.08
2018-07-06	Friday	07:06:40	10	NB	1	106.03
2018-07-05	Thursday	15:54:38	10	NB	1	105.96
2018-07-19	Thursday	16:11:59	10	NB	1	105.84
2018-07-25	Wednesday	08:09:48	10	NB	1	105.33
2018-07-12	Thursday	07:09:11	10	NB	1	104.16

Table 4 Freight Summary

<i>Vehicle Class</i>	<i>Direction</i>	<i>Weight of Empty Vehicle (Kips)</i>	<i>Total Number of Vehicles</i>	<i>Number of Empty Vehicles</i>	<i>Percentage of Empty Vehicles</i>	<i>Total Weight of Vehicles with Freight (Kips)</i>	<i>Total Weight of Empty Vehicles (Kips)</i>	<i>Total Weight of Freight (Tons)</i>
4	NB	15	1206	139	11.5	33632	1765	8814
5	NB	8	8820	1258	14.3	112367	9078	25935
6	NB	19	2193	501	22.8	50606	8216	9229
7	NB	11.5	803	1	0.1	48167	9	19472
8	NB	31	1660	1124	67.7	21218	25554	2301
9	NB	33	25683	6680	26	1119299	185760	246100
10	NB	33.5	1216	543	44.7	45323	14842	11389
11	NB	36.5	604	79	13.1	29173	2360	5005
12	NB	36.5	416	54	13	20794	1807	3790
13	NB	31.5	168	2	1.2	15814	49	5292
TOTAL	****	****	42769	10381	****	1496393	****	337328
<i>Vehicle Class</i>	<i>Direction</i>	<i>Weight of Empty Vehicle (Kips)</i>	<i>Total Number of Vehicles</i>	<i>Number of Empty Vehicles</i>	<i>Percentage of Empty Vehicles</i>	<i>Total Weight of Vehicles with Freight (Kips)</i>	<i>Total Weight of Empty Vehicles (Kips)</i>	<i>Total Weight of Freight (Tons)</i>
4	SB	15	1509	213	14.1	38242	2671	9401
5	SB	8	8685	1476	17	111375	10529	26851
6	SB	19	2337	394	16.9	59574	6624	11328
7	SB	11.5	687	1	0.1	38557	9	15334
8	SB	31	1415	902	63.7	19551	20130	1824
9	SB	33	24593	6036	24.5	1052388	176709	220003
10	SB	33.5	1174	181	15.4	69986	4041	18360
11	SB	36.5	602	72	12	30305	2055	5480
12	SB	36.5	390	17	4.4	21279	571	3832
13	SB	31.5	175	2	1.1	16146	48	5348
TOTAL	****	****	41567	9294	****	1457402	****	317763
GRAND TOTAL	****	****	84336	19675	384	2953794	472827	655090

Table 5 Gross Vehicle Weight by Class and Lane

<i>Vehicle Class</i>	<i>NB Driving Lane</i>	<i>NB Passing Lane</i>	<i>SB Passing Lane</i>	<i>SB Driving Lane</i>	<i>Total</i>	<i>Percentage</i>
1	260	138	112	235	745	0
2	783555	567014	498384	808352	2657305	34.1
3	535155	334454	289177	559059	1717845	22
4	28955	6442	6000	34913	76310	1
5	97533	23911	18014	103890	243349	3.1
6	49888	8934	7717	58481	125020	1.6
7	43216	4961	2639	35926	86742	1.1
8	40406	6366	2957	36724	86453	1.1
9	1148064	156994	121040	1108057	2534155	32.5
10	53250	6916	4402	69625	134192	1.7
11	29649	1884	706	31654	63893	0.8
12	20119	2482	2056	19794	44451	0.6
13	13070	2793	1224	14970	32056	0.4
TOTAL	2843121	1123289	954428	2881679	7802518	100
GVW/LANE	36.44	14.4	12.23	36.93	100	0

Table 6 ESALs by Class and Lane and Flexible ESAL Factors

<i>Vehicle Class</i>	<i>NB Driving Lane</i>	<i>NB Passing Lane</i>	<i>SB Passing Lane</i>	<i>SB Driving Lane</i>	<i>Total</i>	<i>Percentage</i>	<i>Flexible ESAL Factor</i>
1	0	0	0	0	0	0	0.0016
2	77	62	46	74	258	0.52	7e-04
3	175	103	74	165	517	1.03	0.0035
4	457	101	82	465	1105	2.21	0.82
5	954	193	146	1102	2395	4.8	0.27
6	617	114	89	728	1548	3.1	0.68
7	661	95	35	507	1297	2.6	1.74
8	469	74	21	392	955	1.91	0.62
9	17174	2848	1780	15645	37447	75.01	1.49
10	686	107	59	1042	1895	3.8	1.58
11	576	47	14	645	1282	2.57	2.12
12	207	36	22	194	459	0.92	1.14
13	324	69	29	342	763	1.53	4.32
TOTAL	22376	3849	2396	21301	49922	100	15
ESALS/LANE	44.8	7.7	4.8	42.7	100	-	-

Table 7 Site Summary: Volume and Vehicle Class

<i>Month</i>	<i>Total Volume</i>	<i>Monthly ADT</i>	<i>Monthly HCAD T</i>	<i>Passenger Vehicles</i>	<i>Passenger Vehicles %</i>	<i>Heavy Commercial Vehicles</i>	<i>Heavy Commercial Vehicles %</i>	<i>Heavy Commercial Vehicles in Driving Lane %</i>	<i>Heavy Commercial Vehicles in Passing Lane %</i>
Aug 2017	1009074	32551	2616	927992	92	81081.8	8	88.3	11.7
Sep 2017	941075	31369	2573	863885	91.8	77190.3	8.2	89.1	10.9
Oct 2017	953108	30745	2606	872337	91.5	80770.9	8.5	89.1	10.9
Nov 2017	900902	30030	2391	829176	92	71725.8	8	89.1	10.9
Dec 2017	869439	28046	2065	805426	92.6	64013	7.4	88.2	11.8
Jan 2018	777133	25069	2126	711218	91.5	65915.4	8.5	87.3	12.7
Feb 2018	732422	26158	2134	672666	91.8	59756.2	8.2	89.1	10.9
Mar 2018	899645	29021	2200	831445	92.4	68199.7	7.6	90.2	9.8
Apr 2018	850664	28356	2215	784220	92.2	66444	7.8	89.5	10.5
May 2018	1039431	33530	2662	956910	92.1	82521.5	7.9	87.5	12.5
Jun 2018	1097500	36583	2770	1014403	92.4	83097.5	7.6	87.6	12.4
Jul 2018	1120144	36134	2761	1034542	92.4	85602.1	7.6	87.3	12.7
TOTAL	11190537	-	-	10304220	-	886318	-	-	-
AVERAGE	932545	30633	2427	858685	92	73860	8	89	11

ESALS

<i>Month</i>	<i>ESALS NB Passing Lane</i>	<i>ESALS NB Driving Lane</i>	<i>ESALS SB Driving Lane</i>	<i>ESALS SB Passing Lane</i>	<i>Total ESALS</i>	<i>Driving Lane ESALS %</i>	<i>Passing Lane ESALS %</i>	<i>Pavement Life Decrease Months</i>
Aug 2017	23865	3536	2284	20897	50582	88	12	1.2
Sep 2017	20809	3103	2028	20608	46548	89	11	0.9
Oct 2017	22079	3110	1788	19884	46861	90	10	1.6
Nov 2017	19599	2736	1498	16531	40364	90	10	1.1
Dec 2017	14090	2504	1185	12527	30306	88	12	0.7
Jan 2018	15526	2839	1441	13237	33043	87	13	1.2
Feb 2018	14312	2062	1192	12404	29970	89	11	0.5
Mar 2018	17718	2055	1307	14249	35330	90	10	1.1
Apr 2018	17911	2401	1428	13971	35711	89	11	1.5
May 2018	22396	3529	2349	18747	47020	88	12	2
Jun 2018	23012	3694	2374	19307	48387	87	13	2.4
Jul 2018	22415	3858	2407	21343	50024	87	13	1.7
TOTAL	233733	35427	21282	203704	494146	-	-	-
AVERAGE	19478	2952	1774	16975	41179	89	11	1

Gross Vehicle Weight

<i>Month</i>	<i>GVW NB Passing Lane</i>	<i>GVW NB Driving Lane</i>	<i>GVW SB Passing Lane</i>	<i>GVW SB Driving Lane</i>	<i>Total GVW Kips</i>
Aug 2017	2084390	711458	548906	2059562	5404317
Sep 2017	1947717	627968	484577	1890136	4950397
Oct 2017	2337771	771441	616757	2244953	5970921
Nov 2017	2259387	759393	600722	2164611	5784113
Dec 2017	2707830	1023785	857182	2663473	7252270
Jan 2018	2805374	1107547	932861	2734606	7580388
Feb 2018	2846033	1123846	955181	2884472	7809531
Mar 2018	2736287	998847	829406	2723748	7288288
Apr 2018	2534621	897107	740675	2614255	6786658
May 2018	2637284	907307	731619	2602728	6878938
Jun 2018	2414147	828796	668537	2357091	6268571
Jul 2018	2153551	784938	597727	2126715	5662931
TOTAL	29464391	10542434	8564149	29066350	77637324
AVERAGE	2455366	878536	713679	2422196	6469777

Overweight Vehicles

<i>Month</i>	<i>Total Number of Overweight Vehicles</i>	<i>Overweight / Total Volume</i>	<i>Overweight / Heavy Commercial Volume</i>	<i>Number Over 88,000 lbs</i>	<i>Number Over 98,000 lbs</i>
Aug 2017	3022	0.3	3.8	123	58
Sep 2017	2871	0.3	3.8	124	77
Oct 2017	2480	0.3	3.1	117	72
Nov 2017	1977	0.2	2.8	133	81
Dec 2017	868	0.1	1.4	61	38
Jan 2018	1147	0.1	1.8	65	41
Feb 2018	1037	0.1	1.7	50	26
Mar 2018	1066	0.1	1.6	70	34
Apr 2018	1338	0.2	2	93	63
May 2018	2314	0.2	2.8	232	122
Jun 2018	2666	0.2	3.2	261	186
Jul 2018	2866	0.3	3.4	226	152
TOTAL	23652	-	-	1555	950
AVERAGE	1971	0.2	2.6	129.6	79.2

Freight

<i>Month</i>	<i>NB Freight Tons</i>	<i>SB Freight Tons</i>	<i>Total Freight</i>	<i>NB Freight %</i>	<i>SB Freight %</i>
Aug 2017	340556	296904	637460	53.4	46.6
Sep 2017	301806	300251	602057	50.1	49.9
Oct 2017	327015	290927	617942	52.9	47.1
Nov 2017	288577	242461	531038	54.3	45.7
Dec 2017	226392	195594	421986	53.6	46.4
Jan 2018	243904	210402	454307	53.7	46.3
Feb 2018	217781	187177	404958	53.8	46.2
Mar 2018	259219	219426	478646	54.2	45.8
Apr 2018	262841	213385	476226	55.2	44.8
May 2018	329620	285332	614952	53.6	46.4
Jun 2018	339294	288144	627438	54.1	45.9
Jul 2018	337328	317763	655090	51.5	48.5
TOTAL	3474334	3047766	6522100	-	-
AVERAGE	289527.8	253980.5	543508.3	53.4	46.6