

JANUARY 2019



**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 January 2019. 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. 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: 881451 | Passenger Vehicles: 831226 | Heavy Commercial Vehicles: 50225

Monthly Average Daily Traffic (MADT): 28434 | Monthly Heavy Commercial Average Daily Traffic (MHCADT): 1620

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 50225 HCVs, 2885 of them were overweight ³. These overweight HCVs contributed to 0.3% of total monthly volume, and 5.9% of total monthly

HCV volume. NB overweight vehicles typically reached highest numbers on Wednesdays, 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 6 vehicles . Overall, overweight vehicles tended to reach peak volume concentrations during typical business hours, with 53% of all overweight vehicles traveling SB 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 March.

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 report ⁴.

Using normal load limits ,46 NB vehicles exceeded 88,000 pounds (27 vehicles were Class 10's; 14 vehicles were Class 13's). Of vehicles traveling SB,

91 NB vehicles exceeded 88,000 pounds (68 vehicles were Class 10's; 15 vehicles were Class 13's). Refer to Table 3 for the Top 10 highest recorded GVWs from Classes 9 and 10 from January 2019.

Loaded vs. Unloaded HCVs. Figure 10 shows the GVW distributions of Class 9s and 10s in January 2019. 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 empty class 10 vehicles.

Freight Totals. A total of 352053 tons of freight was recorded to have crossed the WIM. More freight was shipped SB (50.2%) than NB (49.8%). 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 881451 vehicles with a combined GVW of 5396712 kips (1 kip = 1,000 pounds = 0.5 tons) in January 2019. See Table 5 and Figures 12-13 for GVW information by vehicle class and lane.

Pavement Design. A total of 31893 equivalent single axle loads (ESALs) passed over the pavement at this site. Approximately 51.2% of all ESALs were recorded SB while 48.8% was observed NB. In particular, 63% 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).

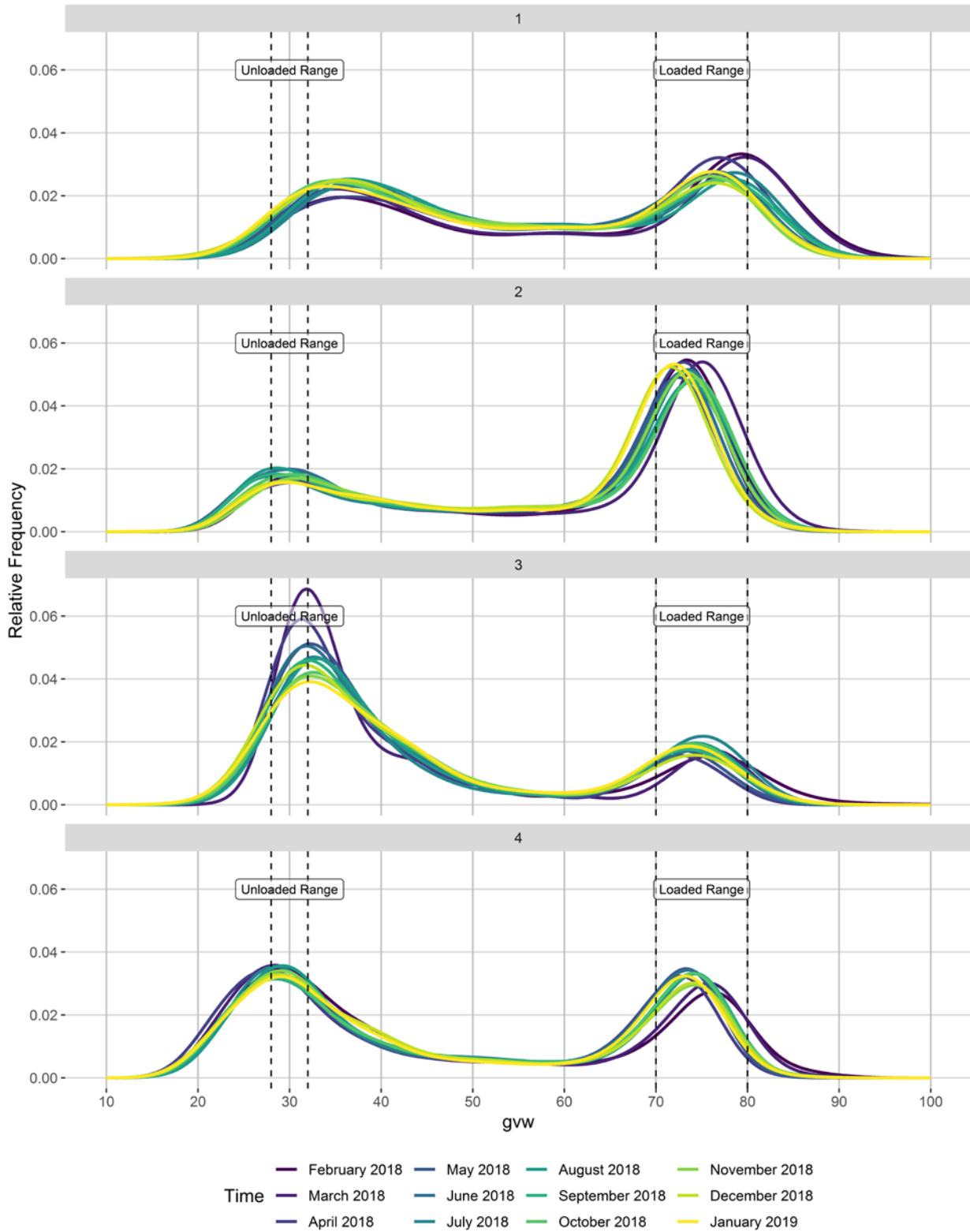
WIM monthly reports can be found at: <http://www.dot.state.mn.us/traffic/data/reports-monthly-wim.html>

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.

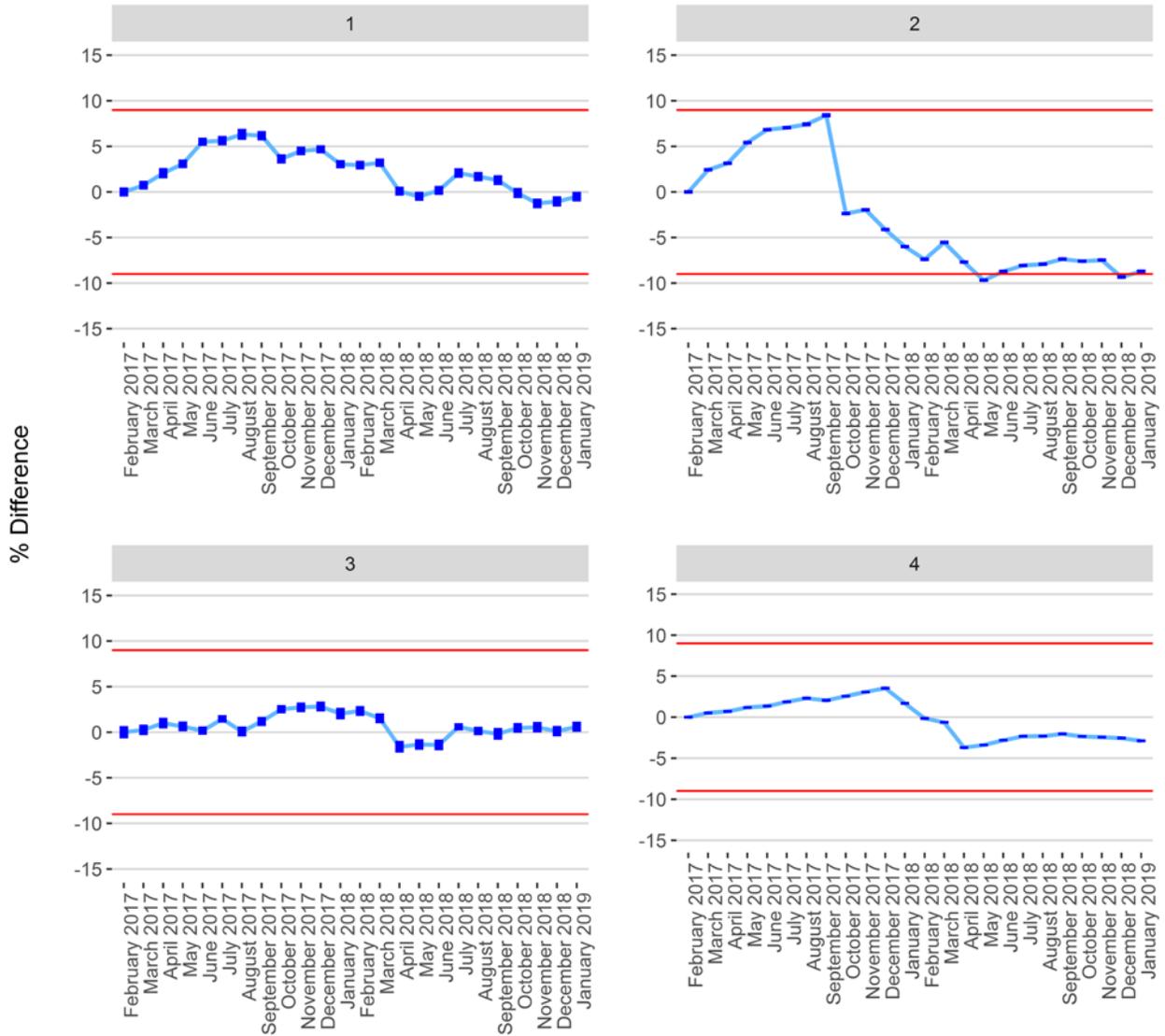
To request this document in an alternative format, please call 651-366-4718 or 1-800-657-3774, or email your request to ADArequest.dot@state.mn.us. Please request at least one week in advance.

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

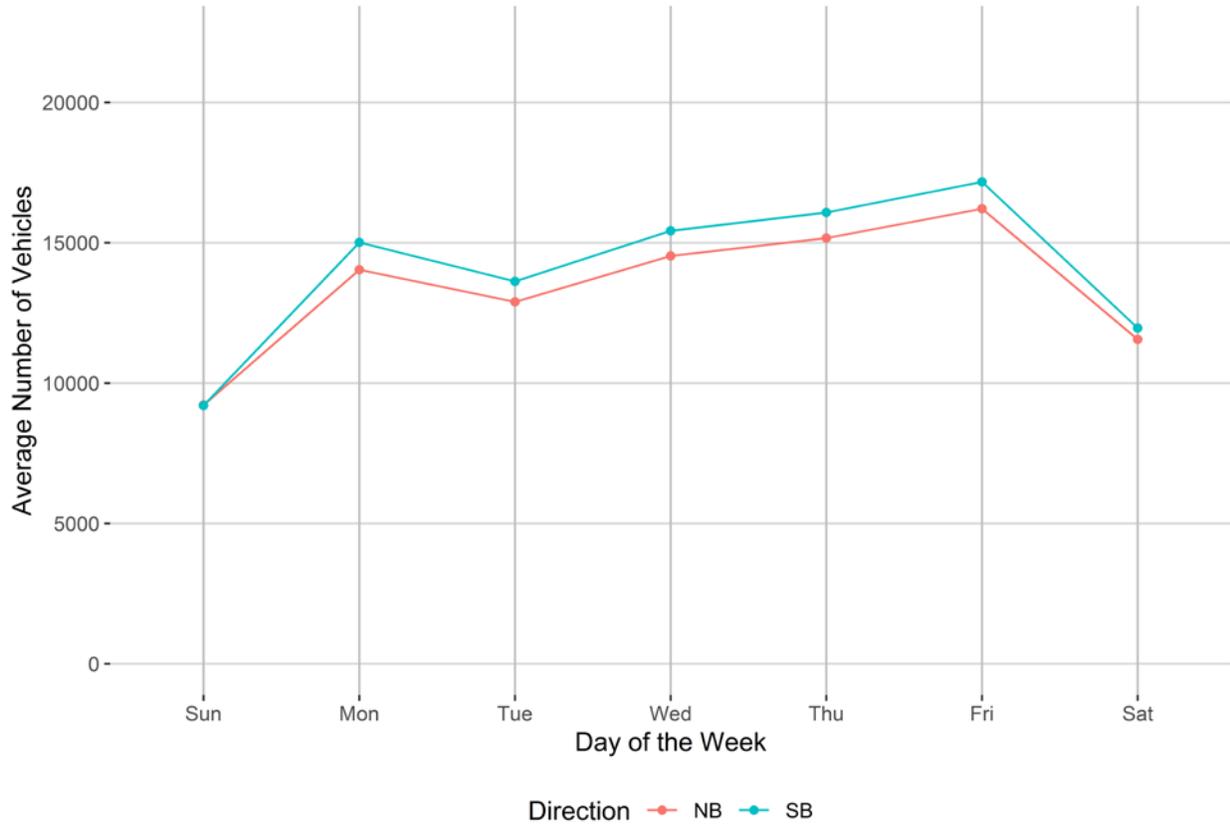


Figure 3 - Average Overweight Vehicle Volume vs. Day of the Week

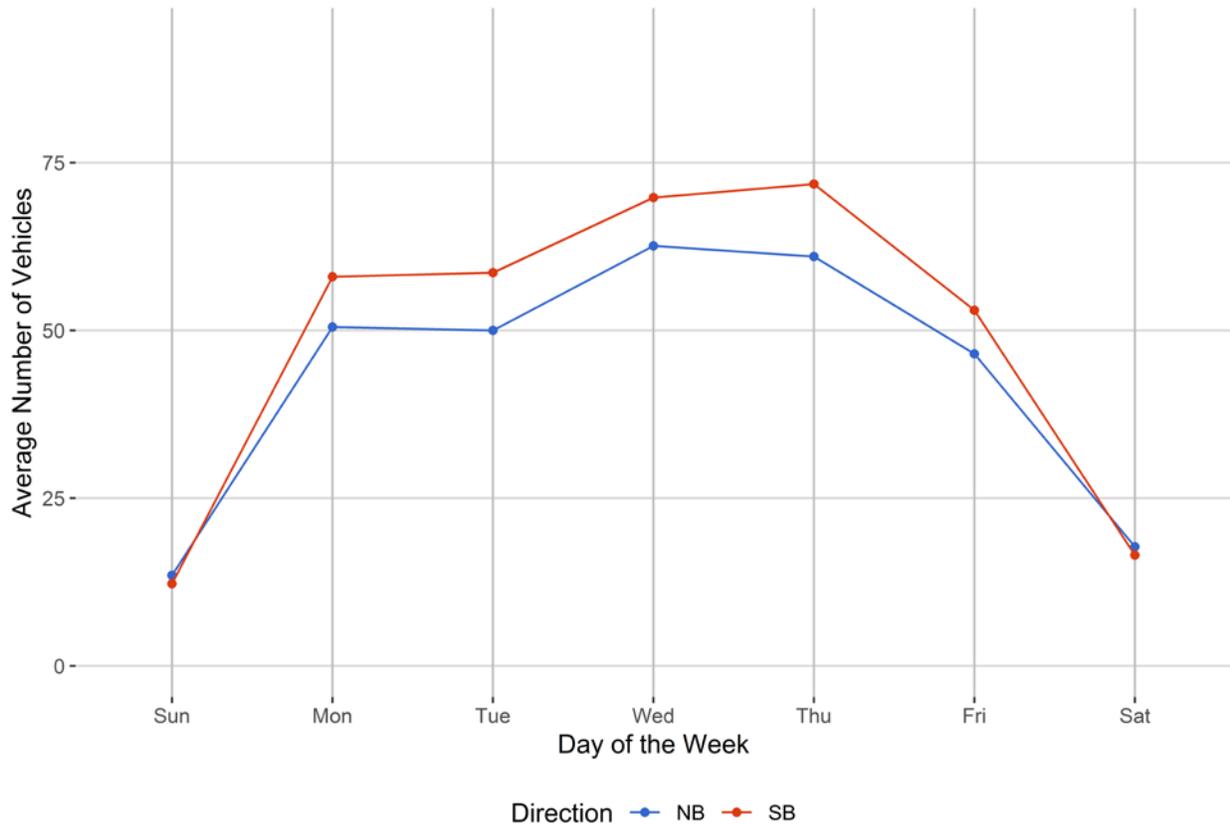


Figure 4 - Passenger Vehicles vs. Hour of the Day

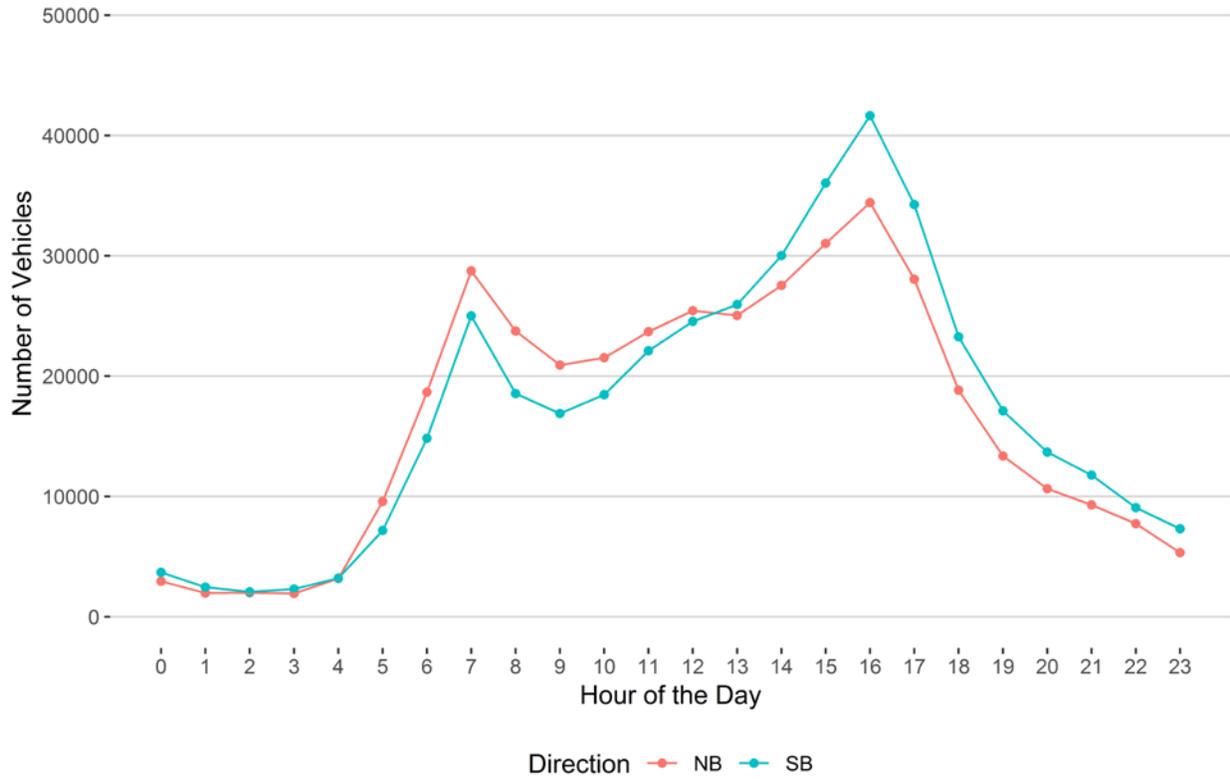


Figure 5 - Heavy Commercial Vehicles vs. Hour of the Day

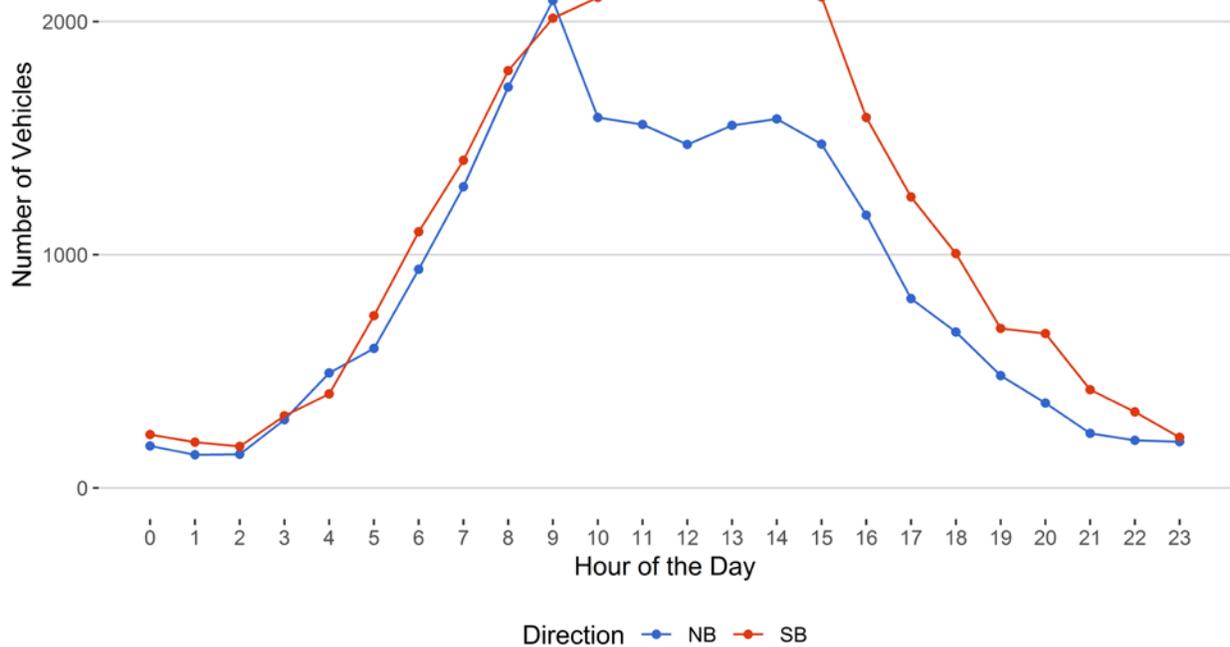


Figure 6 - Overweight Vehicles by Class vs. Hour of the Day

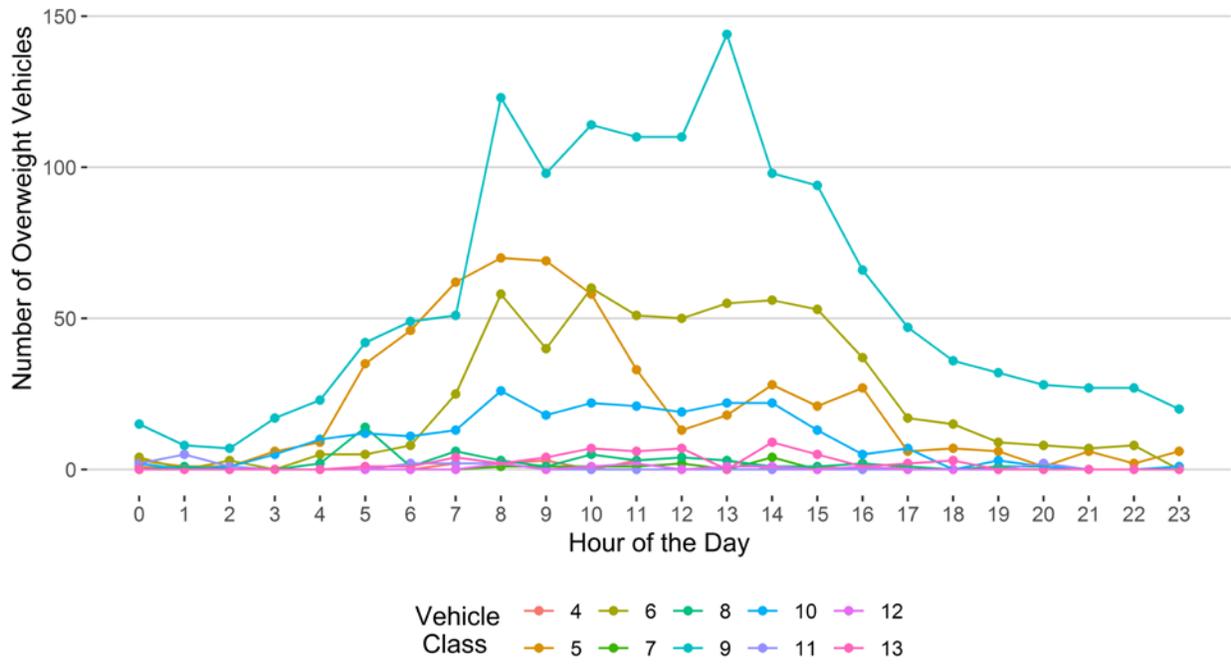


Figure 7 - Overweight Vehicles by Direction
Hour of the Day

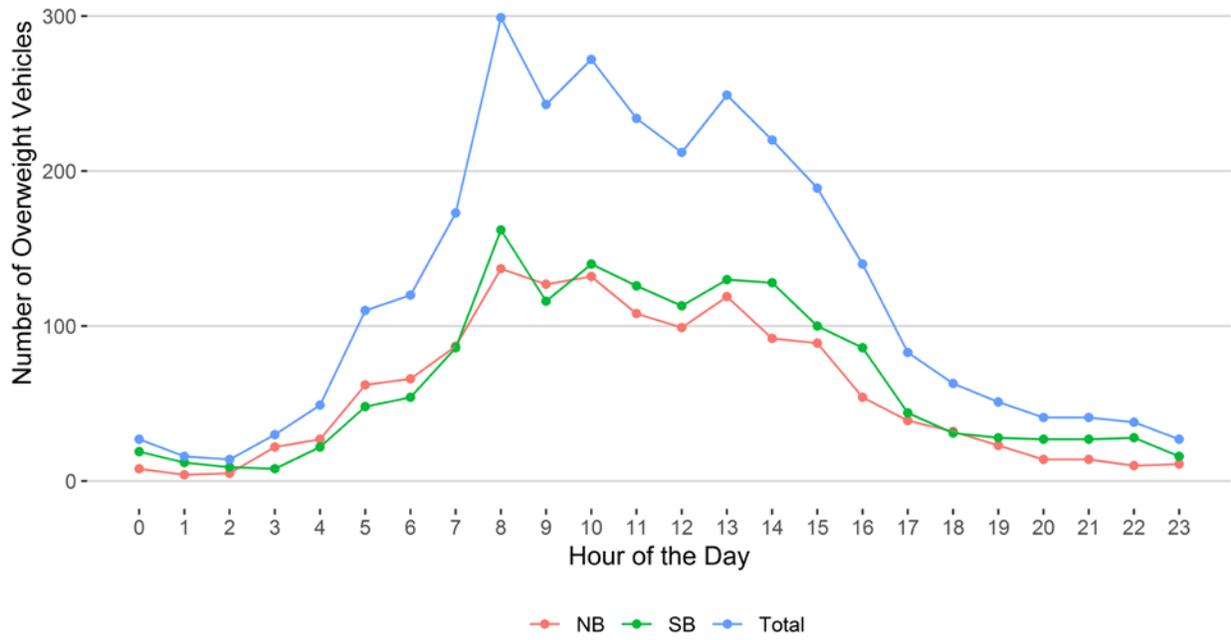
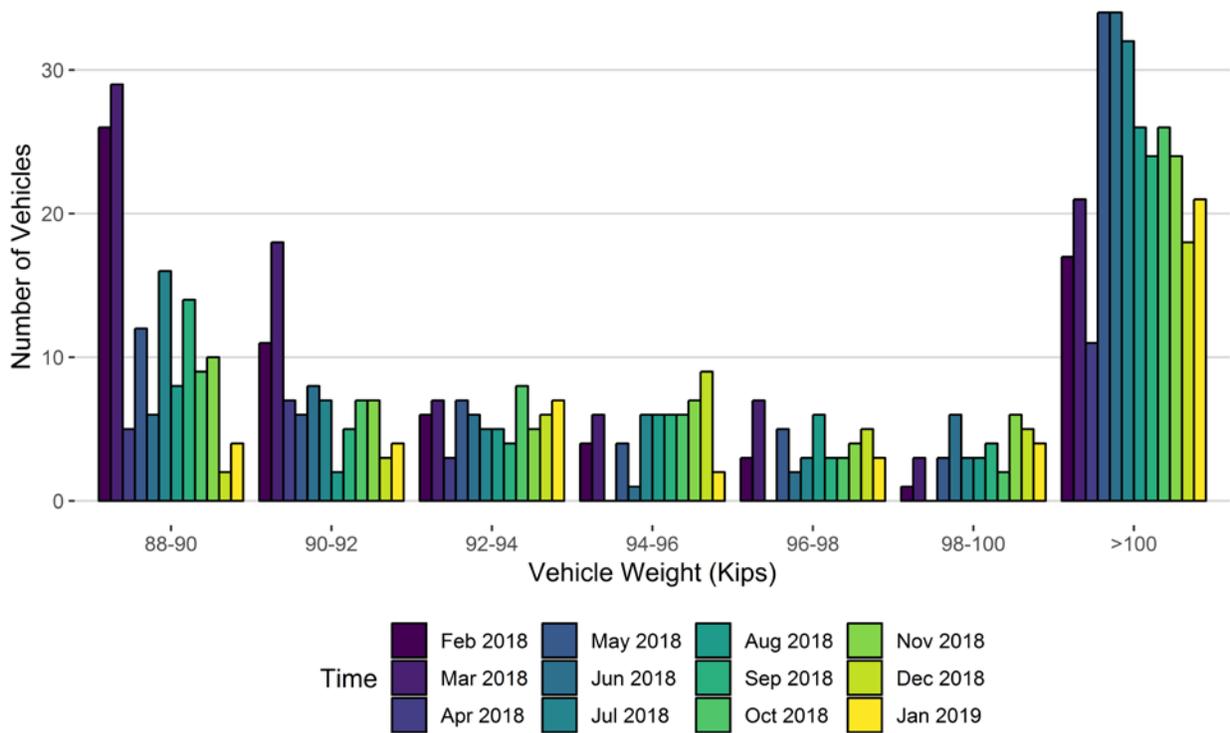
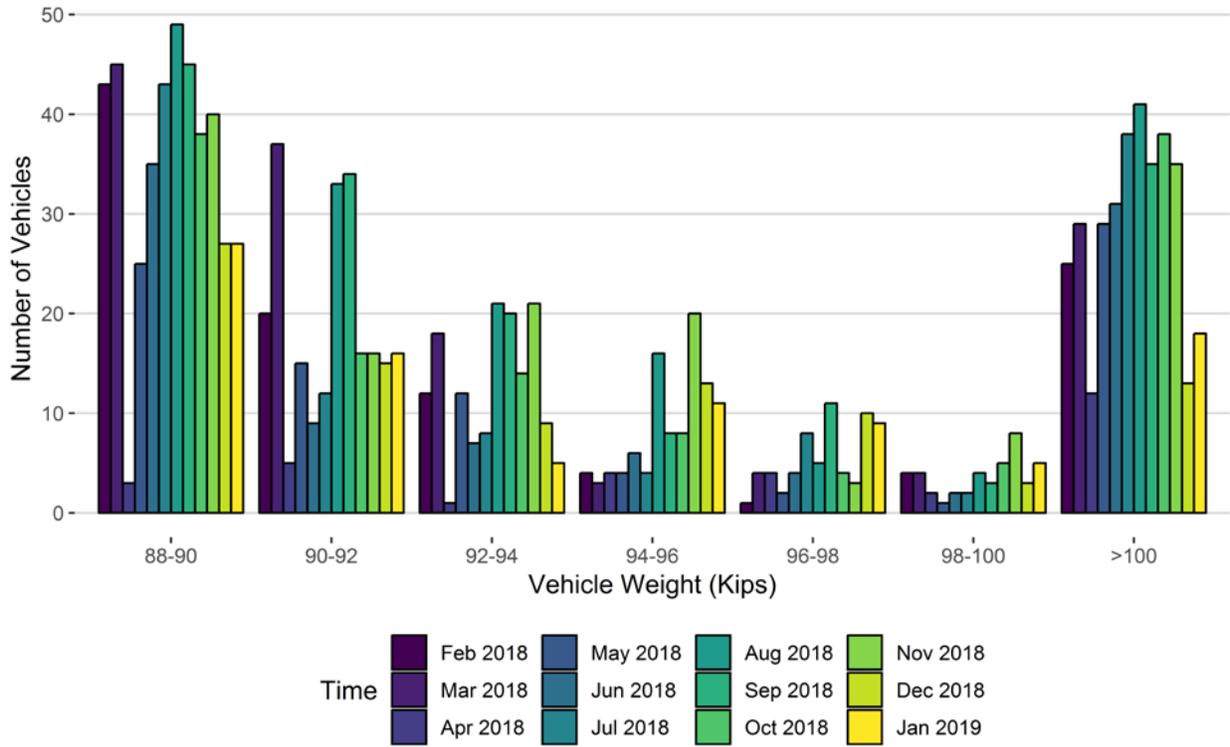


Figure 8 - Histogram of NB Vehicles Over 88,000 Pounds for Current Month



Vehicle Weights (Kips)	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018	Jan 2019
88-90	26	29	5	12	6	16	8	14	9	10	2	4
90-92	11	18	7	6	8	7	2	5	7	7	3	4
92-94	6	7	3	7	6	5	5	4	8	5	6	7
94-96	4	6	0	4	1	6	6	6	6	7	9	2
96-98	3	7	0	5	2	3	6	3	3	4	5	3
98-100	1	3	0	3	6	3	3	4	2	6	5	4
>100	17	21	11	34	34	32	26	24	26	24	18	21
Total	68	91	26	71	63	72	56	60	61	63	48	45

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



Vehicle Weights (Kips)	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018	Jan 2019
88-90	43	45	3	25	35	43	49	45	38	40	27	27
90-92	20	37	5	15	9	12	33	34	16	16	15	16
92-94	12	18	1	12	7	8	21	20	14	21	9	5
94-96	4	3	4	4	6	4	16	8	8	20	13	11
96-98	1	4	4	2	4	8	5	11	4	3	10	9
98-100	4	4	2	1	2	2	4	3	5	8	3	5
>100	25	29	12	29	31	38	41	35	38	35	13	18
Total	109	140	31	88	94	115	169	156	123	143	90	91

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

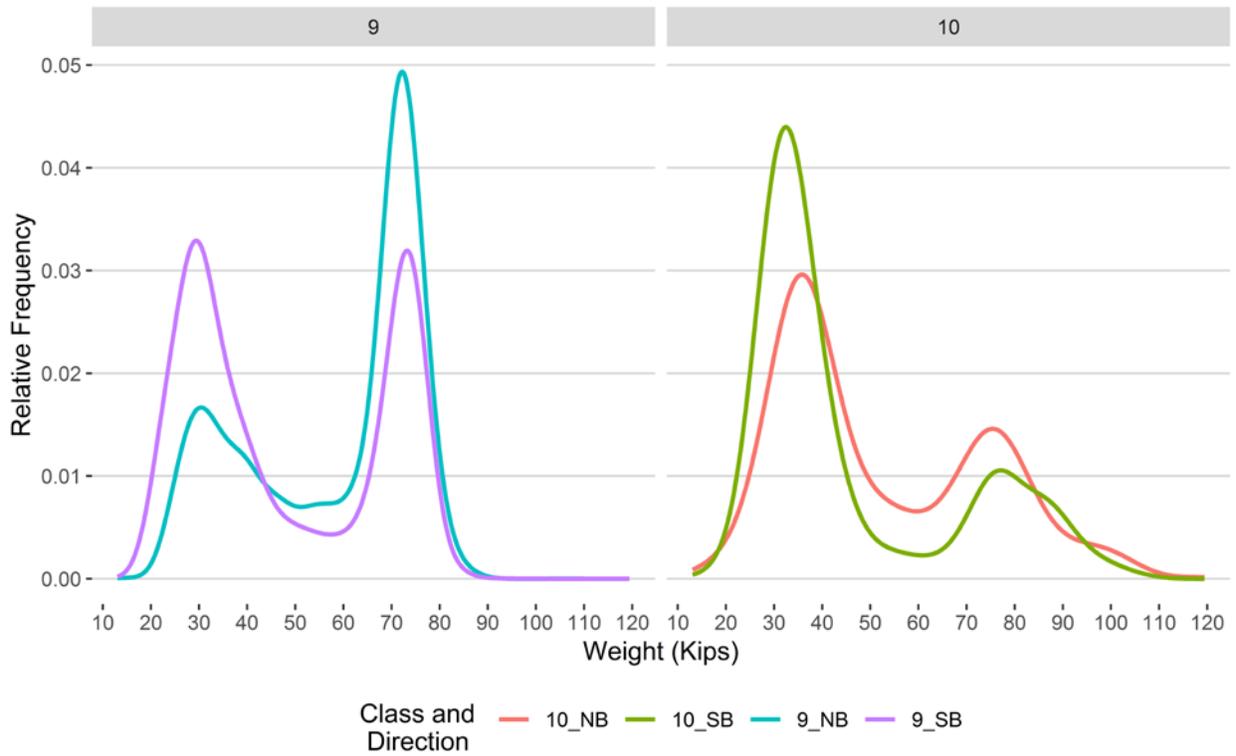


Figure 9 - Freight Percentage by Direction and Class

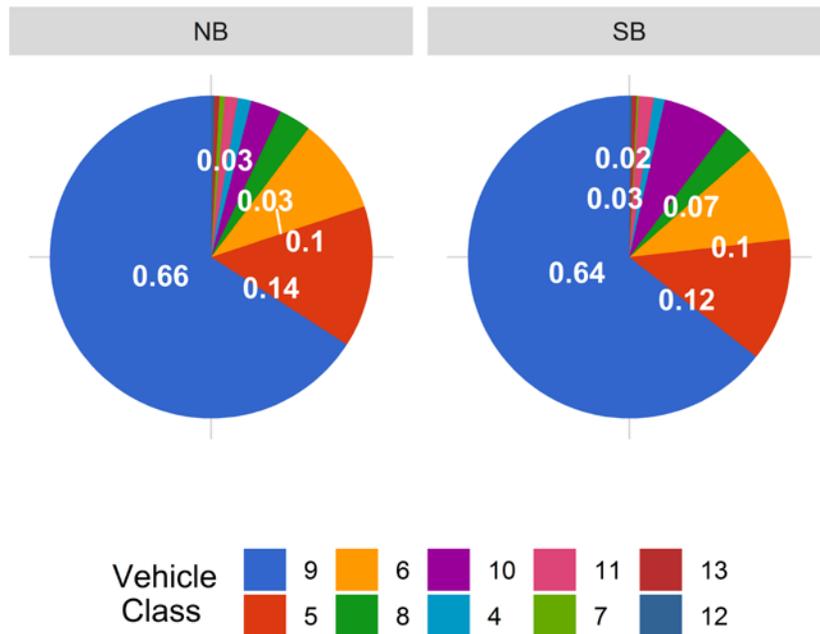


Figure 10 - Total Gross Vehicle Weight Percentage by Class and Lane

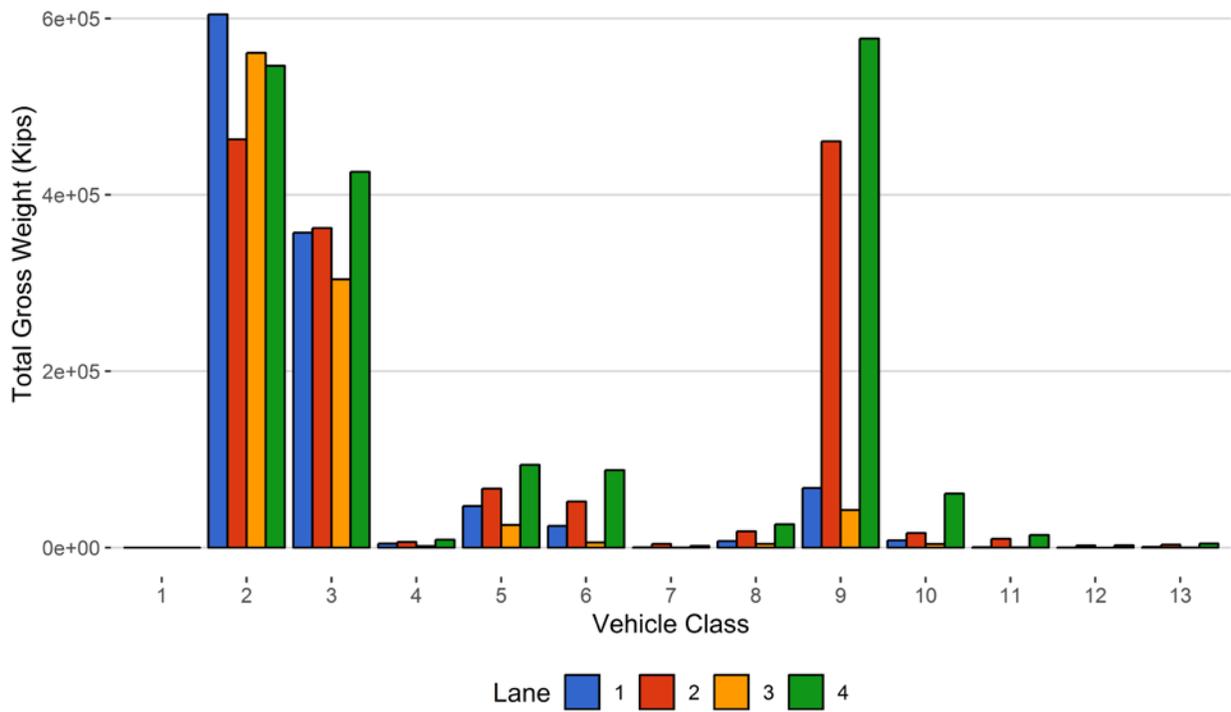


Figure 11 - Total Gross Vehicle Weight t

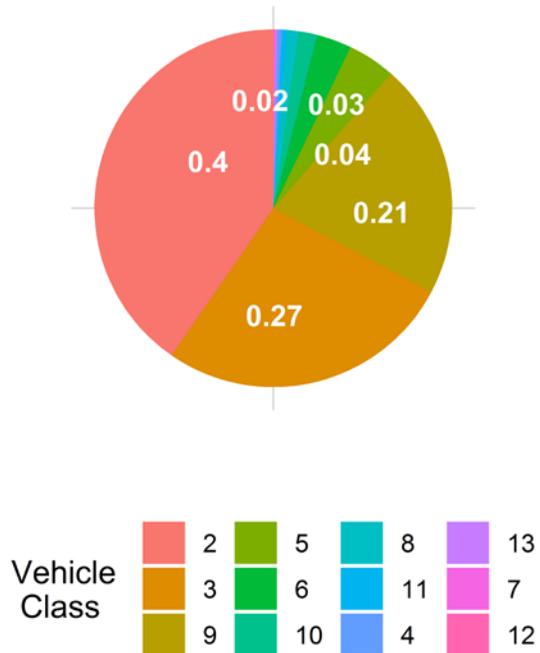


Figure 12 - Total ESALs by Class and Lane

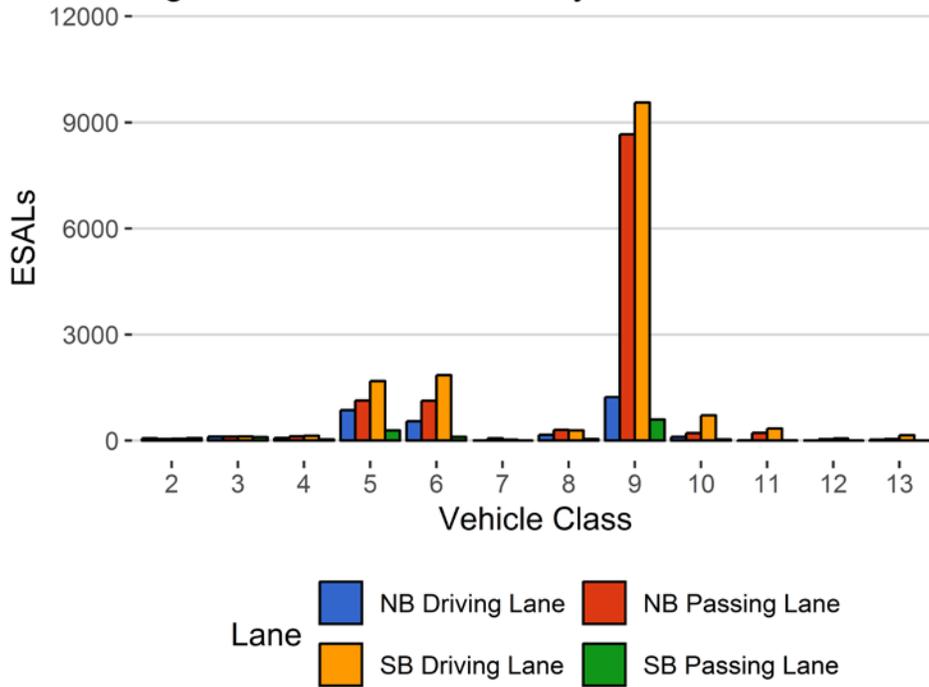


Figure 13 - ESALs by Class

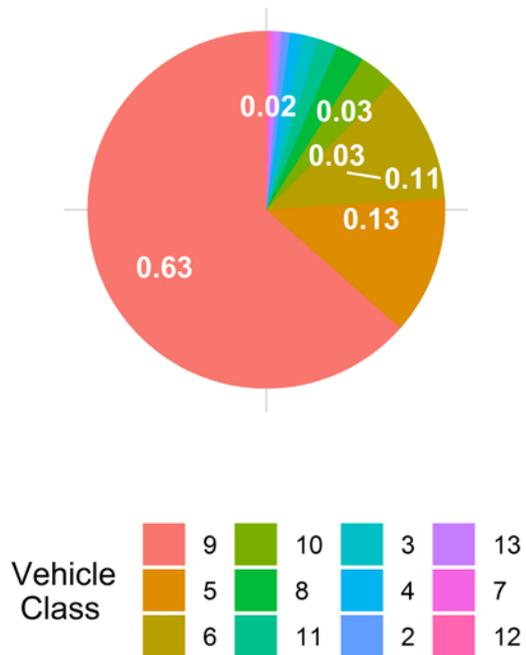


Table 1 Class 9 Front Axle Weight by Lane

<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
December 2018	11.46	-1.04	10.62	-9.33	11.08	0.12	10.18	-2.54
January 2019	11.52	-0.51	10.69	-8.70	11.14	0.60	10.15	-2.88

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	0	0	0	0
2	18561	575406	65.3	0	0
3	8252	255820	29	0	0
4	24	736	0.1	20	0.7
5	551	17086	1.9	534	18.5
6	171	5309	0.6	574	19.9
7	4	127	0	11	0.4
8	60	1859	0.2	50	1.7
9	727	22522	2.6	1386	48
10	63	1947	0.2	234	8.1
11	14	446	0.1	16	0.6
12	3	86	0	8	0.3
13	3	107	0	52	1.8
TOTAL	28434	881451	100	2885	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>
2019-01-21	Monday	14:09:57	10	NB	2	119.44
2019-01-02	Wednesday	05:47:12	9	NB	1	106.05
2019-01-02	Wednesday	10:35:26	10	SB	4	105.89
2019-01-08	Tuesday	13:17:19	10	SB	4	104.48
2019-01-18	Friday	23:58:38	10	NB	1	104.39
2019-01-22	Tuesday	20:56:17	10	SB	4	103.58
2019-01-09	Wednesday	10:32:57	10	SB	4	103.37
2019-01-28	Monday	04:20:01	10	NB	1	103.06
2019-01-23	Wednesday	08:41:17	10	SB	4	102.86
2019-01-14	Monday	15:41:00	10	SB	4	102.83

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	356	53	14.9	10214	674	2835
5	NB	8	7883	1100	14	106017	7955	25876
6	NB	19	2370	321	13.5	71580	5385	16325
7	NB	11.5	81	0	0	4359	0	1714
8	NB	31	795	349	43.9	17812	7974	1993
9	NB	33	9026	1358	15	489462	38643	118209
10	NB	33.5	472	84	17.8	22222	2473	4612
11	NB	36.5	181	2	1.1	10255	56	1861
12	NB	36.5	43	2	4.7	2470	48	487
13	NB	31.5	49	0	0	4088	0	1272
TOTAL	****	****	21256	3269	****	738478	****	175183
<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	359	71	19.8	9715	897	2697
5	SB	8	8716	1651	18.9	107949	11466	25715
6	SB	19	2788	465	16.7	85972	7511	20917
7	SB	11.5	42	0	0	1940	0	728
8	SB	31	1011	559	55.3	17018	13446	1503
9	SB	33	12854	4657	36.2	492224	127485	110862
10	SB	33.5	1420	586	41.3	47678	17588	9870
11	SB	36.5	252	9	3.6	14150	313	2640
12	SB	36.5	41	1	2.4	2473	34	506
13	SB	31.5	55	0	0	4596	0	1432
TOTAL	****	****	27538	7999	****	783714	****	176870
GRAND TOTAL	****	****	48794	11268	319	1522193	241947	352053

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>
2	604753	462935	561134	546516	2175338	40.4
3	357069	362403	304336	426233	1450041	26.9
4	4539	6349	1725	8886	21499	0.4
5	47200	66772	25599	93816	233387	4.3
6	24651	52315	5697	87786	170448	3.2
7	213	4146	64	1876	6299	0.1
8	7328	18457	4170	26294	56249	1
9	67492	460613	42531	577178	1147814	21.3
10	8211	16484	3998	61268	89960	1.7
11	390	9922	224	14239	24775	0.5
12	37	2481	0	2507	5024	0.1
13	841	3246	125	4471	8684	0.2
TOTAL	1122724	1466121	949603	1851070	5389518	100
GVW/LANE	20.83	27.2	17.62	34.35	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>
2	67	48	70	50	235	0.74	8e-04
3	112	109	98	116	435	1.38	0.0035
4	79	119	33	140	371	1.17	1.04
5	865	1135	289	1685	3974	12.58	0.48
6	547	1129	104	1852	3631	11.5	1.41
7	3	70	3	32	108	0.34	1.71
8	163	304	48	289	804	2.54	0.89
9	1233	8662	596	9560	20052	63.48	1.84
10	106	214	32	715	1068	3.38	1.13
11	7	220	5	345	578	1.83	2.63
12	0	40	0	62	102	0.32	2.25
13	29	46	1	153	230	0.73	4.04
TOTAL	3212	12096	1281	14998	31588	100	17
ESALS/LANE	10.2	38.3	4.1	47.5	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>
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
Dec 2018	930046	30002	1504	883414	95	46632.1	5	60.6	39.4
Jan 2019	881451	28434	1620	831226	94.3	50225.1	5.7	61.3	38.7
TOTAL	11973725	-	-	11292063	-	681661	-	-	-
AVERA GE	997810	32774	1866	941005	94	56805	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>
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
Dec 2018	3150	10517	1329	12758	27753	57	43	2.4
Jan 2019	3323	12230	1296	15044	31893	58	42	2.1
TOTAL	51678	167257	17746	196279	432959	-	-	-
AVERAGE	4306	13938	1479	16357	36080	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>
Feb 18	1096990	1404045	940384	1574511	5015929
Mar 18	1259004	1655262	1055154	1973361	5942780
Apr 18	1149562	1493254	972731	1803124	5418670
May 18	1319432	1720244	1091705	2152815	6284196
Jun 18	1325028	1870703	1115831	2261593	6573155
Jul 18	1448213	1938169	1296696	2275279	6958356
Aug 18	1453125	2018291	1322478	2609501	7403395
Sep 18	1389961	1747847	1152367	2222883	6513058
Oct 18	1308390	1827931	1110723	2293147	6540191
Nov 18	1176117	1623806	1025112	1985221	5810257
Dec 18	1149792	1476541	1030529	1815082	5471944
Jan 19	1125027	1469786	949823	1852076	5396712
TOTAL	15200641	20245878	13063533	24818592	73328644
AVERAGE	1266720	1687157	1088628	2068216	6110720

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>
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
Dec 2018	2392	0.3	5.2	140	40
Jan 2019	2941	0.3	6	137	49
TOTAL	43665	-	-	2087	725
AVERAGE	3638.8	0.4	6.6	173.9	60.4

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>
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
Dec 2018	158161	156474	314635	50.3	49.7
Jan 2019	175183	176870	352053	49.8	50.2
TOTAL	2454824	2451230	4906054	-	-
AVERAGE	204568.6	204269.2	408837.8	50.2	49.8