

NOVEMBER 2018



**WIM #38
I-535, MP 1.1
DULUTH, MN**

**MONTHLY
REPORT**



Your Destination... Our Priority



WIM Site Location

WIM #38 is located on I-535 near Duluth in St Louis county.

System Operation

WIM #38 was operational for the entire month of November 2018. Volume was computed using all monthly data.

System Calibration

WIM #38 was most recently calibrated on 2017-01-23. 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: 937276 | Passenger Vehicles: 884121 | Heavy Commercial Vehicles: 53155

Monthly Average Daily Traffic (MADT): 31243 | Monthly Heavy Commercial Average Daily Traffic (MHCADT): 1772

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 Sundays. SB vehicles typically reached highest volume levels on Fridays, with lowest volumes reported on Sundays (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 07 AM and 04 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 07 AM and 04 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 53155 HCVs, 3283 of them were overweight³. These overweight HCVs contributed to 0.4% of total monthly volume, and 6.3% of total monthly HCV volume. NB overweight vehicles typically reached highest numbers on Thursdays, 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 6 vehicles . Overall, overweight vehicles tended to reach peak volume concentrations during typical business hours, with 53.7% 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 December.

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 ,64 NB vehicles exceeded 88,000 pounds (31 vehicles were Class 13's; 27 vehicles were Class 10's). Of vehicles traveling SB,

145 NB vehicles exceeded 88,000 pounds (99 vehicles were Class 10's; 33 vehicles were Class 13's). Refer to Table 3 for the Top 10 highest recorded GVWs from Classes 9 and 10 from November 2018.

Loaded vs. Unloaded HCVs. Figure 10 shows the GVW distributions of Class 9s and 10s in November 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 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 384879 tons of freight was recorded to have crossed the WIM. More freight was shipped NB (50%) than SB (50%). See Table 4 and Figure 11 for more freight information.

Infrastructure Considerations

Bridge. Bridge No. 9030 (Blatnik Bridge) is approximately 1.1 miles south of WIM #38, and Bridge No. 69808 is 0.45 miles south of WIM #38. A pair of bridges also exists 0.4 miles north of WIM #38 (Bridge No. 69801C on the NB side and Bridge No. 69801N on the SB side). WIM #38 recorded a total of 937276 vehicles with a combined GVW of 5810257 kips (1 kip = 1,000 pounds = 0.5 tons) in November 2018. See Table 5 and Figures 12-13 for GVW information by vehicle class and lane.

Pavement Design. A total of 34082 equivalent single axle loads (ESALs) passed over the pavement at this site. Approximately 50.1% of all ESALs were recorded SB while 49.9% was observed NB. In particular, 64% of all ESALs were generated by the Class 9's (Class 9's

were also responsible for generating 21% 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).

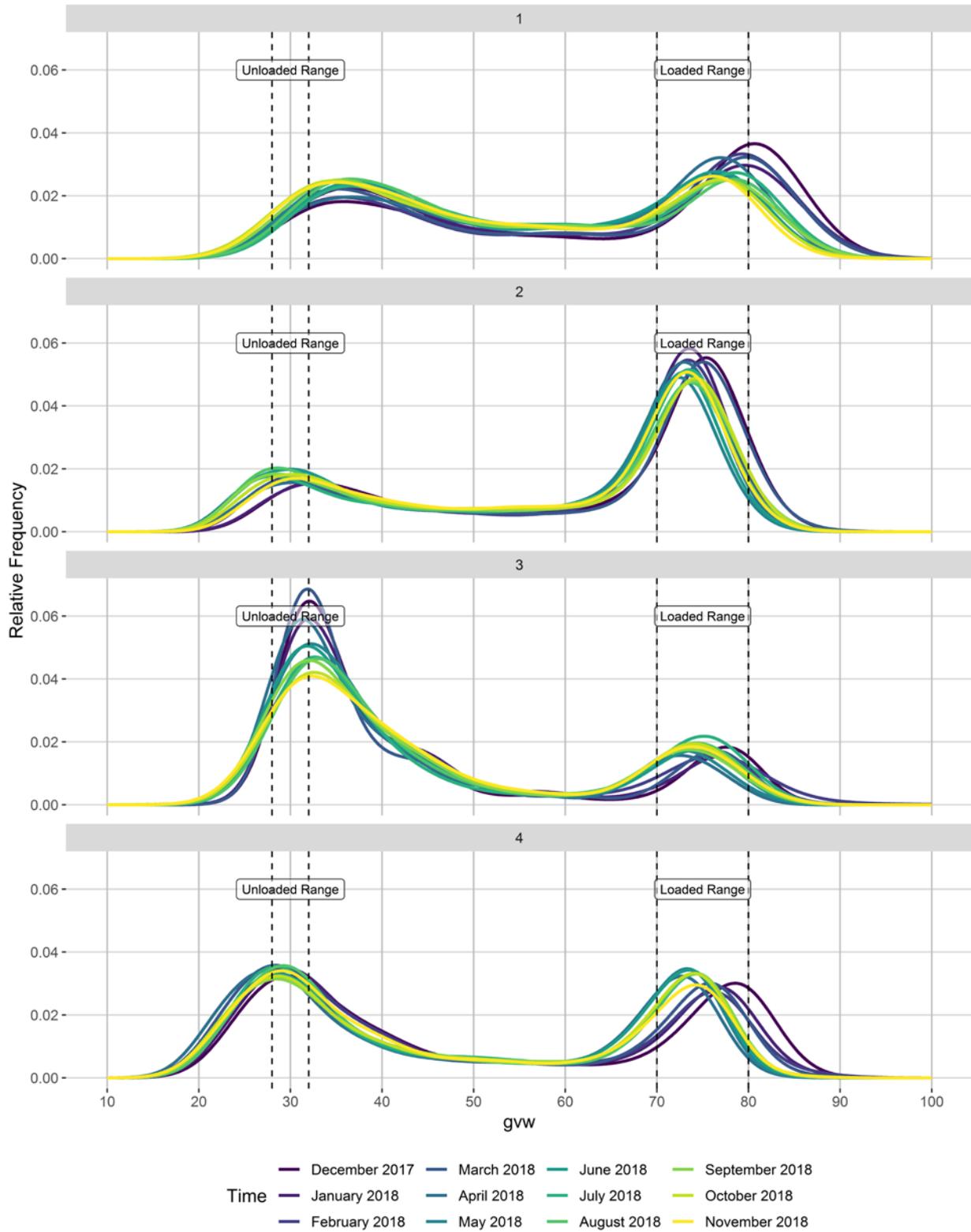
WIM monthly reports can be found at: <http://www.dot.state.mn.us/traffic/data/reports-monthly-wim.html>

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.

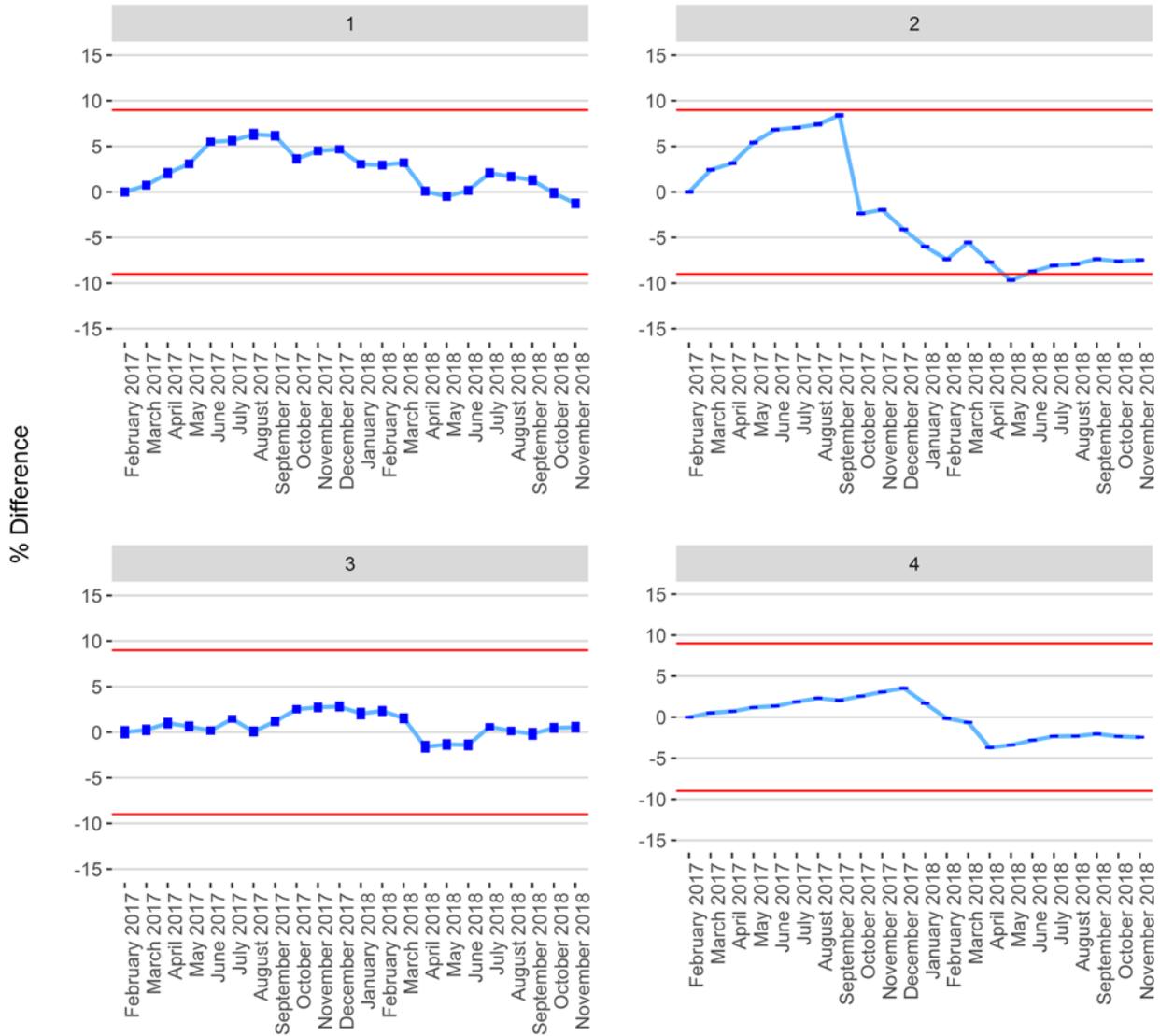
To request this document in an alternative format, please call 651-366-4718 or 1-800-657-3774, or email your request to ADArequest.dot@state.mn.us. Please request at least one week in advance.

Figure 1 - Monthly Class 9 GVW 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

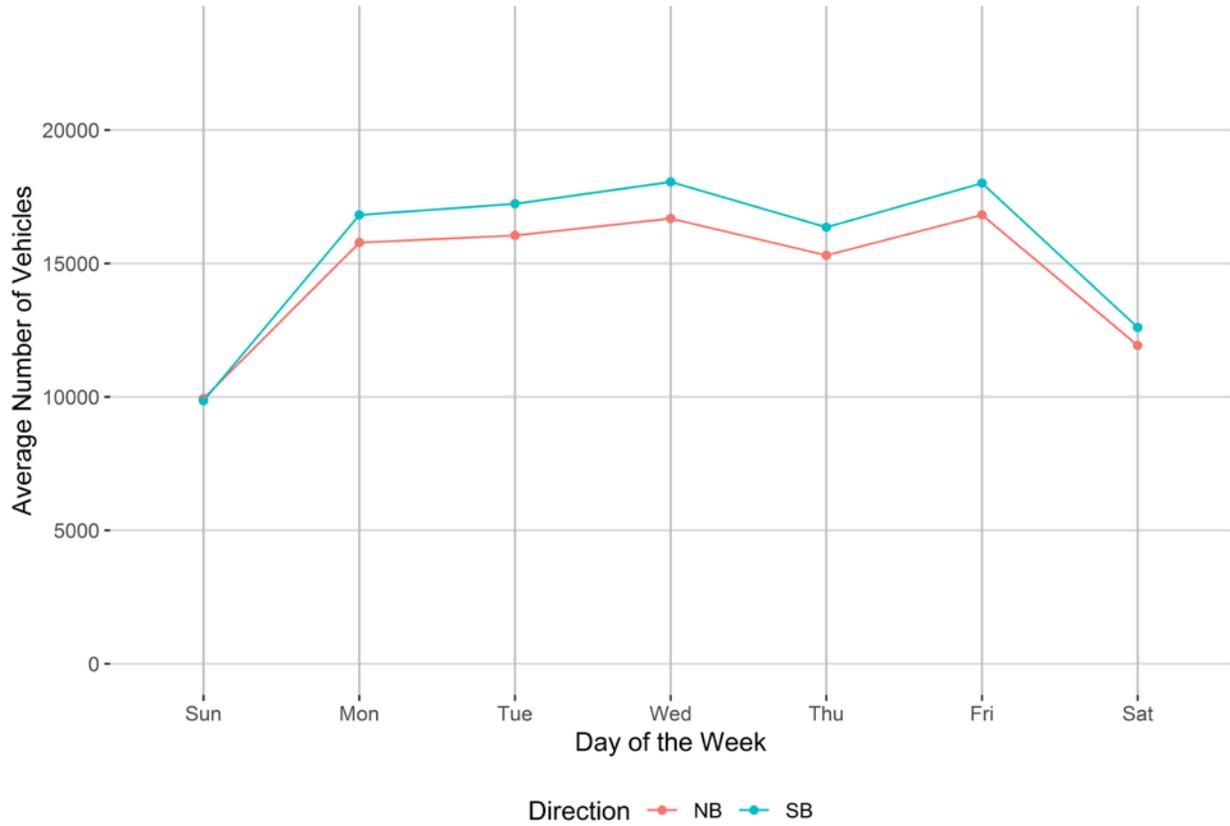


Figure 3 - Average Overweight Vehicle Volume vs. Day of the Week

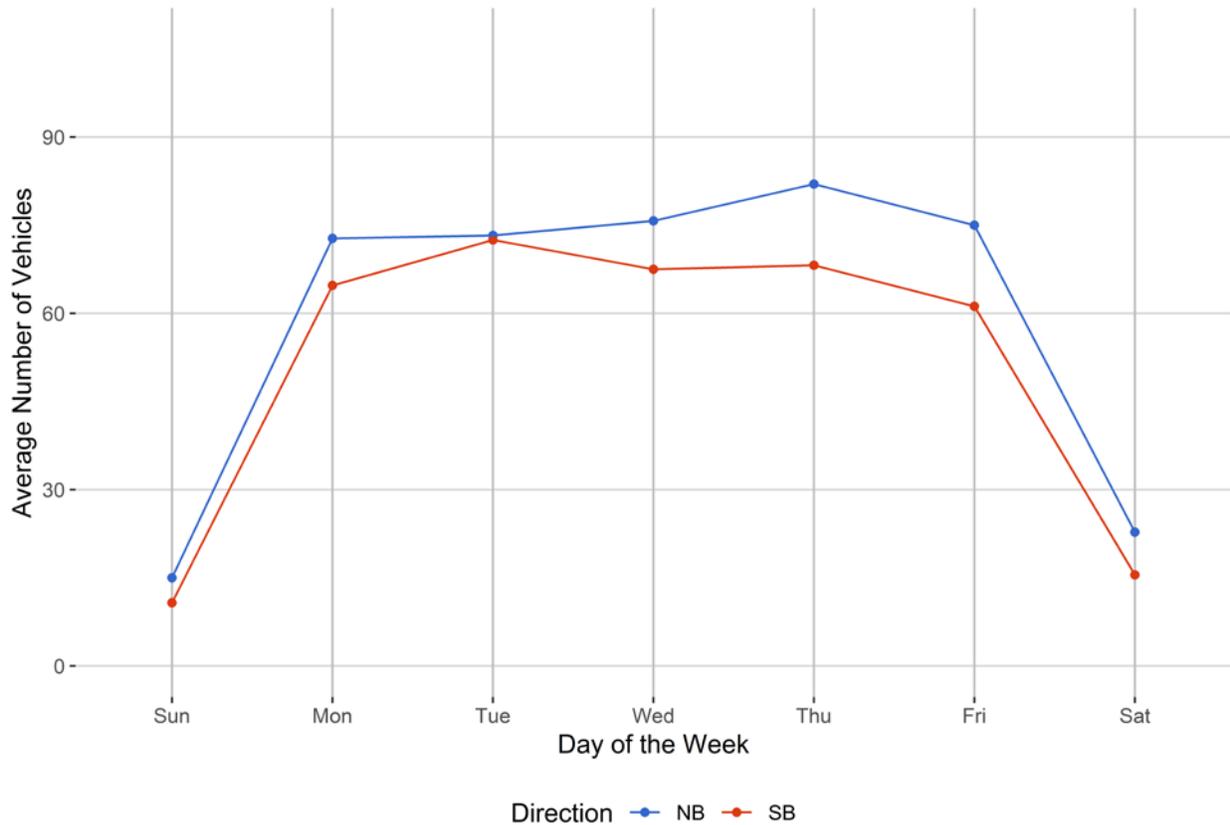


Figure 4 - Passenger Vehicles vs. Hour of the Day

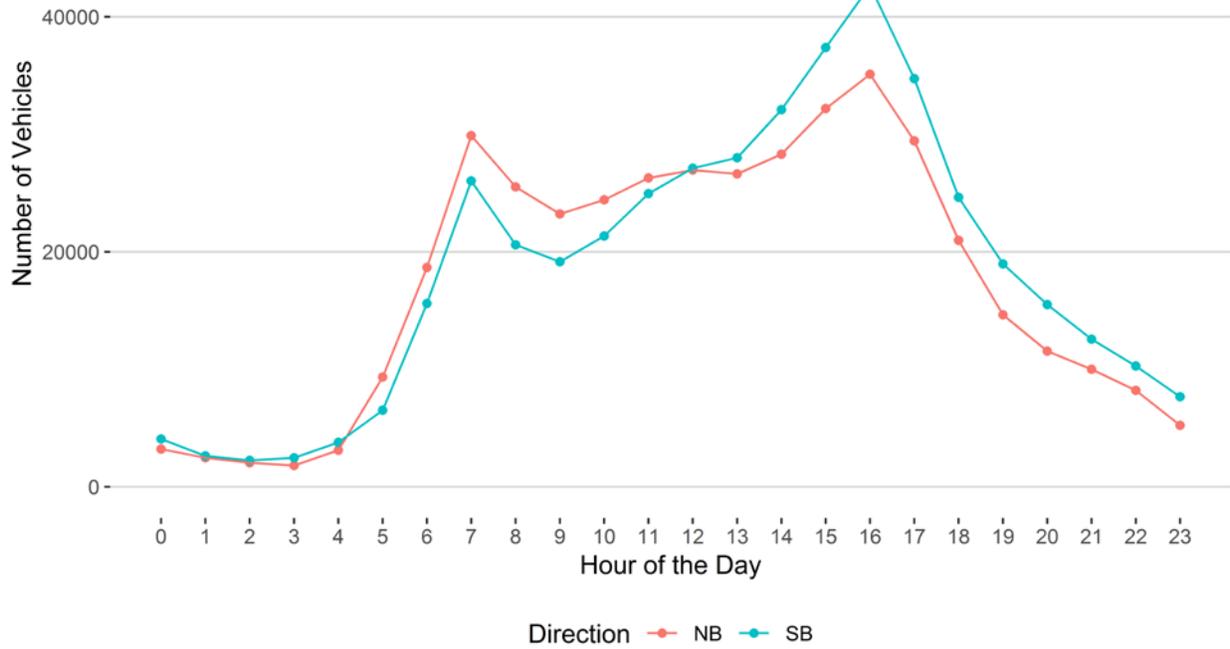


Figure 5 - Heavy Commercial Vehicles vs. Hour of the Day

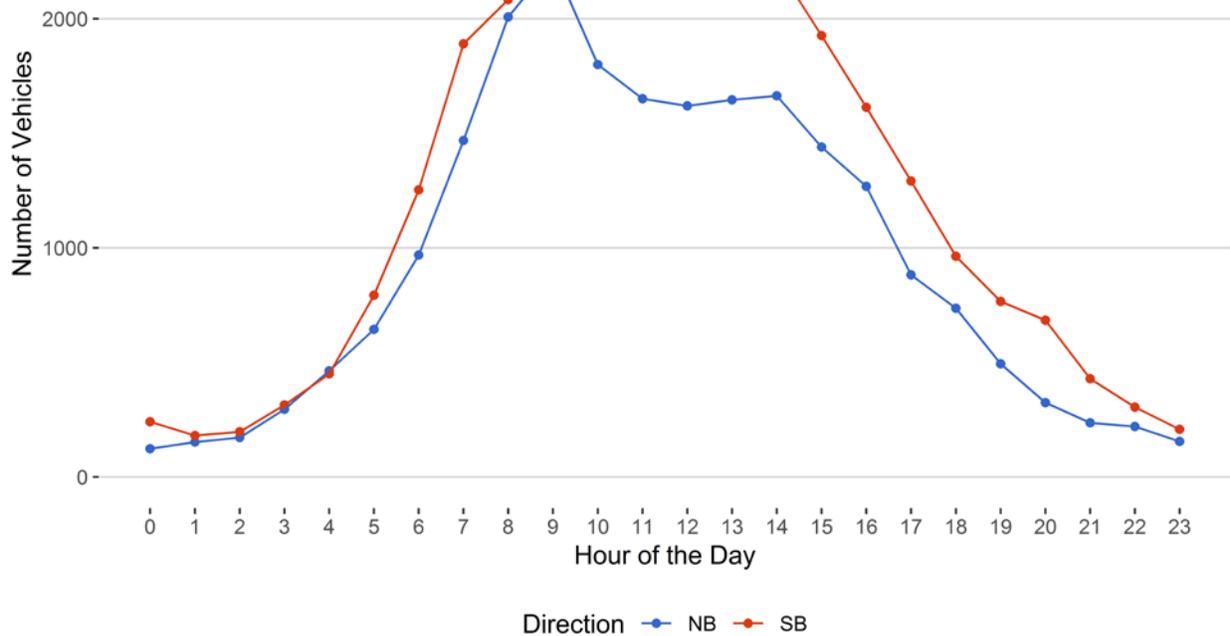


Figure 6 - Overweight Vehicles by Class vs. Hour of the Day

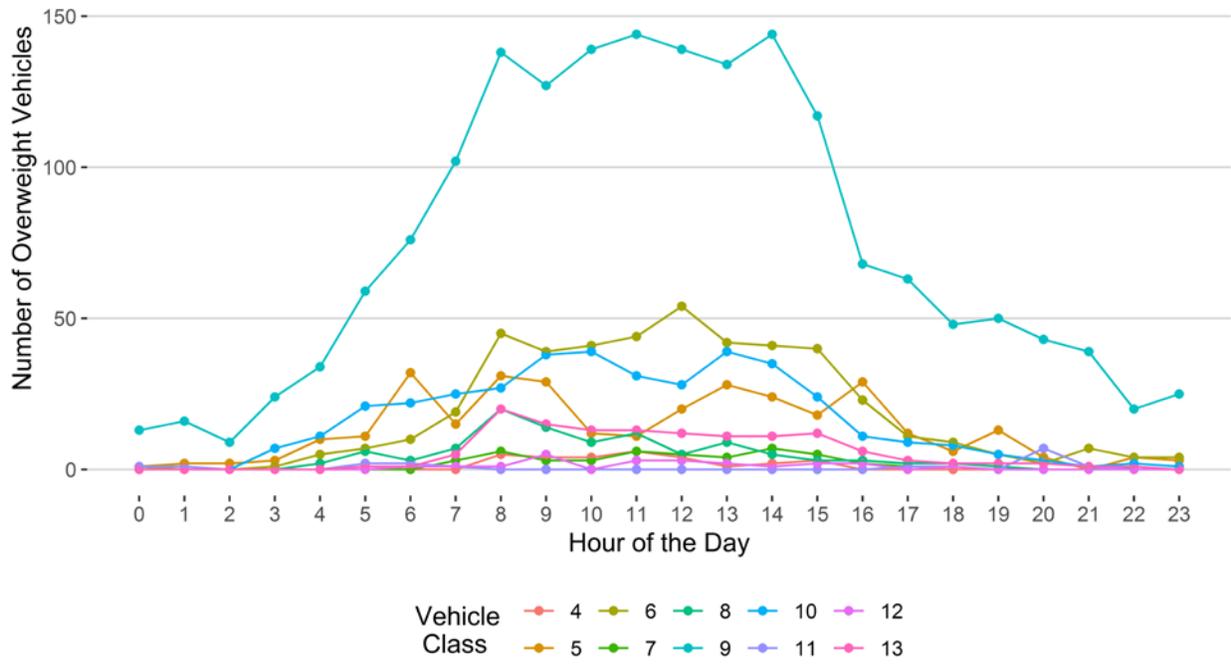


Figure 7 - Overweight Vehicles by Direction
Hour of the Day

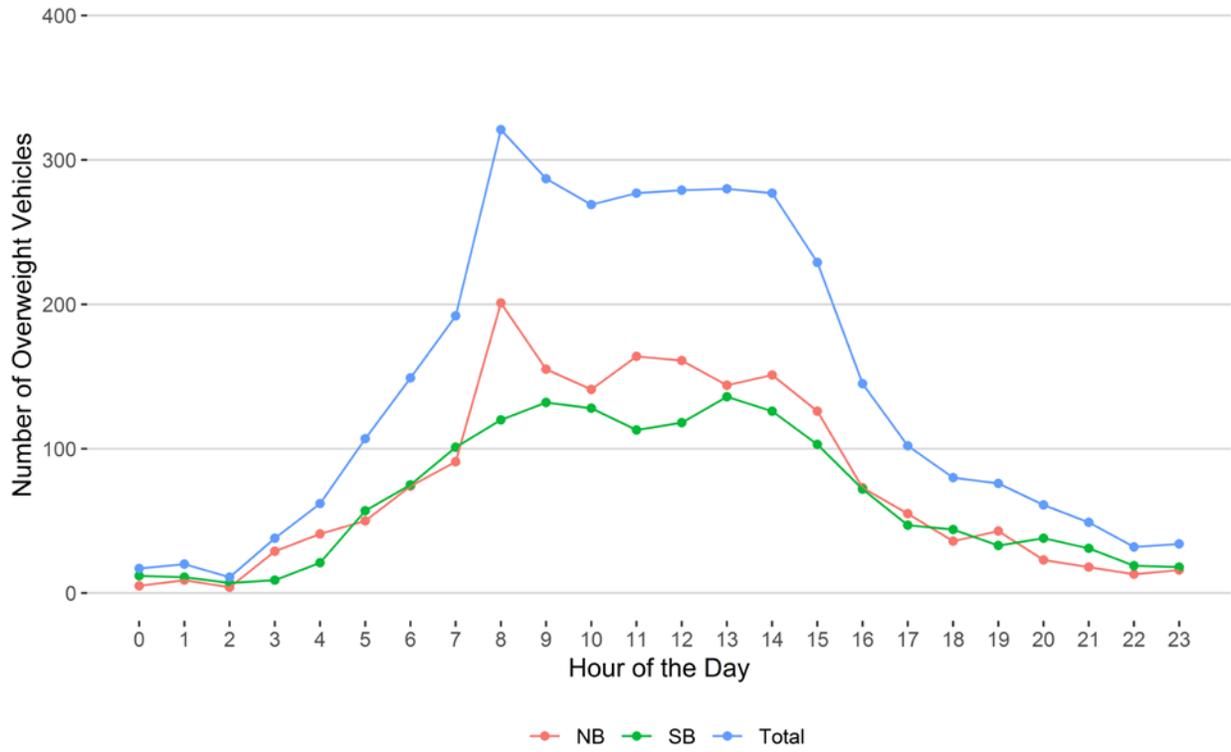
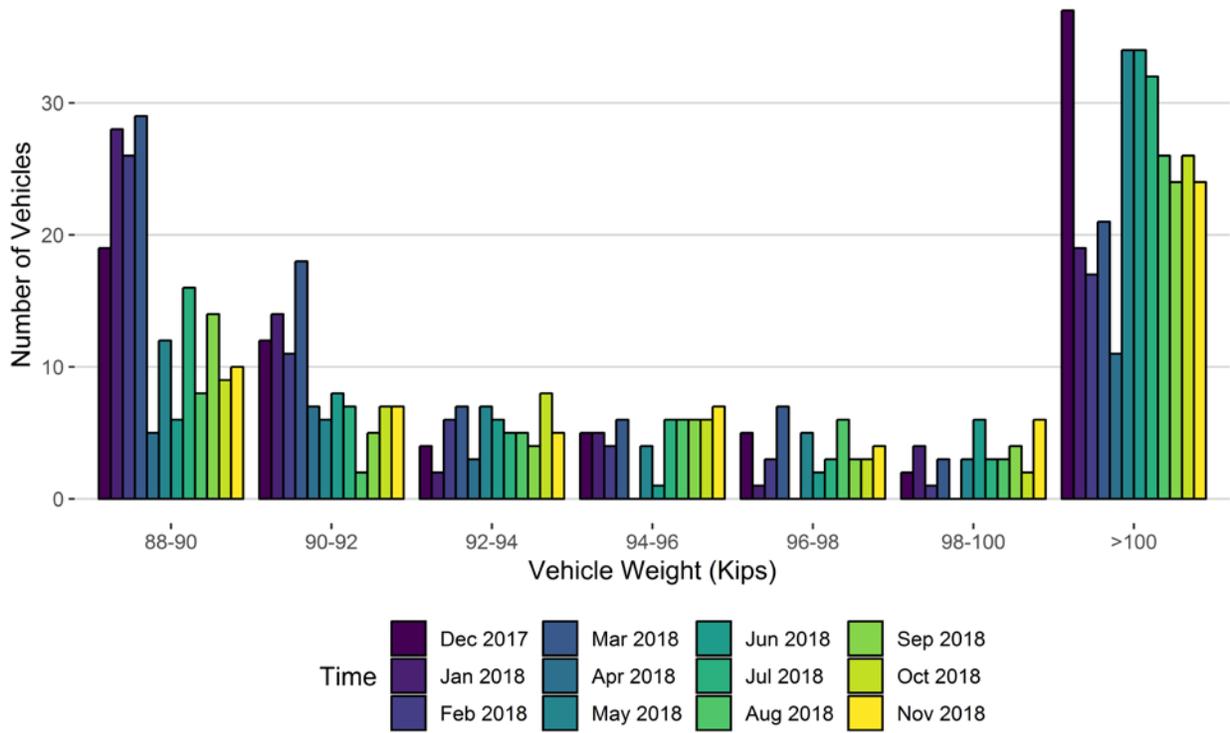
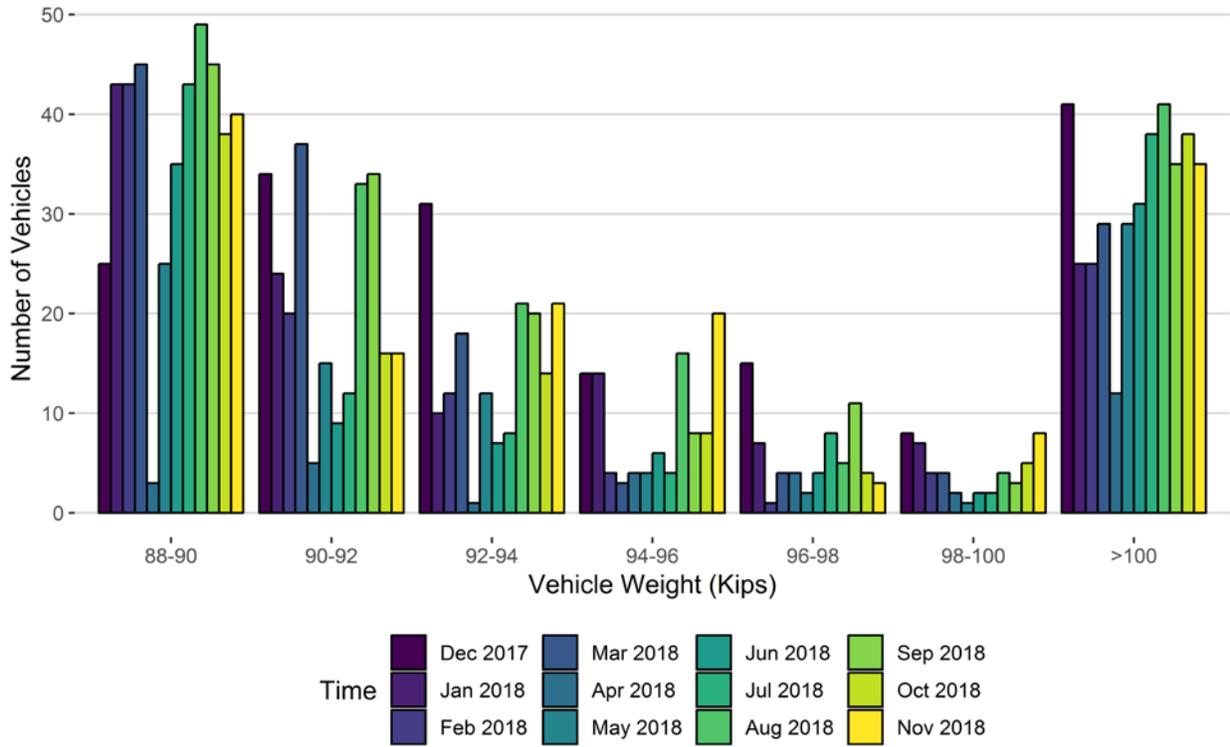


Figure 8 - Histogram of NB Vehicles Over 88,000 Pounds for Current Month



Vehicle Weights (Kips)	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018	Nov 2018
88-90	19	28	26	29	5	12	6	16	8	14	9	10
90-92	12	14	11	18	7	6	8	7	2	5	7	7
92-94	4	2	6	7	3	7	6	5	5	4	8	5
94-96	5	5	4	6	0	4	1	6	6	6	6	7
96-98	5	1	3	7	0	5	2	3	6	3	3	4
98-100	2	4	1	3	0	3	6	3	3	4	2	6
>100	37	19	17	21	11	34	34	32	26	24	26	24
Total	84	73	68	91	26	71	63	72	56	60	61	63

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



Vehicle Weights (Kips)	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018	Nov 2018
88-90	25	43	43	45	3	25	35	43	49	45	38	40
90-92	34	24	20	37	5	15	9	12	33	34	16	16
92-94	31	10	12	18	1	12	7	8	21	20	14	21
94-96	14	14	4	3	4	4	6	4	16	8	8	20
96-98	15	7	1	4	4	2	4	8	5	11	4	3
98-100	8	7	4	4	2	1	2	2	4	3	5	8
>100	41	25	25	29	12	29	31	38	41	35	38	35
Total	168	130	109	140	31	88	94	115	169	156	123	143

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

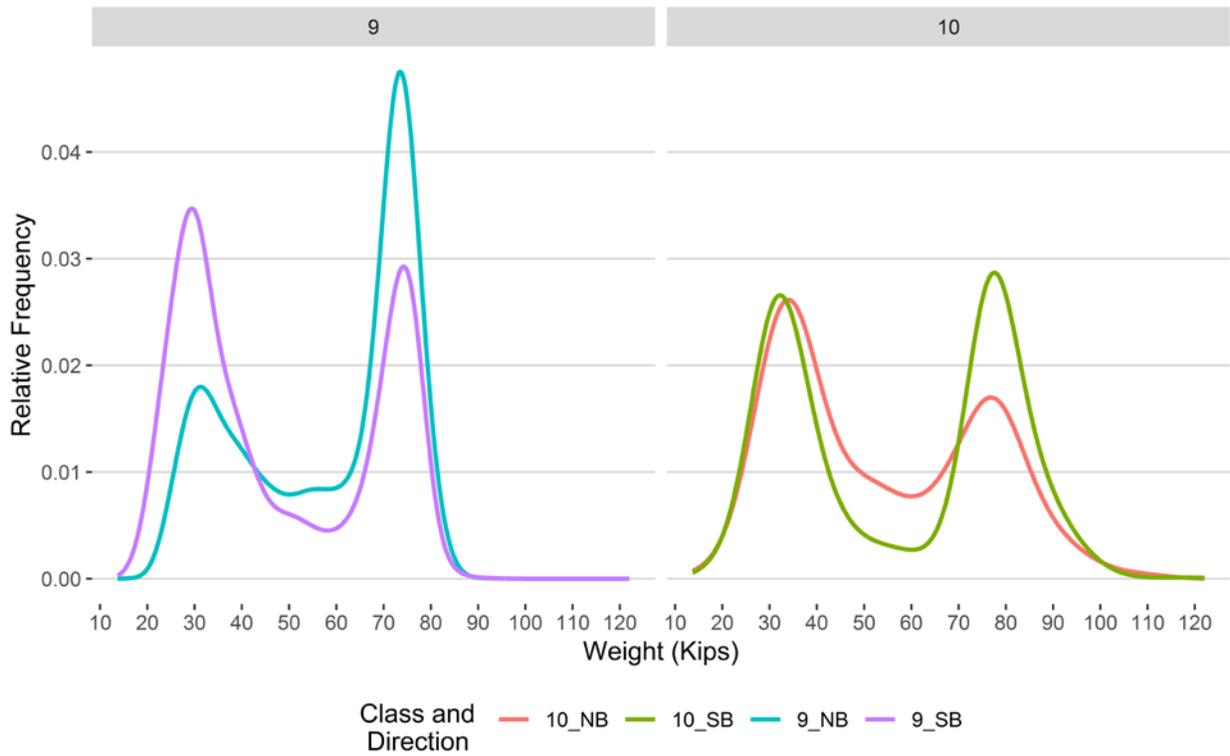


Figure 9 - Freight Percentage by Direction and Class

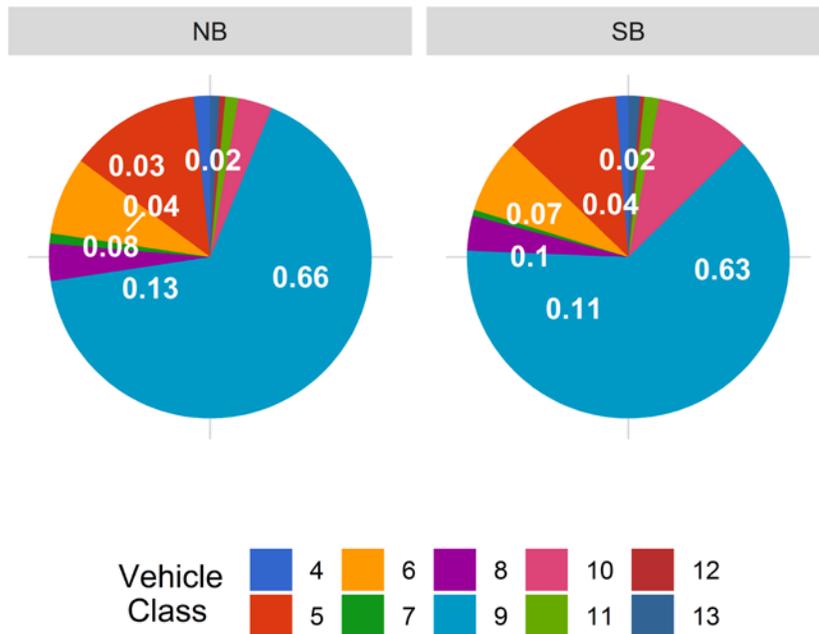


Figure 10 - Total Gross Vehicle Weight Percentage by Class and Lane

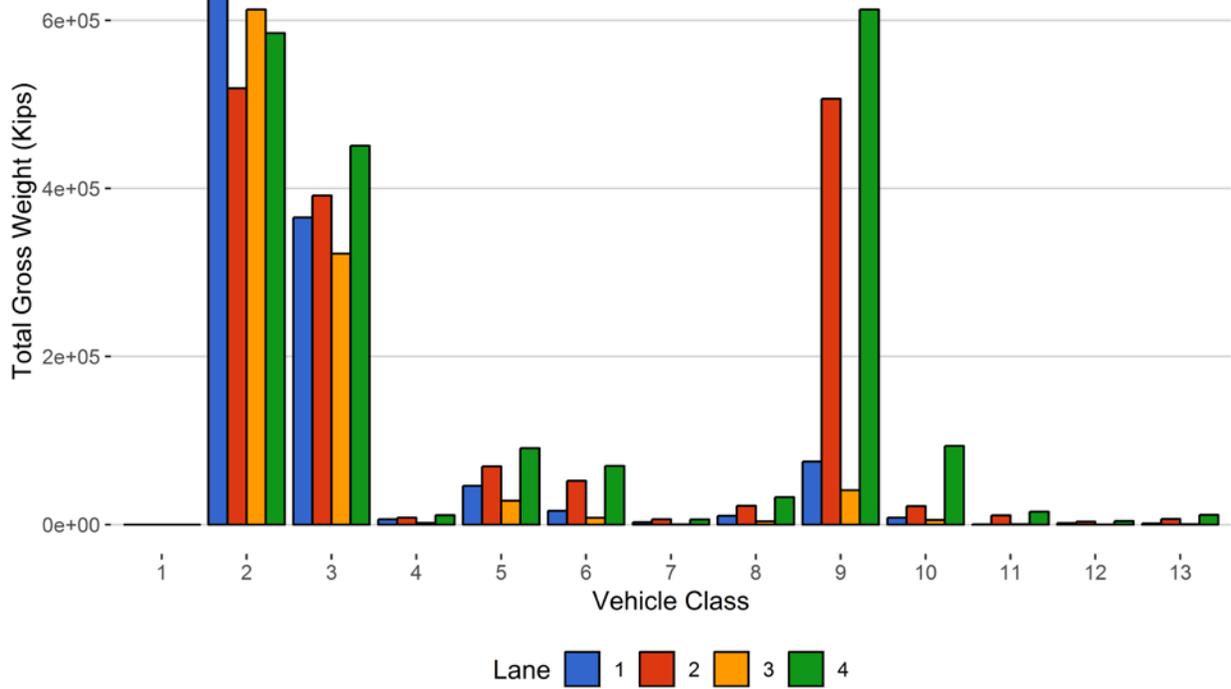


Figure 11 - Total Gross Vehicle Weight t

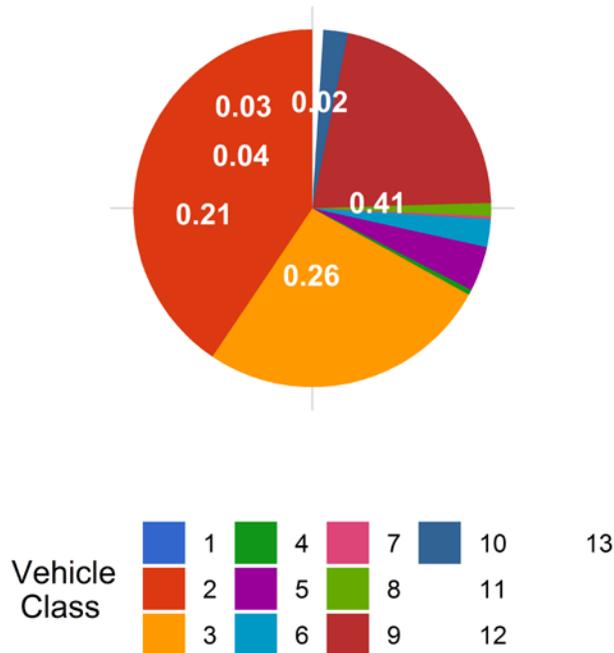


Figure 12 - Total ESALs by Class and Lane

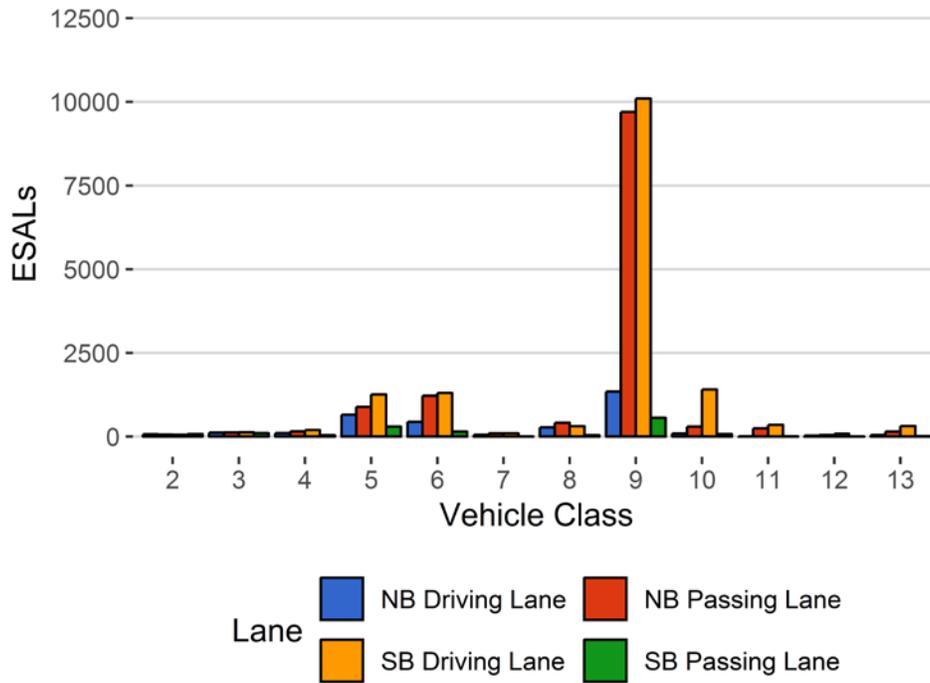


Figure 13 - ESALs by Class

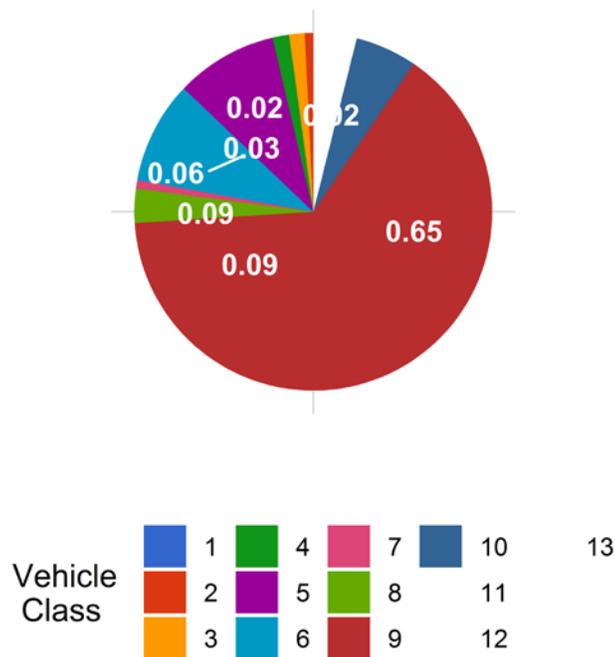


Table 1 Class 9 Front Axle Weight by Lane

<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>
February 2017	11.58	0.00	11.71	0.00	11.07	0.00	10.45	0.00
March 2017	11.67	0.74	12.00	2.43	11.10	0.26	10.50	0.53
April 2017	11.82	2.05	12.08	3.15	11.18	1.00	10.52	0.71
May 2017	11.94	3.09	12.35	5.42	11.14	0.64	10.57	1.18
June 2017	12.22	5.51	12.51	6.84	11.09	0.18	10.59	1.36
July 2017	12.23	5.63	12.54	7.05	11.23	1.46	10.64	1.87
August 2017	12.31	6.32	12.58	7.42	11.08	0.08	10.69	2.32
September 2017	12.29	6.17	12.70	8.41	11.20	1.18	10.66	2.06
October 2017	12.00	3.63	11.43	-2.37	11.35	2.52	10.72	2.56
November 2017	12.10	4.50	11.48	-1.96	11.37	2.73	10.77	3.08
December 2017	12.12	4.67	11.23	-4.12	11.38	2.82	10.82	3.54
January 2018	11.93	3.05	11.01	-6.00	11.30	2.06	10.63	1.69
February 2018	11.92	2.95	10.85	-7.39	11.33	2.33	10.43	-0.15
March 2018	11.95	3.20	11.06	-5.53	11.24	1.53	10.38	-0.63
April 2018	11.59	0.09	10.81	-7.70	10.89	-1.59	10.06	-3.69
May 2018	11.52	-0.49	10.58	-9.68	10.92	-1.34	10.09	-3.39
June 2018	11.60	0.17	10.69	-8.71	10.91	-1.39	10.16	-2.80
July 2018	11.82	2.08	10.77	-8.07	11.13	0.60	10.21	-2.33
August 2018	11.78	1.69	10.78	-7.92	11.08	0.13	10.21	-2.30
September 2018	11.73	1.30	10.85	-7.37	11.05	-0.18	10.24	-2.04
October 2018	11.57	-0.12	10.82	-7.60	11.12	0.47	10.20	-2.34
November 2018	11.43	-1.26	10.84	-7.47	11.13	0.55	10.19	-2.43

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	0	10	0	0	0
2	20557	616718	65.8	0	0
3	8913	267393	28.5	0	0
4	31	929	0.1	29	0.9
5	584	17526	1.9	320	9.7
6	156	4672	0.5	454	13.8
7	9	284	0	47	1.4
8	75	2238	0.2	103	3.1
9	809	24271	2.6	1771	53.9
10	78	2343	0.2	389	11.8
11	17	495	0.1	17	0.5
12	5	153	0	22	0.7
13	8	243	0	131	4
TOTAL	31243	937276	100	3283	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>
2018-11-27	Tuesday	10:56:36	10	SB	4	122.05
2018-11-20	Tuesday	15:54:28	10	SB	4	117.07
2018-11-28	Wednesday	16:10:07	10	SB	4	113.6
2018-11-16	Friday	13:24:04	10	NB	2	110.47
2018-11-06	Tuesday	15:37:40	10	NB	2	109.29
2018-11-19	Monday	12:34:49	10	NB	2	106.02
2018-11-06	Tuesday	22:51:14	10	SB	4	105.28
2018-11-20	Tuesday	06:09:30	10	SB	4	101.98
2018-11-30	Friday	09:35:31	10	SB	4	101.77
2018-11-21	Wednesday	11:16:32	10	SB	4	101.2

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	468	65	13.9	13753	818	3854
5	NB	8	8187	1098	13.4	107380	8000	25334
6	NB	19	2040	327	16	62903	5579	15178
7	NB	11.5	159	0	0	8990	0	3581
8	NB	31	946	419	44.3	22880	9805	3272
9	NB	33	9939	1467	14.8	539146	42474	129785
10	NB	33.5	559	121	21.6	26404	3595	5866
11	NB	36.5	202	1	0.5	11422	24	2043
12	NB	36.5	84	2	2.4	5179	29	1093
13	NB	31.5	94	0	0	7926	0	2482
TOTAL	****	****	22678	3500	****	805982	****	192487
<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	437	91	20.8	11978	1169	3394
5	SB	8	8877	1782	20.1	106873	12472	25057
6	SB	19	2509	447	17.8	70599	7227	15711
7	SB	11.5	118	0	0	6260	0	2451
8	SB	31	1233	728	59	18856	17474	1600
9	SB	33	13692	5173	37.8	511406	142443	115139
10	SB	33.5	1722	478	27.8	84737	14255	21532
11	SB	36.5	280	23	8.2	14998	788	2809
12	SB	36.5	65	1	1.5	4231	36	948
13	SB	31.5	143	0	0	12008	0	3752
TOTAL	****	****	29076	8723	****	841946	****	192392
GRAND TOTAL	****	****	51754	12223	320	1647928	266190	384879

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	2	5	2	1	11	0
2	634547	519135	612858	584791	2351331	40.6
3	365385	391576	322349	450916	1530225	26.4
4	6285	8285	1936	11211	27718	0.5
5	46115	69266	28428	90917	234726	4.1
6	16422	52061	8002	69824	146308	2.5
7	2829	6160	252	6007	15249	0.3
8	10394	22291	3752	32578	69015	1.2
9	74991	506629	40938	612911	1235468	21.3
10	8171	21828	5411	93582	128991	2.2
11	361	11086	452	15334	27233	0.5
12	1720	3488	129	4139	9476	0.2
13	1435	6491	392	11615	19934	0.3
TOTAL	1168657	1618301	1024902	1983827	5795686	100
GVW/LANE	20.16	27.92	17.68	34.23	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	0.0909
2	71	57	75	54	258	0.77	9e-04
3	117	125	103	127	471	1.4	0.0036
4	108	157	43	197	505	1.5	1.12
5	655	891	297	1261	3104	9.23	0.36
6	442	1219	152	1305	3117	9.26	1.37
7	52	97	3	102	255	0.76	1.82
8	274	413	43	309	1040	3.09	0.96
9	1346	9697	564	10099	21706	64.51	1.84
10	94	297	77	1409	1877	5.58	1.65
11	7	246	10	353	615	1.83	2.52
12	30	50	2	88	170	0.51	2.19
13	47	153	16	314	530	1.57	4.3
TOTAL	3242	13402	1385	15617	33646	100	18
ESALS/LANE	9.6	39.8	4.1	46.4	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>
Dec 2017	913329	29462	1624	862996	94.5	50333.1	5.5	60.5	39.5
Jan 2018	858959	27708	1616	808848	94.2	50110.6	5.8	60.1	39.9
Feb 2018	795786	28421	1662	749260	94.2	46525.6	5.8	59.1	40.9
Mar 2018	957360	30883	1728	903798	94.4	53562.5	5.6	60.8	39.2
Apr 2018	934763	31159	1628	885913	94.8	48850.1	5.2	60.9	39.1
May 2018	1053607	33987	1904	994590	94.4	59016.7	5.6	61.7	38.3
Jun 2018	1050563	35019	2037	989463	94.2	61099.9	5.8	60.7	39.3
Jul 2018	1102714	35571	2065	1038708	94.2	64005.8	5.8	59	41
Aug 2018	1185009	38226	2338	1112539	93.9	72469.6	6.1	61.4	38.6
Sep 2018	1060284	35343	2000	1000271	94.3	60012.8	5.7	62.2	37.8
Oct 2018	1084866	34996	2132	1018760	93.9	66105.8	6.1	61.6	38.4
Nov 2018	937276	31242	1772	884121	94.3	53154.6	5.7	60.6	39.4
TOTAL	11934516	-	-	11249267	-	685247	-	-	-
AVERAGE	994543	32668	1876	937439	94	57104	6	61	39

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>
Dec 2017	5033	14652	1411	18341	39436	59	41	3.4
Jan 2018	3867	13495	1148	15629	34139	57	43	3.7
Feb 2018	4269	13000	1411	14675	33354	57	43	2.6
Mar 2018	4256	15982	1290	16709	38236	55	45	3.5
Apr 2018	2887	12198	902	12945	28932	55	45	0.4
May 2018	4057	12762	1206	16207	34231	59	41	1.4
Jun 2018	4502	14753	1337	17081	37672	57	43	1.4
Jul 2018	5462	15767	2447	17423	41100	56	44	1.5
Aug 2018	5680	16641	2158	21001	45480	59	41	2.5
Sep 2018	6002	14061	1404	17344	38811	60	40	2.7
Oct 2018	4620	15798	1569	19426	41414	58	42	1.3
Nov 2018	3470	13548	1397	15667	34082	56	44	2.6
TOTAL	54106	172657	17679	202446	446888	-	-	-
AVERAGE	4509	14388	1473	16870	37241	57	43	2

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>
Dec 2017	1100540	1437948	924675	1711001	5174164
Jan 2018	1096990	1404045	940384	1574511	5015929
Feb 2018	1259004	1655262	1055154	1973361	5942780
Mar 2018	1149562	1493254	972731	1803124	5418670
Apr 2018	1319432	1720244	1091705	2152815	6284196
May 2018	1325028	1870703	1115831	2261593	6573155
Jun 2018	1448213	1938169	1296696	2275279	6958356
Jul 2018	1453125	2018291	1322478	2609501	7403395
Aug 2018	1389961	1747847	1152367	2222883	6513058
Sep 2018	1308390	1827931	1110723	2293147	6540191
Oct 2018	1176117	1623806	1025112	1985221	5810257
Nov 2018	1216056	1589362	1057242	1926795	5789455
TOTAL	15242419	20326861	13065098	24789229	73423607
AVERAGE	1270202	1693905	1088758	2065769	6118634

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>
Dec 2017	6568	0.7	13.3	253	88
Jan 2018	4336	0.5	9.3	204	55
Feb 2018	4386	0.6	9.6	178	48
Mar 2018	4983	0.5	9.5	232	58
Apr 2018	2100	0.2	4.5	57	25
May 2018	2603	0.3	4.6	159	67
Jun 2018	3262	0.3	5.4	158	73
Jul 2018	4147	0.4	6.6	187	75
Aug 2018	4748	0.4	6.8	226	74
Sep 2018	4151	0.4	7.1	220	70
Oct 2018	4558	0.5	7.4	184	71
Nov 2018	3394	0.4	6.5	209	75
TOTAL	49236	-	-	2267	779
AVERAGE	4103	0.4	7.5	188.9	64.9

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>
Dec 2017	206917	196474	403391	51.3	48.7
Jan 2018	193276	170391	363667	53.1	46.9
Feb 2018	190177	163838	354015	53.7	46.3
Mar 2018	219841	189443	409283	53.7	46.3
Apr 2018	176275	162266	338541	52.1	47.9
May 2018	195567	213437	409004	47.8	52.2
Jun 2018	219771	218945	438715	50.1	49.9
Jul 2018	234161	233004	467165	50.1	49.9
Aug 2018	247311	274046	521356	47.4	52.6
Sep 2018	222327	220969	443297	50.2	49.8
Oct 2018	223564	249546	473110	47.3	52.7
Nov 2018	192487	192392	384879	50	50
TOTAL	2521674	2484750	5006424	-	-
AVERAGE	210139.5	207062.5	417202	50.6	49.4