

OCTOBER 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 October 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 except lane 3. 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: 1005115 | Passenger Vehicles: 920135 | Heavy Commercial Vehicles: 84980

Monthly Average Daily Traffic (MADT): 32423 | Monthly Heavy Commercial Average Daily Traffic (MHCADT): 2741

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 Mondays. SB vehicles typically reached highest volume levels on Fridays, with lowest volumes reported on Tuesdays (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 07 AM 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 07 AM 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 84980 HCVs, 1560 of them were overweight³. These overweight HCVs contributed to 0.2% of total monthly volume, and 1.9% 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 Thursdays, with lowest volumes reported on Sundays. See Figure 3 . The top two overweight violators by class were the class 9 and class 7 vehicles . Overall, overweight vehicles tended to reach peak volume concentrations during typical business hours, with 69.9% 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 ,77 NB vehicles exceeded 88,000 pounds (54 vehicles were Class 13's; 16 vehicles were Class 10's). Of vehicles traveling SB,

65 NB vehicles exceeded 88,000 pounds (49 vehicles were Class 13's; 13 vehicles were Class 10's). Refer to Table 3 for the Top 10 highest recorded GVWs from Classes 9 and 10 from October 2018.

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

Freight Totals. A total of 602121 tons of freight was recorded to have crossed the WIM. More freight was shipped NB (53.4%) than SB (46.6%). 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 1005115 vehicles with a combined GVW of 6962873 kips (1 kip = 1,000 pounds = 0.5 tons) in October 2018. See Table 5 and Figures 12-13 for GVW information by vehicle class and lane.

Pavement Design. A total of 42930 equivalent single axle loads (ESALs) passed over the pavement at this site. Approximately 55.2% of all ESALs were recorded NB while 44.8% was observed SB. In particular, 73% of all ESALs were generated by the Class 9's (Class 9's were also responsible for generating 35% 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).

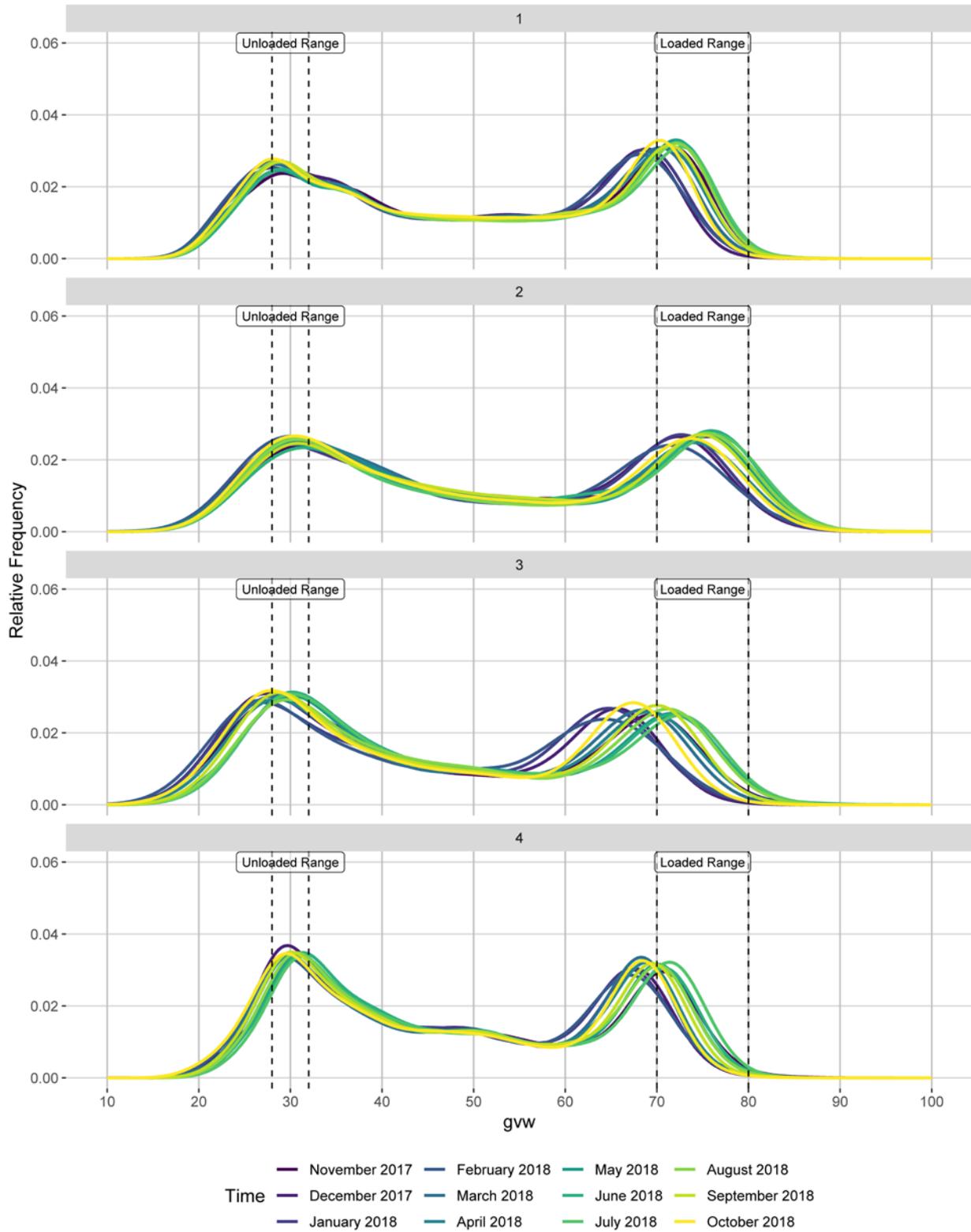
WIM monthly reports can be found at: <http://www.dot.state.mn.us/traffic/data/reports-monthly-wim.html>

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.

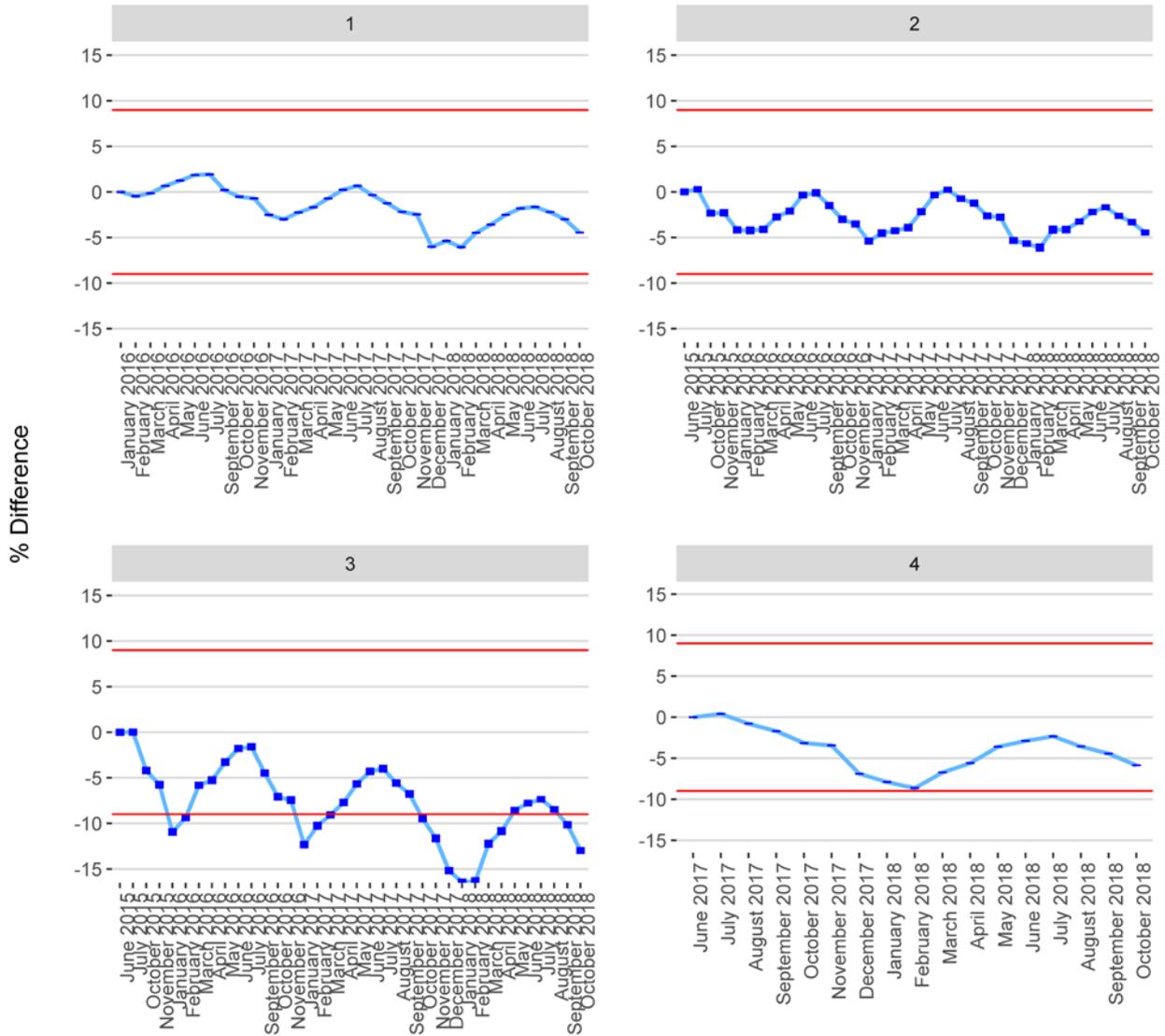
To request this document in an alternative format, please call 651-366-4718 or 1-800-657-3774, or email your request to ADArequest.dot@state.mn.us. Please request at least one week in advance.

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

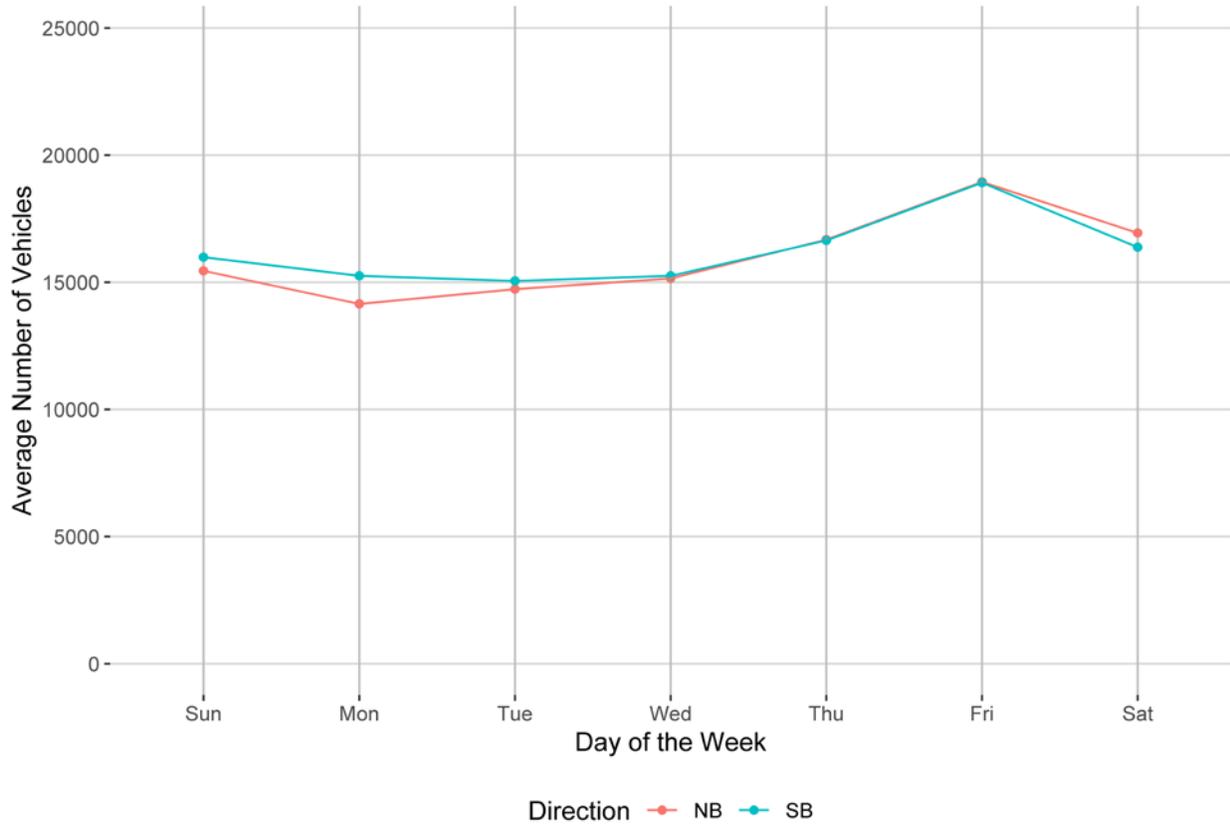


Figure 3 - Average Overweight Vehicle Volume vs. Day of the Week

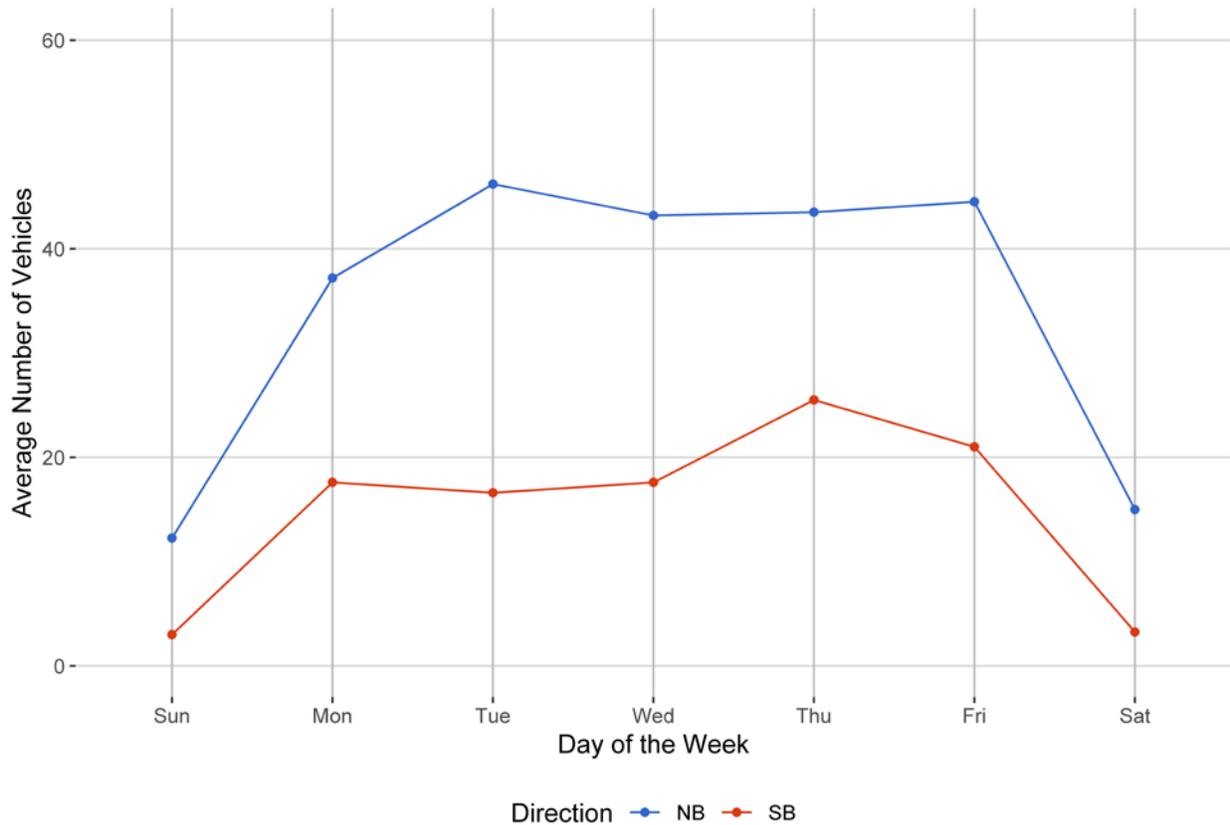


Figure 4 - Passenger Vehicles vs. Hour of the Day

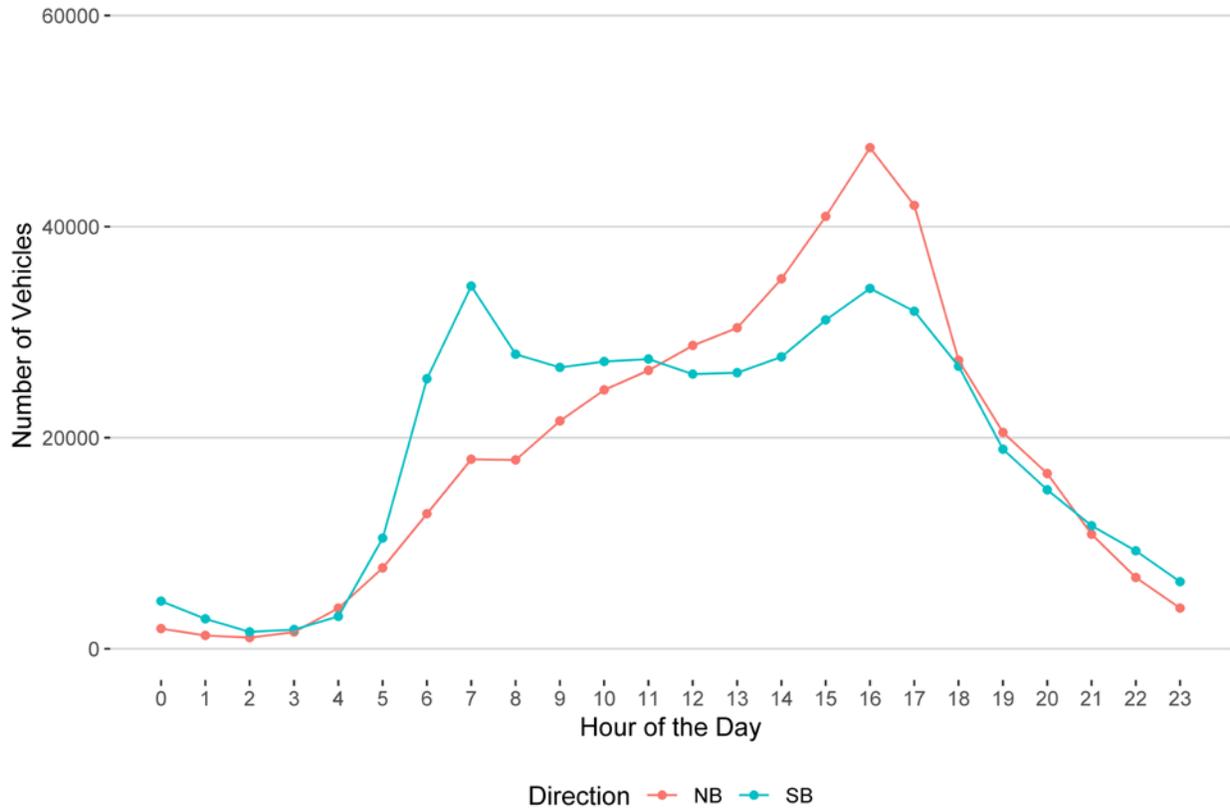


Figure 5 - Heavy Commercial Vehicles vs. Hour of the Day

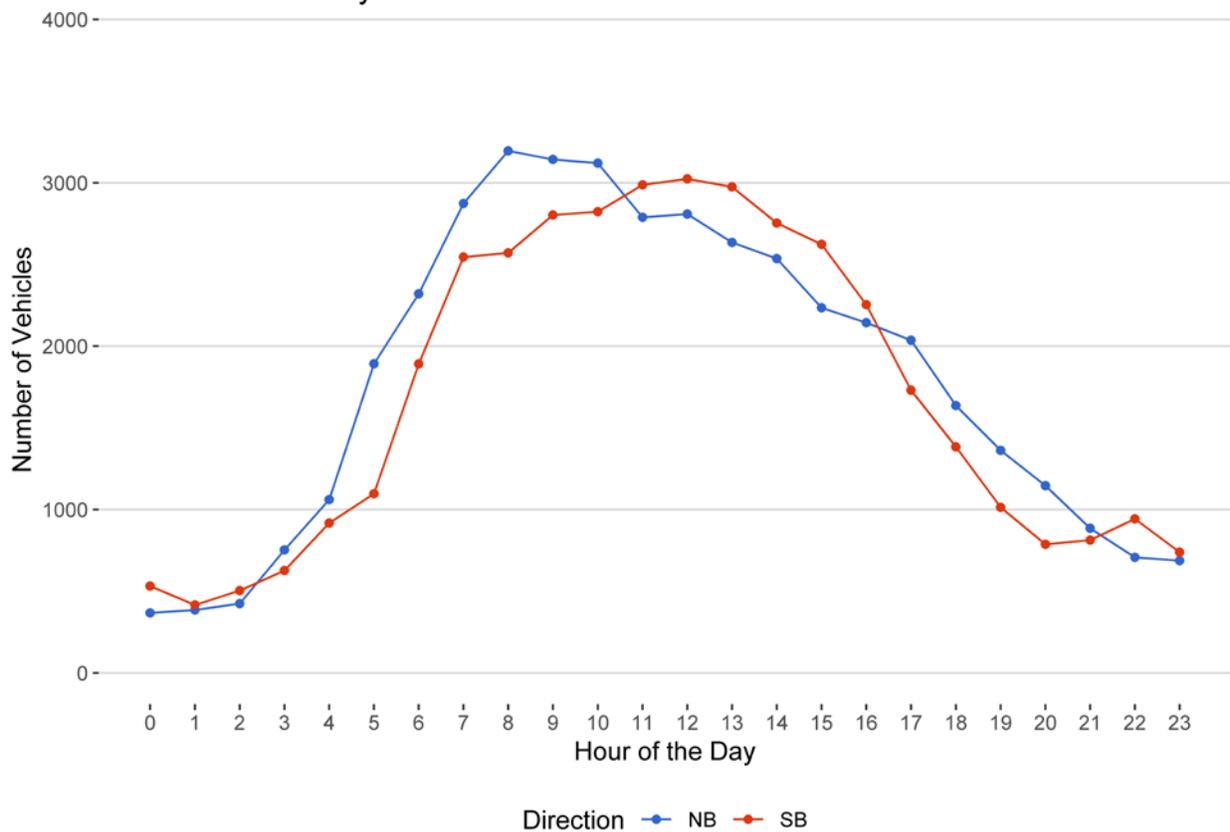


Figure 6 - Overweight Vehicles by Class vs. Hour of the Day

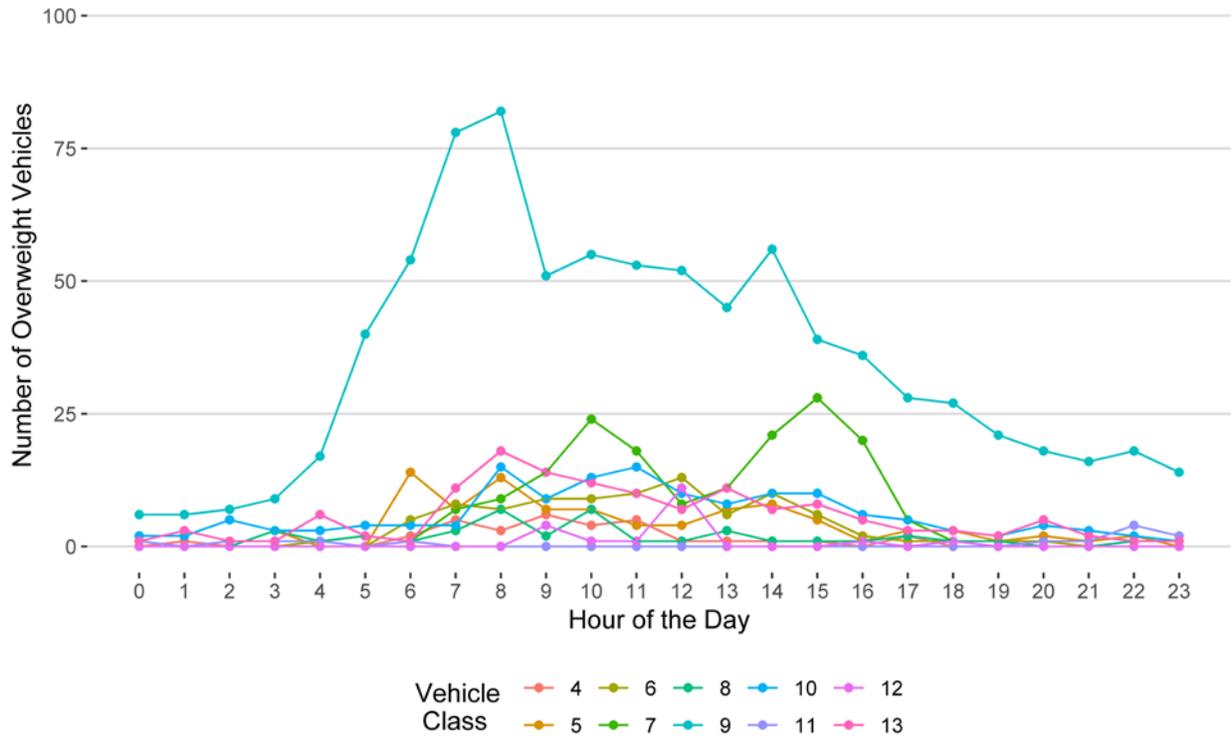


Figure 7 - Overweight Vehicles by Direction
Hour of the Day

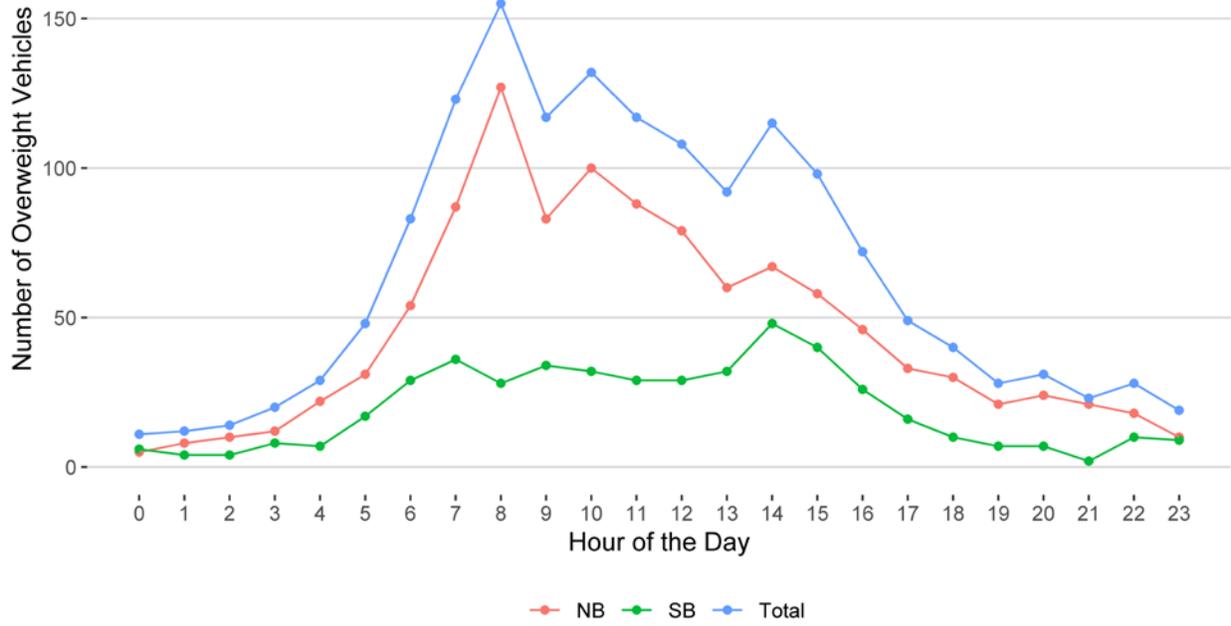
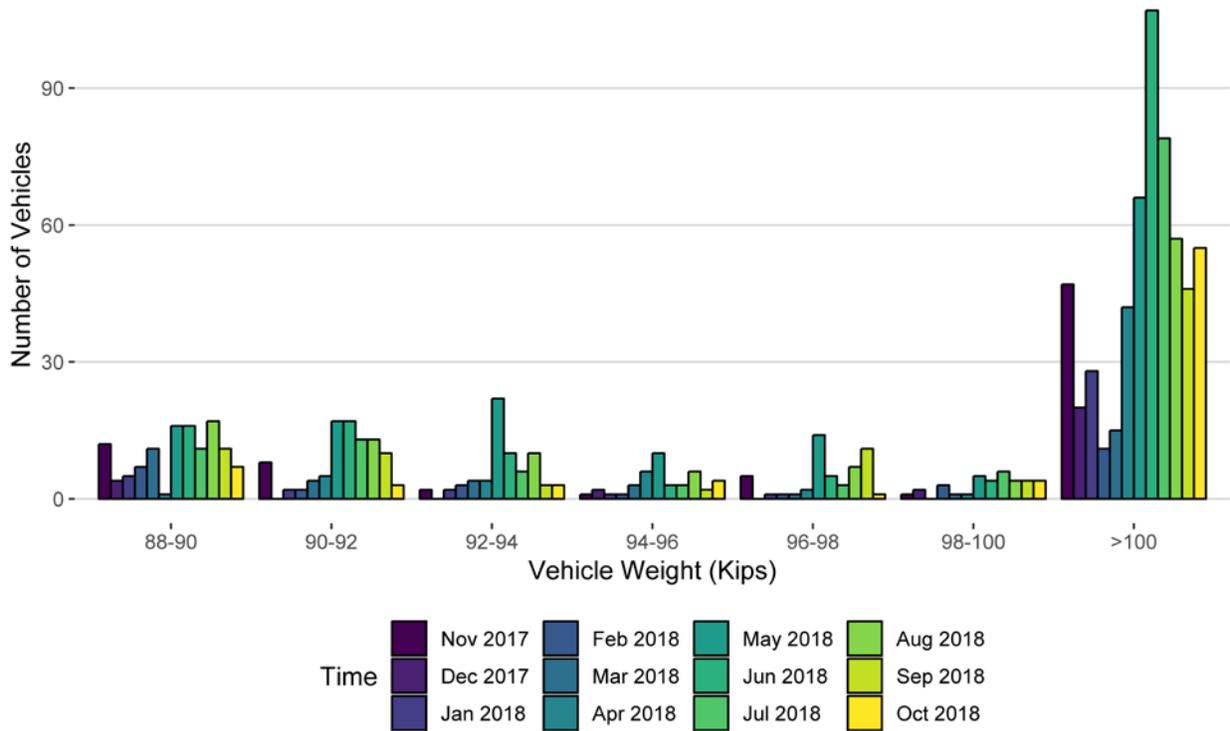
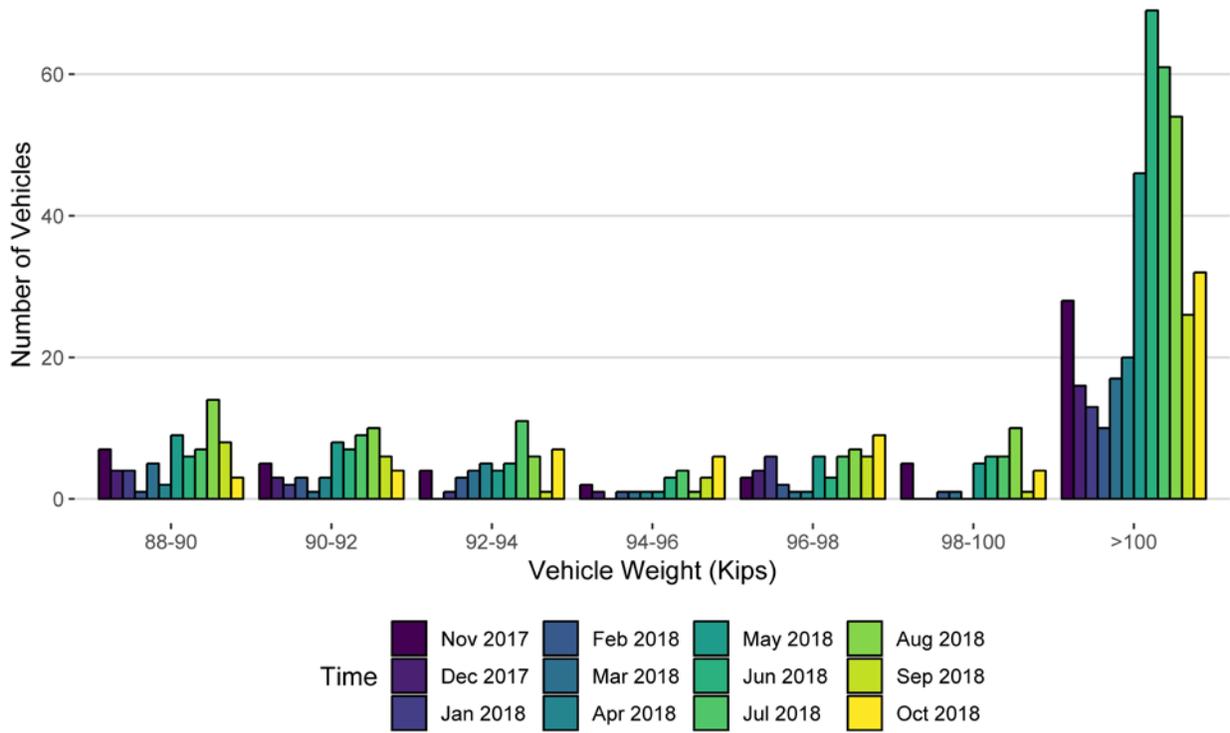


Figure 8 - Histogram of NB Vehicles Over 88,000 Pounds for Current Month



Vehicle Weights (Kips)	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
88-90	12	4	5	7	11	1	16	16	11	17	11	7
90-92	8	0	2	2	4	5	17	17	13	13	10	3
92-94	2	0	2	3	4	4	22	10	6	10	3	3
94-96	1	2	1	1	3	6	10	3	3	6	2	4
96-98	5	0	1	1	1	2	14	5	3	7	11	1
98-100	1	2	0	3	1	1	5	4	6	4	4	4
>100	47	20	28	11	15	42	66	107	79	57	46	55
Total	76	28	39	28	39	61	150	162	121	114	87	77

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



Vehicle Weights (Kips)	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018
88-90	7	4	4	1	5	2	9	6	7	14	8	3
90-92	5	3	2	3	1	3	8	7	9	10	6	4
92-94	4	0	1	3	4	5	4	5	11	6	1	7
94-96	2	1	0	1	1	1	1	3	4	1	3	6
96-98	3	4	6	2	1	1	6	3	6	7	6	9
98-100	5	0	0	1	1	0	5	6	6	10	1	4
>100	28	16	13	10	17	20	46	69	61	54	26	32
Total	54	28	26	21	30	32	79	99	104	102	51	65

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

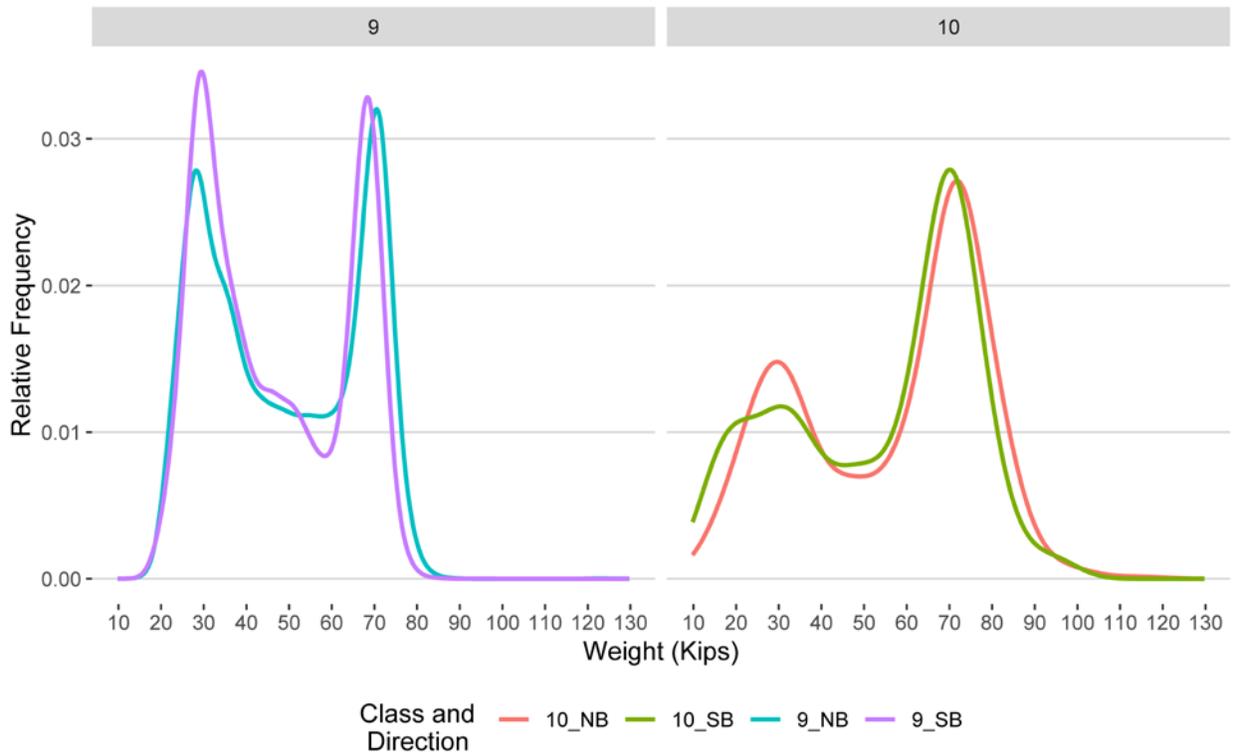


Figure 9 - Freight Percentage by Direction and Class

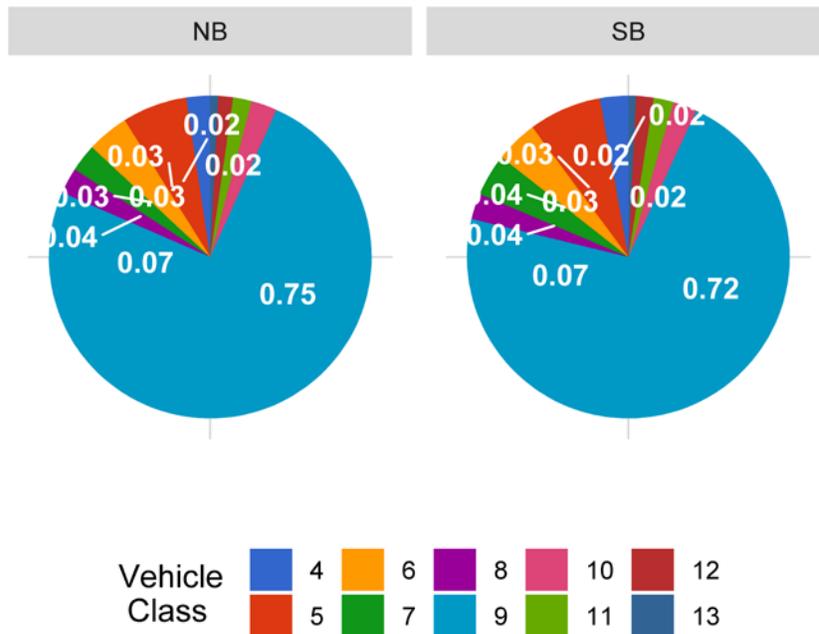


Figure 10 - Total Gross Vehicle Weight Percentage by Class and Lane

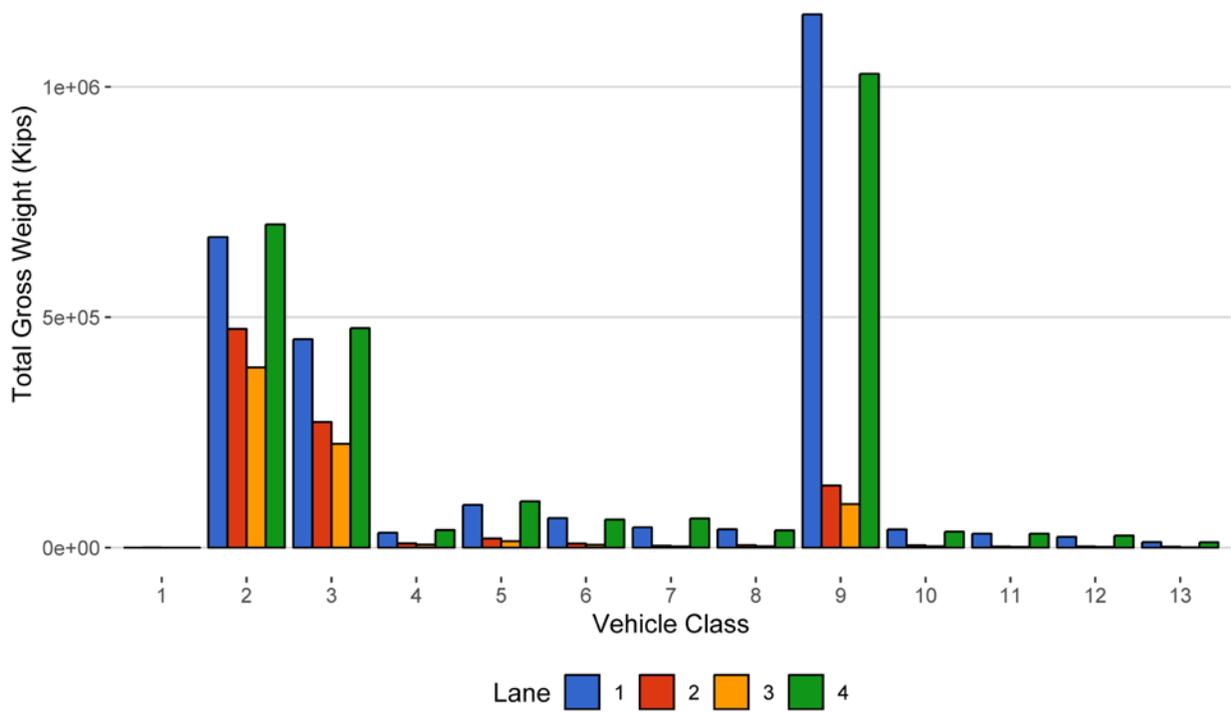


Figure 11 - Total Gross Vehicle Weight t

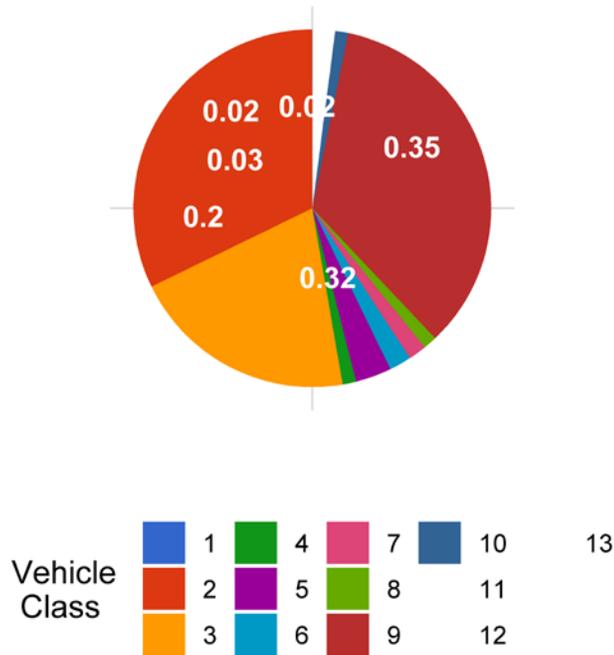


Figure 12 - Total ESALs by Class and Lane

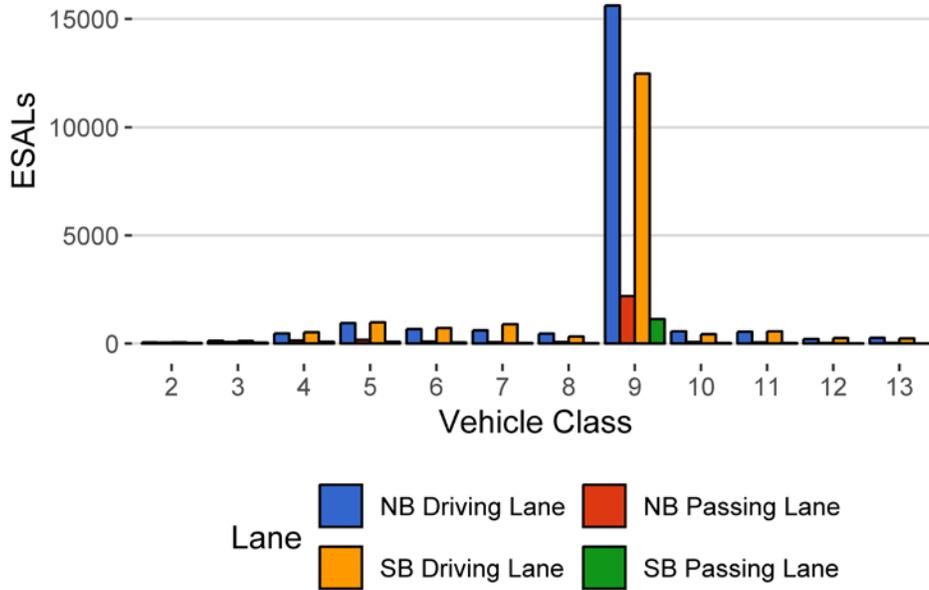


Figure 13 - ESALs by Class

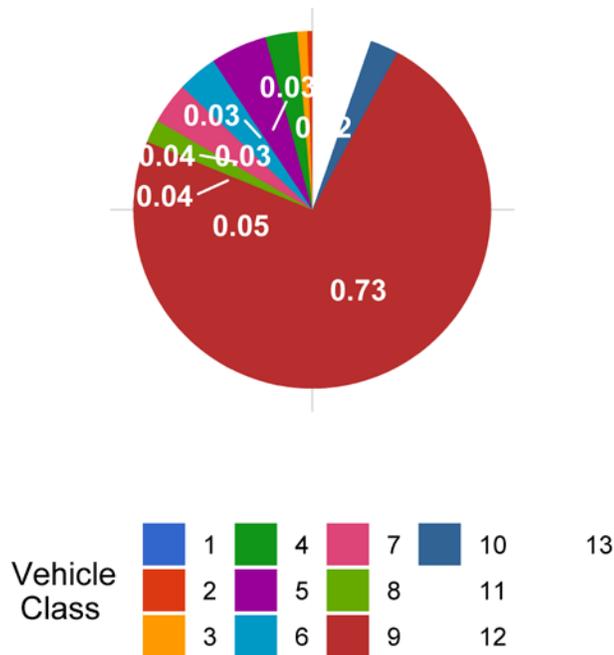


Table 1 Class 9 Front Axle Weight by Lane

<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
August 2018	10.31	-2.21	10.90	-2.63	10.38	-8.46	10.39	-3.56
September 2018	10.23	-3.00	10.82	-3.32	10.19	-10.15	10.30	-4.43
October 2018	10.08	-4.46	10.70	-4.45	9.87	-12.98	10.15	-5.86

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	3	79	0	0	0
2	21082	653544	65	0	0
3	8597	266512	26.5	0	0
4	94	2928	0.3	32	2.1
5	539	16720	1.7	92	5.9
6	173	5371	0.5	90	5.8
7	65	2027	0.2	167	10.7
8	99	3069	0.3	41	2.6
9	1640	50848	5.1	828	53.1
10	48	1503	0.1	143	9.2
11	40	1231	0.1	13	0.8
12	32	982	0.1	19	1.2
13	10	301	0	135	8.7
TOTAL	32423	1005115	100	1560	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>
2018-10-16	Tuesday	04:54:27	9	NB	1	129.78
2018-10-23	Tuesday	05:07:08	9	NB	1	122.96
2018-10-09	Tuesday	05:01:45	9	NB	1	122.67
2018-10-02	Tuesday	04:44:56	9	NB	1	122.61
2018-10-02	Tuesday	08:58:02	10	NB	1	117.03
2018-10-05	Friday	04:42:31	9	NB	1	115.54
2018-10-30	Tuesday	04:19:04	9	NB	1	111.86
2018-10-29	Monday	10:35:58	10	NB	1	109.57
2018-10-03	Wednesday	08:30:51	10	NB	1	101.24
2018-10-12	Friday	14:30:28	10	NB	1	100.85

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	1343	150	11.2	39258	1855	10681
5	NB	8	8222	1450	17.6	102083	10312	23954
6	NB	19	2837	508	17.9	64485	8155	10117
7	NB	11.5	810	0	0	47777	0	19231
8	NB	31	1571	1027	65.4	21108	23719	2122
9	NB	33	26308	7238	27.5	1093582	198480	232136
10	NB	33.5	790	189	23.9	39634	4855	9750
11	NB	36.5	622	46	7.4	31044	1520	5010
12	NB	36.5	479	74	15.4	23077	2464	4147
13	NB	31.5	158	0	0	13629	0	4326
TOTAL	****	****	43140	10682	****	1475677	****	321475
<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	1548	222	14.3	41537	2767	10824
5	SB	8	8284	1753	21.2	101731	12167	24742
6	SB	19	2465	440	17.8	59597	7099	10561
7	SB	11.5	1191	0	0	65829	0	26066
8	SB	31	1459	1041	71.4	15728	24702	1385
9	SB	33	23890	7341	30.7	917077	205756	185480
10	SB	33.5	694	179	25.8	33244	4171	7996
11	SB	36.5	593	49	8.3	30042	1537	5093
12	SB	36.5	490	25	5.1	26478	837	4753
13	SB	31.5	139	0	0	11873	0	3747
TOTAL	****	****	40753	11050	****	1303136	****	280646
GRAND TOTAL	****	****	83893	21732	381	2778813	510396	602121

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	11	36	16	27	91	0
2	674120	474464	391046	701388	2241017	32.2
3	452235	272475	224948	476119	1425777	20.5
4	32166	8946	6372	37932	85417	1.2
5	92695	19700	13722	100176	226293	3.3
6	64079	8560	5914	60782	139335	2
7	43955	3822	2574	63255	113606	1.6
8	39656	5171	3035	37395	85257	1.2
9	1157514	134549	94317	1028516	2414896	34.7
10	39458	5032	2846	34569	81904	1.2
11	30312	2252	1378	30201	64143	0.9
12	22969	2572	1435	25880	52856	0.8
13	11808	1820	624	11250	25502	0.4
TOTAL	2660978	939400	748226	2607490	6956094	100
GVW/LANE	38.25	13.5	10.76	37.48	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	0.0127
2	59	46	30	57	192	0.45	6e-04
3	138	76	47	127	388	0.9	0.003
4	471	150	86	525	1232	2.88	0.85
5	947	174	82	989	2191	5.11	0.27
6	680	94	57	717	1548	3.61	0.59
7	614	64	32	895	1606	3.75	1.6
8	467	71	18	334	891	2.08	0.59
9	15622	2193	1134	12475	31424	73.33	1.25
10	570	70	30	433	1103	2.57	1.49
11	550	57	26	572	1205	2.81	1.98
12	213	33	15	256	517	1.21	1.07
13	267	42	7	242	558	1.3	3.64
TOTAL	20596	3070	1565	17624	42855	100	13
ESALS/LANE	48.1	7.2	3.7	41.1	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>
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
Aug 2018	1096236	35362	2766	1010488	92.2	85748.4	7.8	87.8	12.2
Sep 2018	975288	32510	2516	899811	92.3	75477.3	7.7	88.6	11.4
Oct 2018	1005115	32423	2741	920135	91.5	84980	8.5	89	11
TOTAL	11363919	-	-	10470440	-	893481	-	-	-
AVERA GE	946993	3110 2	2446	872537	92	74457	8	88	12

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>
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
Aug 2018	22748	3715	2300	19232	47995	87	13	1.7
Sep 2018	19416	3002	1725	16380	40523	88	12	1.2
Oct 2018	20621	3073	1569	17666	42930	89	11	1.1
TOTAL	229765	35468	20776	195594	481602	-	-	-
AVERAGE	19147	2956	1731	16300	40134	88	12	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>
Nov 2017	2084390	711458	548906	2059562	5404317
Dec 2017	1947717	627968	484577	1890136	4950397
Jan 2018	2337771	771441	616757	2244953	5970921
Feb 2018	2259387	759393	600722	2164611	5784113
Mar 2018	2707830	1023785	857182	2663473	7252270
Apr 2018	2805374	1107547	932861	2734606	7580388
May 2018	2846033	1123846	955181	2884472	7809531
Jun 2018	2838230	1095512	906826	2780943	7621510
Jul 2018	2508245	912624	761584	2459287	6641740
Aug 2018	2663414	939774	748845	2610840	6962873
Sep 2018	2414147	828796	668537	2357091	6268571
Oct 2018	2153551	784938	597727	2126715	5662931
TOTAL	29566088	10687083	8679704	28976688	77909563
AVERAGE	2463841	890590	723309	2414724	6492464

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>
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
Aug 2018	2383	0.2	2.8	216	125
Sep 2018	1785	0.2	2.4	138	77
Oct 2018	1564	0.2	1.9	142	95
TOTAL	21011	-	-	1687	1040
AVERAGE	1750.9	0.2	2.3	140.6	86.7

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>
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
Aug 2018	338350	290850	629200	53.8	46.2
Sep 2018	289856	250391	540246	53.7	46.3
Oct 2018	321475	280646	602121	53.4	46.6
TOTAL	3454637	2981571	6436207	-	-
AVERAGE	287886.4	248464.2	536350.6	53.7	46.3