

APRIL 2019



**WIM #30  
MN 61, MP 16.3  
TWO HARBORS,  
MN**

**MONTHLY  
REPORT**



*Your Destination...Our Priority*



## WIM Site Location

WIM #30 is located on MN 61 near Two Harbors in Lake county.

## System Operation

WIM #30 was operational for the entire month of April 2019. Volume was computed using all monthly data.

## System Calibration

WIM #30 was most recently calibrated on 2017-01-20. Table 1 summarizes the front axle weights of class 9s by lane <sup>1</sup>. Figure 1 shows the distribution of gross vehicle weights (GVW) in Class 9 vehicles at this site for the last 12 months of operation <sup>2</sup>. 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: 213284 | Passenger Vehicles: 200549 | Heavy Commercial Vehicles: 12735

Monthly Average Daily Traffic (MADT): 7109 | Monthly Heavy Commercial Average Daily Traffic (MHCADT): 424

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 Thursdays (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 12 PM and 04 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 12 PM and 04 PM. See Figure 6. Out of all HCVs, the two highest traffic volumes were generated by Class 5's and Class 9's.

### Overweight HCVs

**Volume trends.** Of a total of 12735 HCVs, 2099 of them were overweight <sup>3</sup>. These overweight HCVs contributed to 1% of total monthly volume, and 16.6% of total monthly

HCV volume. NB overweight vehicles typically reached highest numbers on Tuesdays, with lowest volumes reported on Saturdays. SB overweight vehicles tended to reach highest volumes on Wednesdays, with lowest volumes reported on Saturdays. 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 55% 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 <sup>4</sup>.

Using normal load limits ,341 NB vehicles exceeded 88,000 pounds (299 vehicles were Class 9's; 29 vehicles were Class 10's). Of vehicles traveling SB,

423 NB vehicles exceeded 88,000 pounds (349 vehicles were Class 10's; 61 vehicles were Class 9's). Refer to Table 3 for the Top 10 highest recorded GVWs from Classes 9 and 10 from April 2019.

**Loaded vs. Unloaded HCVs.** Figure 10 shows the GVW distributions of Class 9s and 10s in April 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 fully\_loaded class 10 vehicles.

**Freight Totals.** A total of 103001 tons of freight was recorded to have crossed the WIM. More freight was shipped SB (51.5%) than NB (48.5%). See Table 4 and Figure 11 for more freight information.

### Infrastructure Considerations

**Bridge.** Bridges No. 9341 and No. 9339, which are respectively on the NB and SB side of MN 61, are approximately 1.5 miles north of WIM #30. Bridge No. 9333 (a box culvert) is approximately 1.8 miles south of WIM #30. WIM #30 recorded a total of 213284 vehicles with a combined GVW of 1497367 kips (1 kip = 1,000 pounds = 0.5 tons) in April 2019. See Table 5 and Figures 12-13 for GVW information by vehicle class and lane.

**Pavement Design.** A total of 11019 equivalent single axle loads (ESALs) passed over the pavement at this site. Approximately 50.9% of all ESALs were recorded SB while 49.1% was observed NB. In particular, 56% of all ESALs were generated by the Class 9's (Class 9's were also responsible for generating 16% 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).

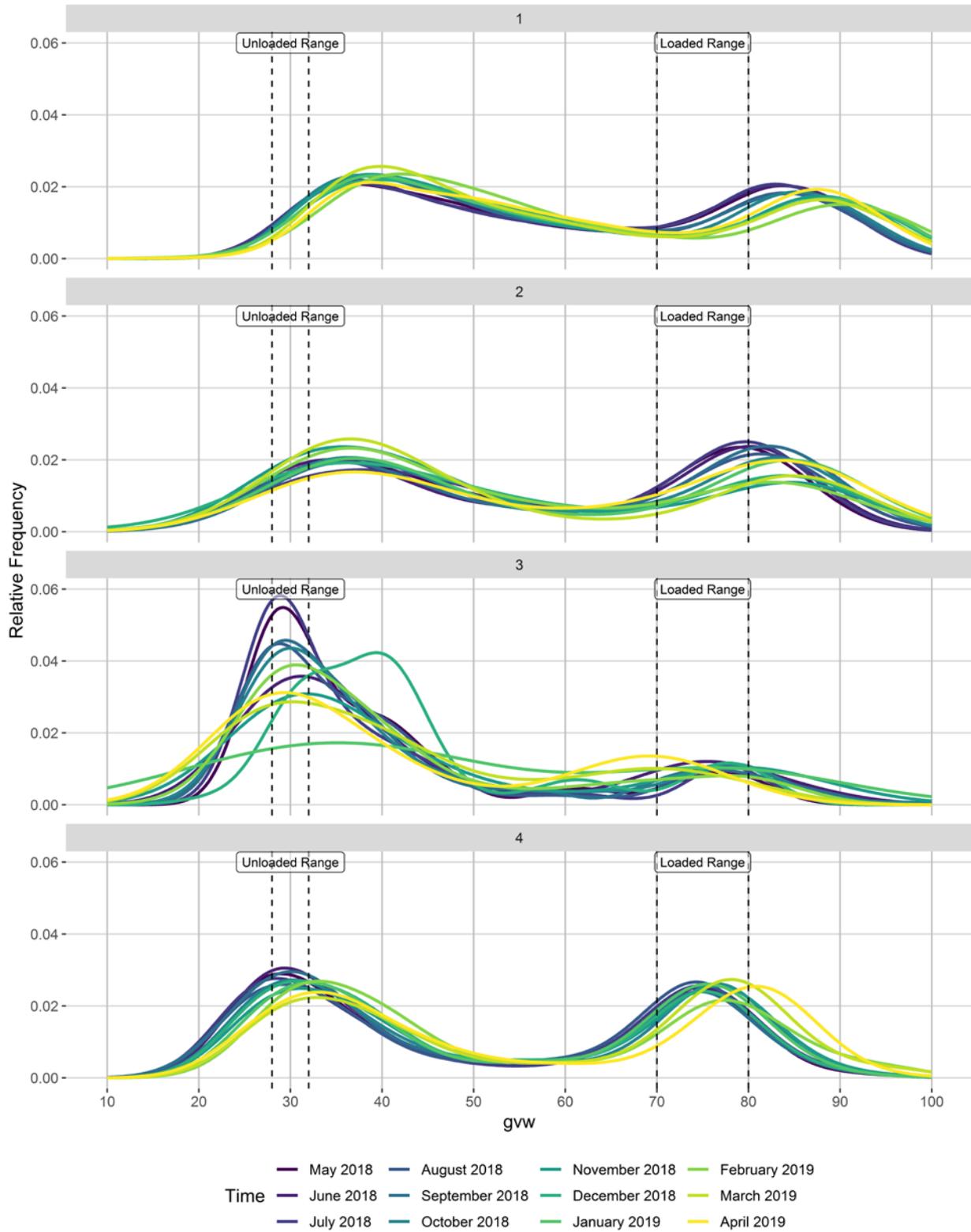
WIM monthly reports can be found at: <http://www.dot.state.mn.us/traffic/data/reports-monthly-wim.html>

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>

- <sup>1</sup> 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
- <sup>2</sup> 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.
- <sup>3</sup> 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](http://www.mrr.dot.state.mn.us/research/seasonal_load_limits/sllindex.asp)
- <sup>4</sup> 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.

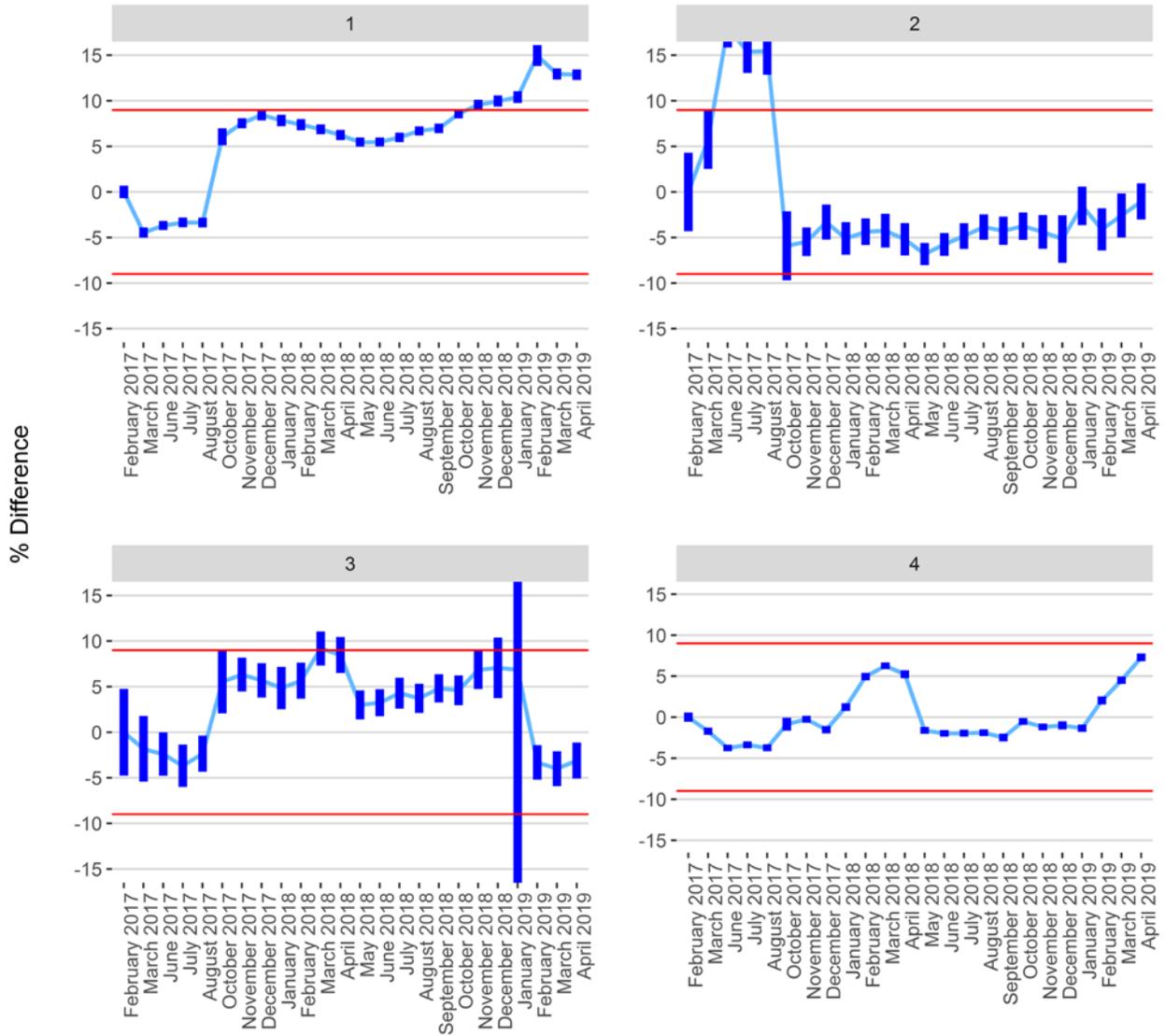
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Figure 1 - Monthly Class 9 GVW Histogram



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

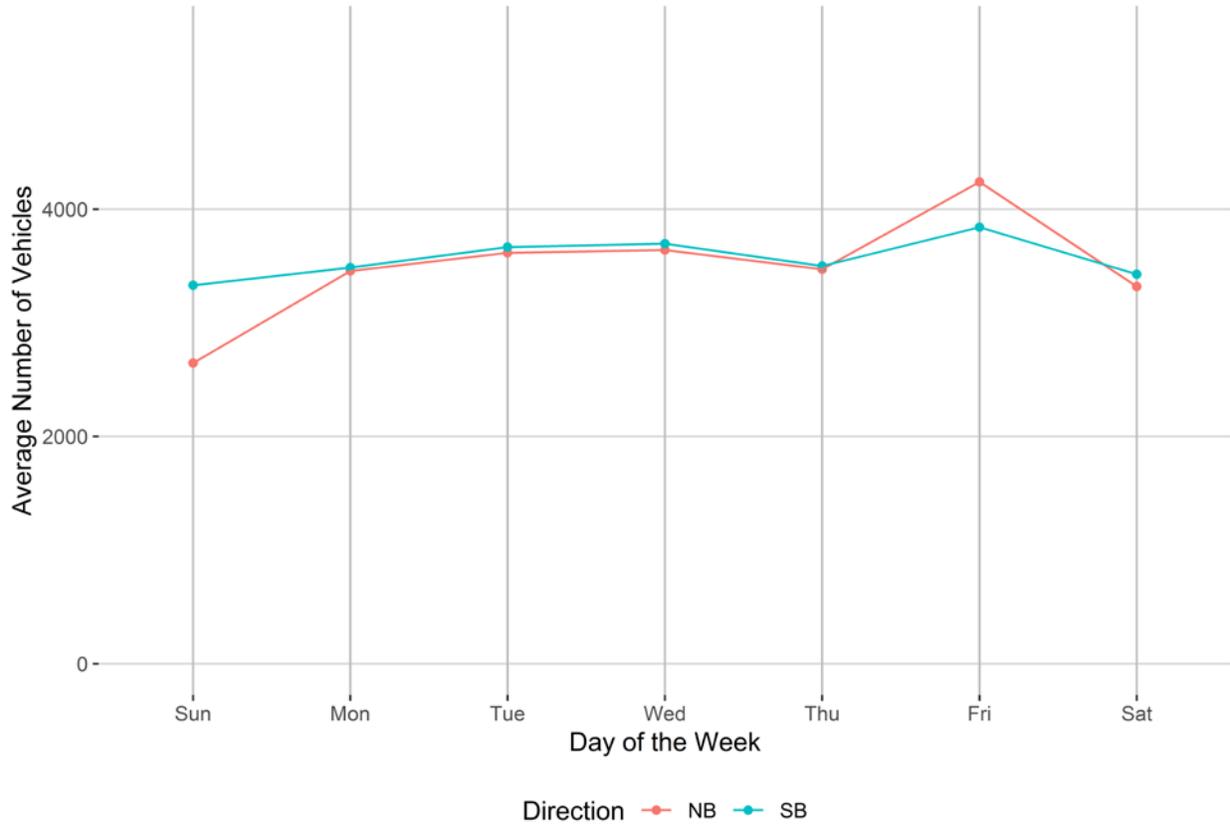


Figure 3 - Average Overweight Vehicle Volume vs. Day of the Week

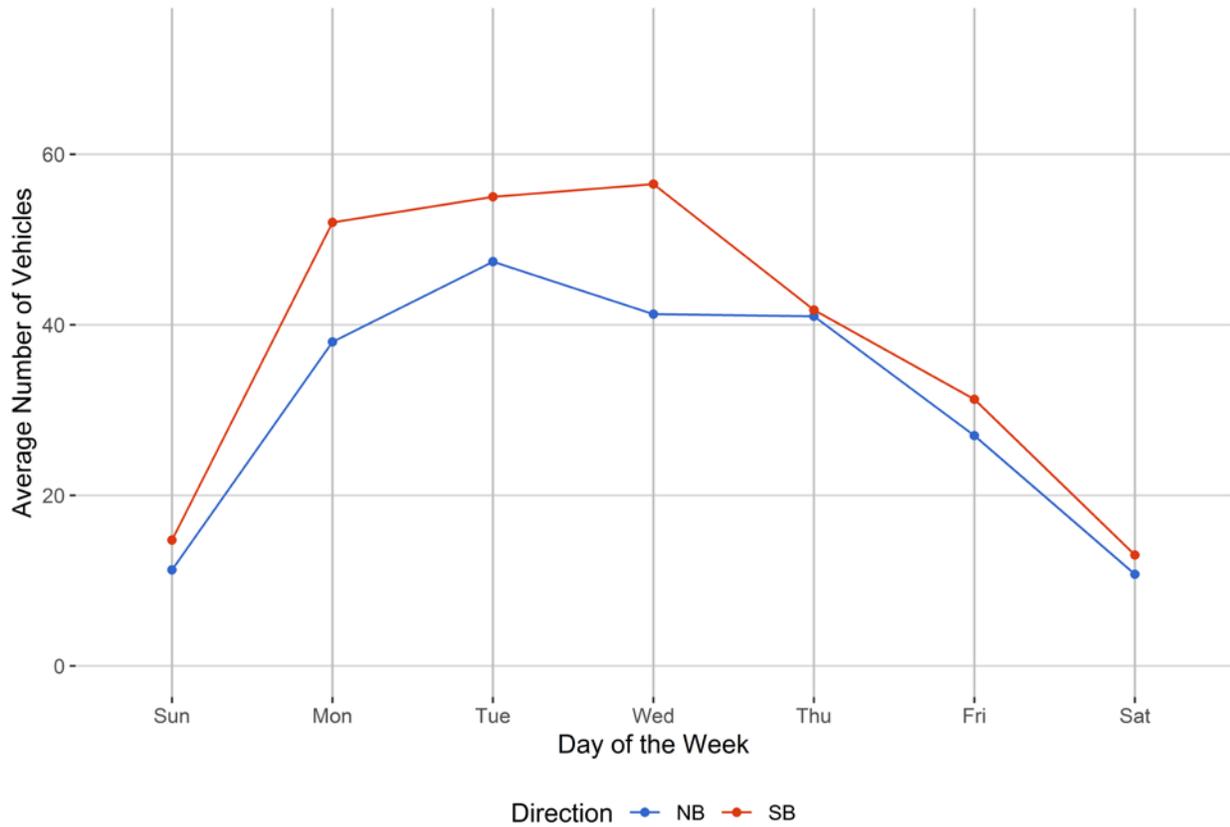


Figure 4 - Passenger Vehicles vs. Hour of the Day

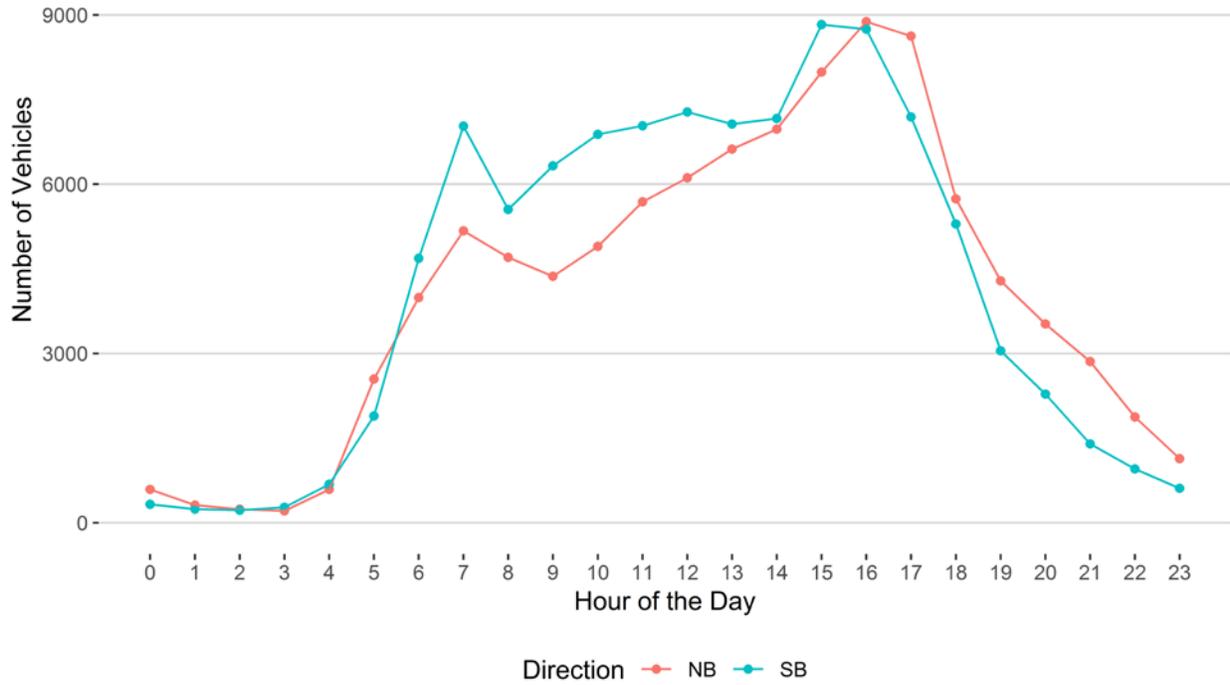


Figure 5 - Heavy Commercial Vehicles vs. Hour of the Day

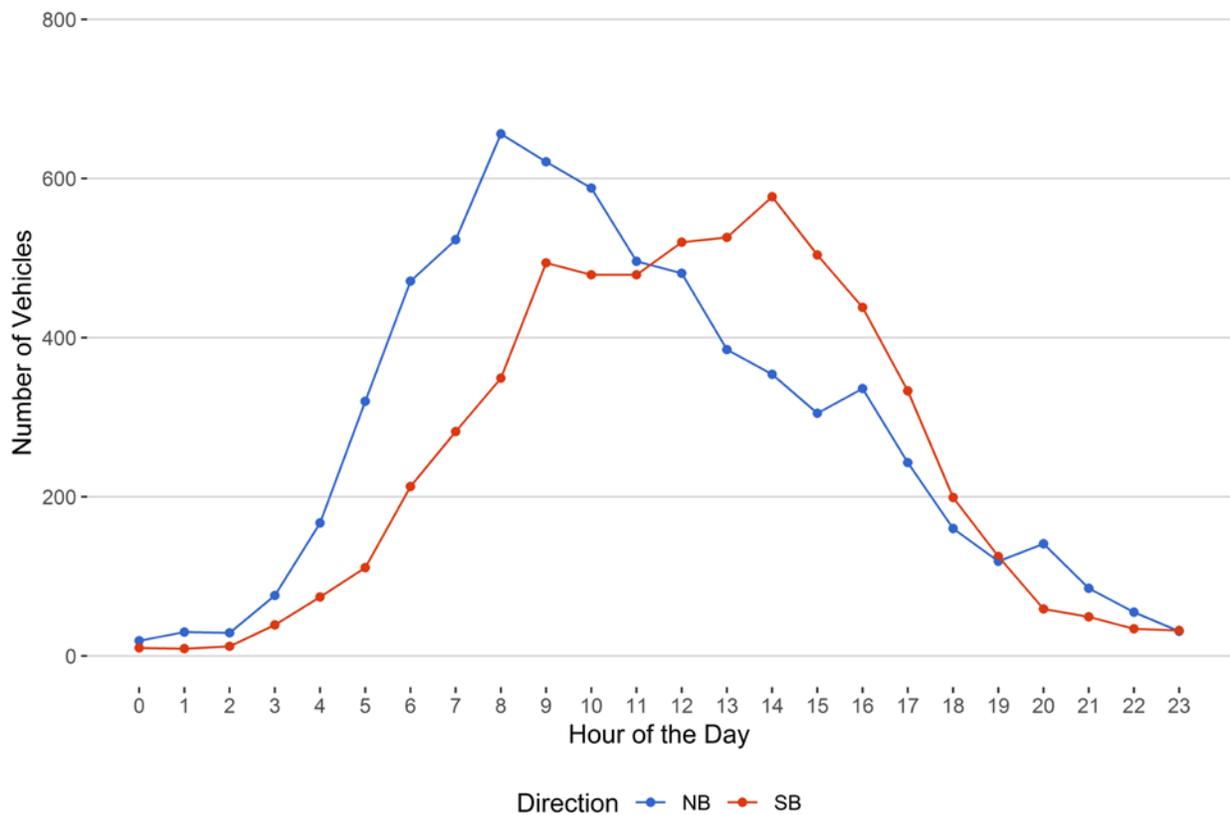


Figure 6 - Overweight Vehicles by Class vs. Hour of the Day

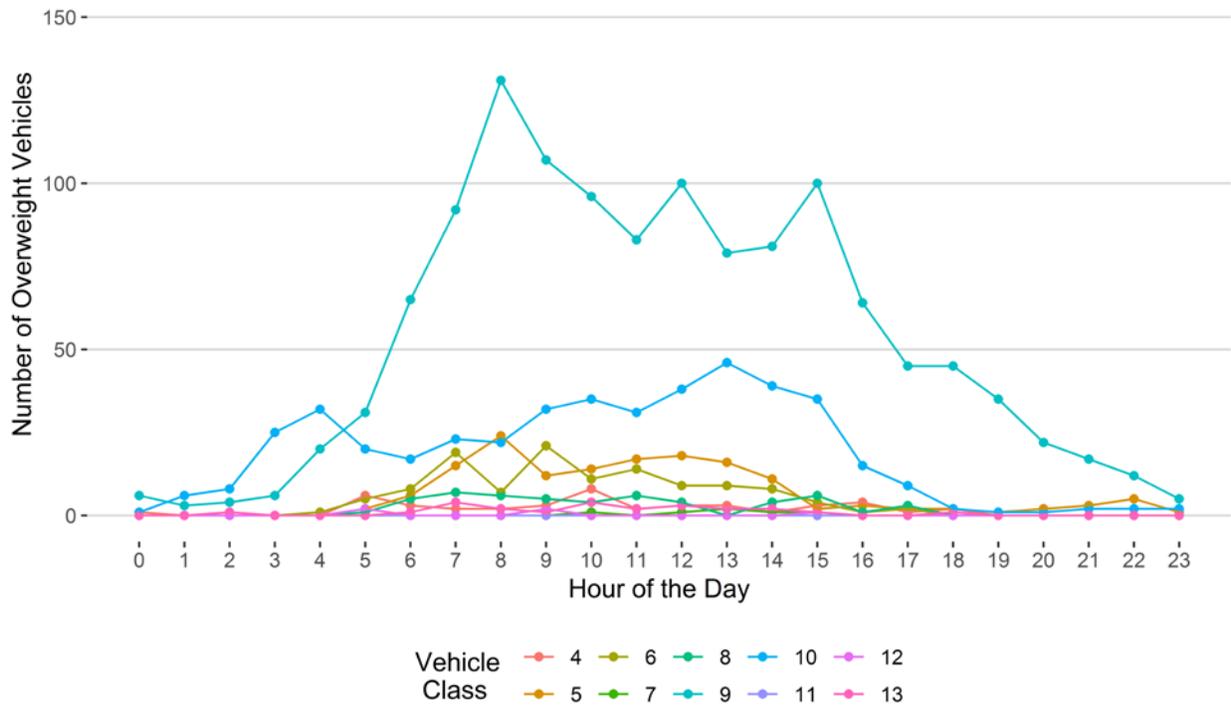


Figure 7 - Overweight Vehicles by Direction  
Hour of the Day

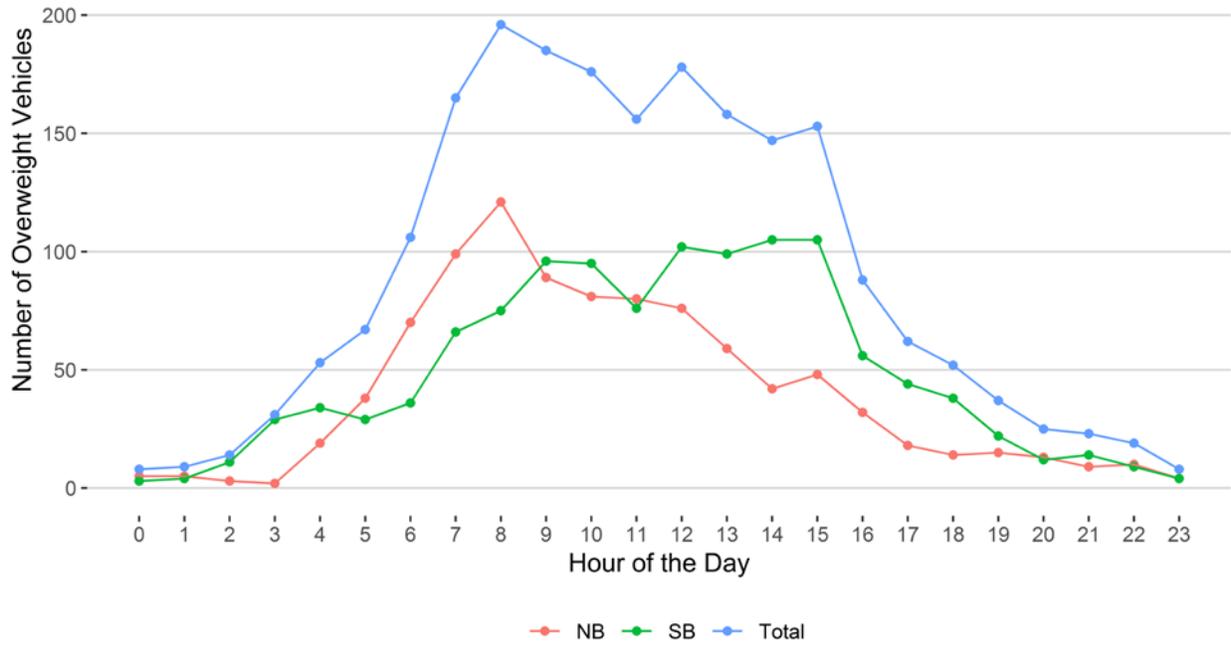
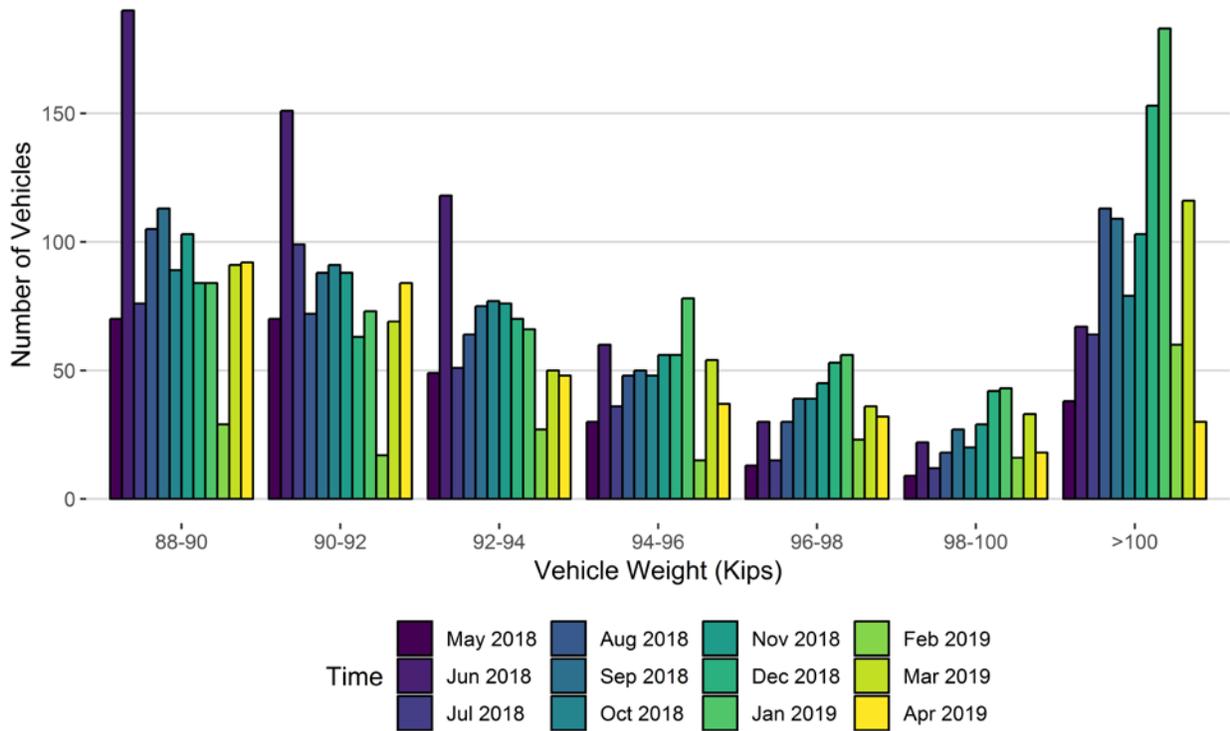
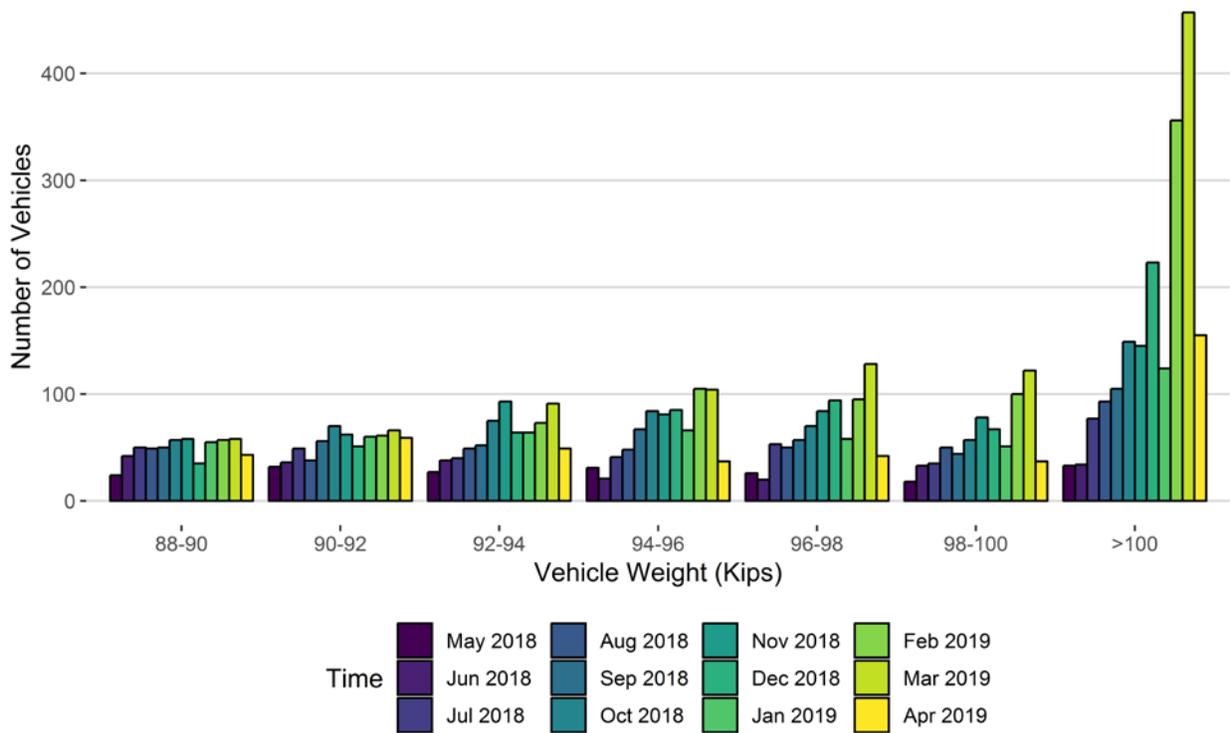


Figure 8 - Histogram of NB Vehicles Over 88,000 Pounds for Current Month



Vehicle Weights (Kips)	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019	Apr 2019
88-90	70	190	76	105	113	89	103	84	84	29	91	92
90-92	70	151	99	72	88	91	88	63	73	17	69	84
92-94	49	118	51	64	75	77	76	70	66	27	50	48
94-96	30	60	36	48	50	48	56	56	78	15	54	37
96-98	13	30	15	30	39	39	45	53	56	23	36	32
98-100	9	22	12	18	27	20	29	42	43	16	33	18
>100	38	67	64	113	109	79	103	153	183	60	116	30
Total	279	638	353	450	501	443	500	521	583	187	449	341

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



Vehicle Weights (Kips)	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019	Apr 2019
88-90	24	42	50	49	50	57	58	35	55	57	58	43
90-92	32	36	49	38	56	70	62	51	60	61	66	59
92-94	27	38	40	49	52	75	93	64	64	73	91	49
94-96	31	21	41	48	67	84	81	85	66	105	104	37
96-98	26	20	53	50	57	70	84	94	58	95	128	42
98-100	18	33	35	50	44	57	78	67	51	100	122	37
>100	33	34	77	93	105	149	145	223	124	356	457	155
Total	191	224	345	377	431	562	601	619	478	847	1026	422

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

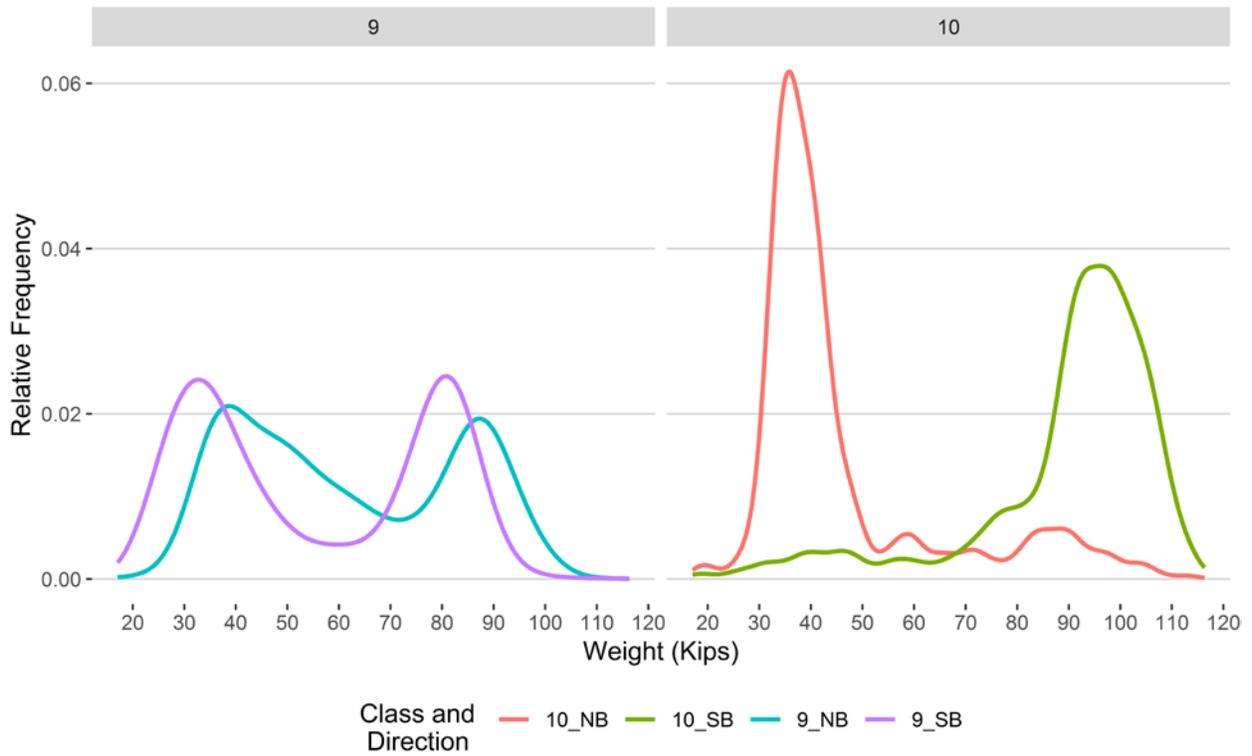


Figure 9 - Freight Percentage by Direction and Class

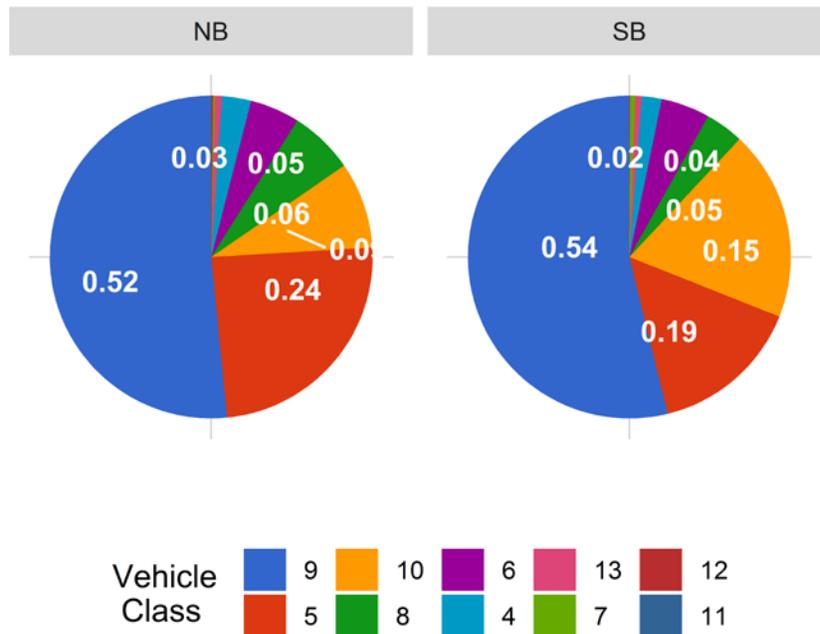


Figure 10 - Total Gross Vehicle Weight Percentage by Class and Lane

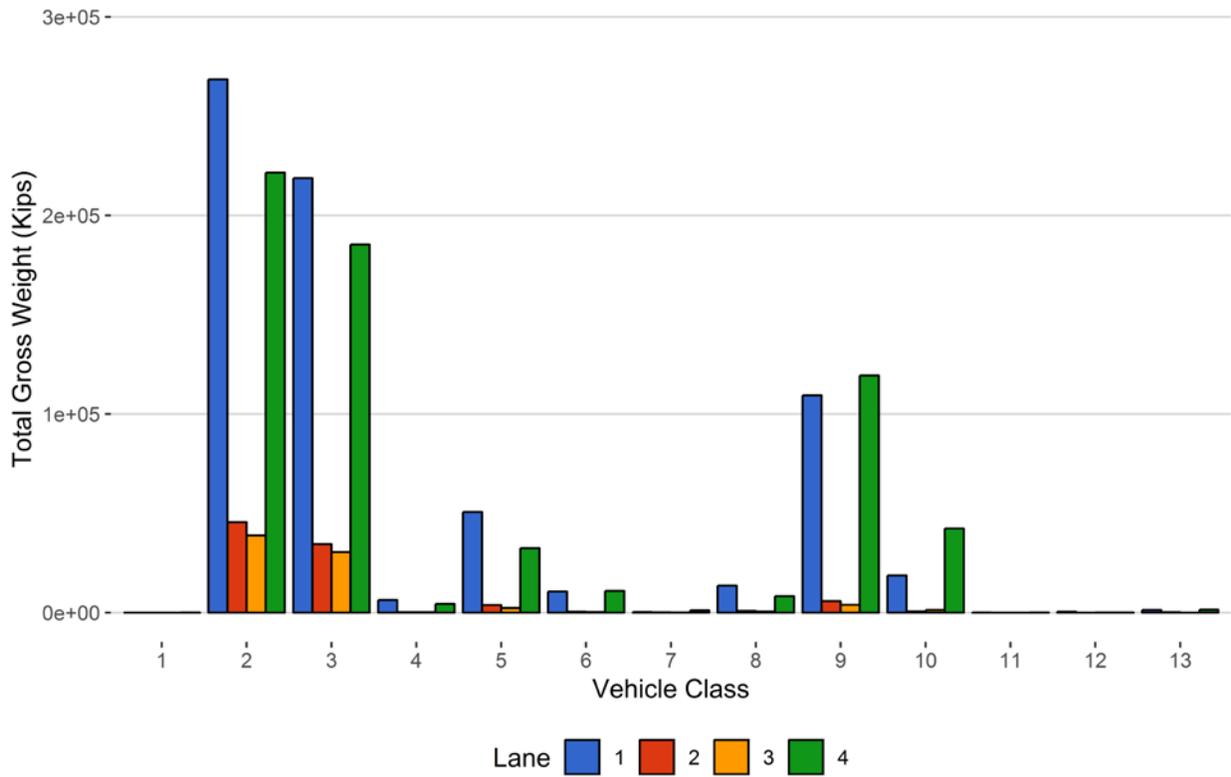


Figure 11 - Total Gross Vehicle Weight t

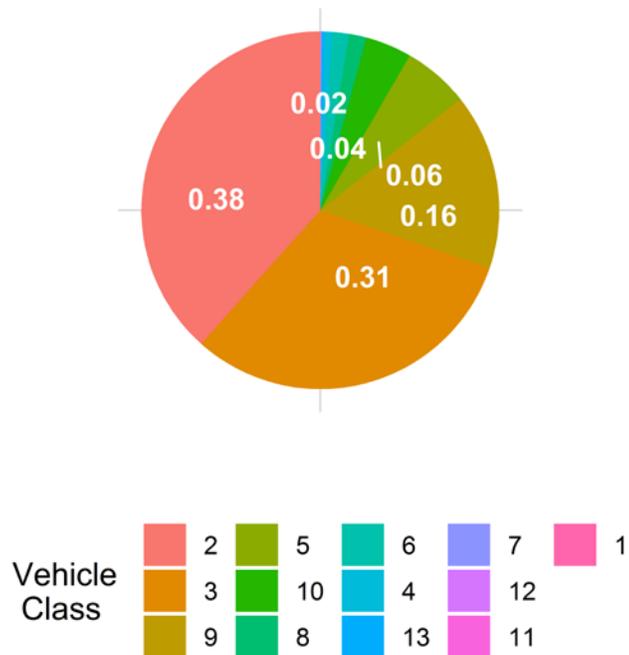


Figure 12 - Total ESALs by Class and Lane

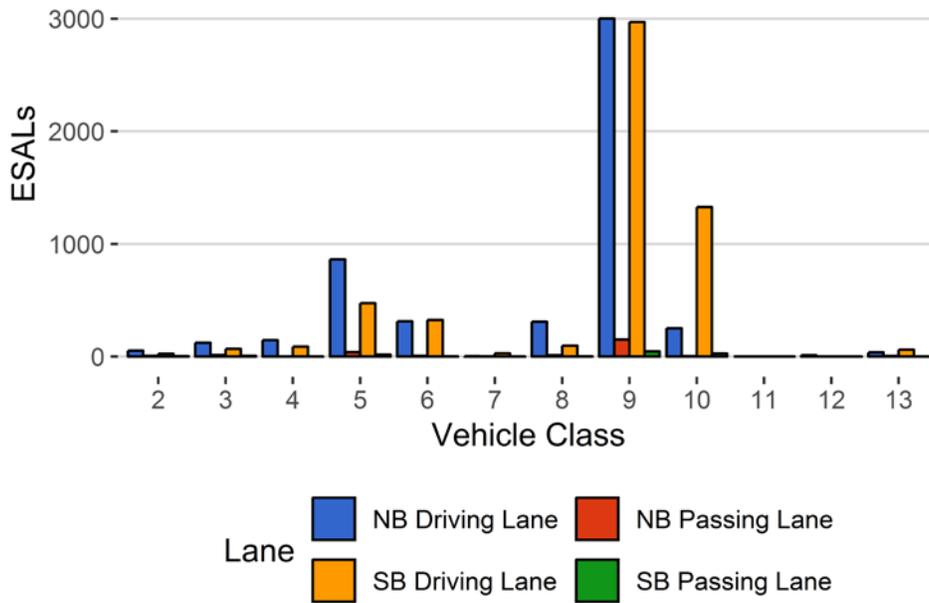
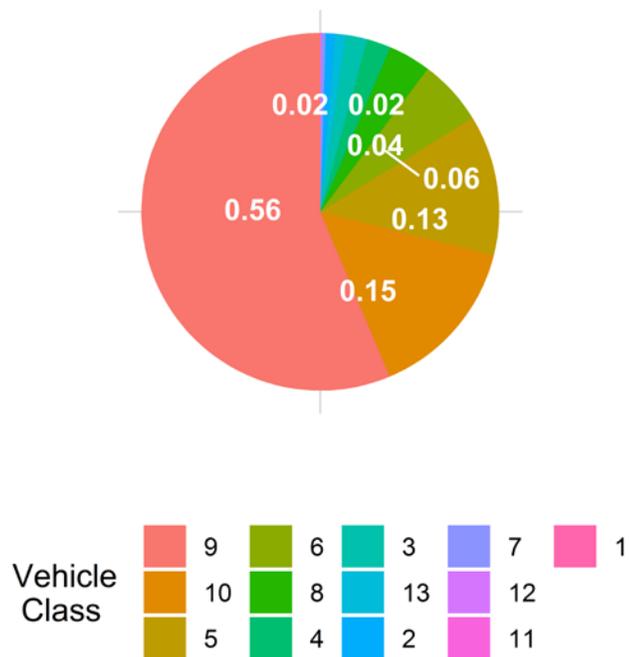


Figure 13 - ESALs by Class



**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	11.62	0.00	12.12	0.00	10.33	0.00	11.31	0.00
March 2017	11.10	-4.45	12.82	5.74	10.14	-1.83	11.11	-1.71
June 2017	11.19	-3.68	14.31	18.03	10.08	-2.40	10.88	-3.75
July 2017	11.23	-3.35	13.99	15.41	9.95	-3.68	10.93	-3.36
August 2017	11.23	-3.36	13.99	15.43	10.09	-2.35	10.89	-3.73
October 2017	12.32	6.06	11.40	-5.91	10.91	5.55	11.21	-0.85
November 2017	12.49	7.54	11.46	-5.46	10.99	6.32	11.28	-0.25
December 2017	12.60	8.45	11.72	-3.32	10.92	5.69	11.14	-1.52
January 2018	12.53	7.84	11.50	-5.10	10.83	4.84	11.45	1.24
February 2018	12.47	7.38	11.59	-4.37	10.92	5.64	11.87	4.95
March 2018	12.41	6.87	11.61	-4.25	11.28	9.19	12.01	6.26
April 2018	12.34	6.25	11.49	-5.19	11.21	8.47	11.90	5.24
May 2018	12.25	5.47	11.30	-6.81	10.64	3.00	11.12	-1.61
June 2018	12.25	5.47	11.42	-5.75	10.67	3.24	11.08	-1.97
July 2018	12.31	5.98	11.54	-4.83	10.78	4.29	11.09	-1.94
August 2018	12.39	6.70	11.65	-3.85	10.72	3.72	11.09	-1.88
September 2018	12.43	6.97	11.60	-4.27	10.83	4.82	11.03	-2.48
October 2018	12.61	8.58	11.67	-3.76	10.81	4.59	11.25	-0.51
November 2018	12.73	9.56	11.59	-4.38	11.04	6.84	11.17	-1.18
December 2018	12.77	9.97	11.49	-5.17	11.06	7.06	11.19	-1.00
January 2019	12.83	10.40	11.94	-1.52	11.04	6.85	11.16	-1.34
February 2019	13.35	14.96	11.62	-4.10	9.99	-3.32	11.54	2.04
March 2019	13.12	12.94	11.81	-2.59	9.92	-4.00	11.82	4.50
April 2019	13.11	12.87	11.99	-1.04	10.01	-3.11	12.13	7.29

**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	1	15	0	0	0
2	4368	131037	61.4	0	0
3	2317	69497	32.6	0	0
4	13	390	0.2	44	2.1
5	198	5934	2.8	156	7.4
6	20	594	0.3	119	5.7
7	1	34	0	6	0.3
8	24	731	0.3	52	2.5
9	137	4106	1.9	1249	59.5
10	30	911	0.4	444	21.2
11	0	2	0	0	0
12	0	8	0	5	0.2
13	1	25	0	24	1.1
<b>TOTAL</b>	<b>7109</b>	<b>213284</b>	<b>100</b>	<b>2099</b>	<b>100</b>

**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>
2019-04-30	Tuesday	12:56:29	9	SB	4	116.33
2019-04-27	Saturday	06:52:02	10	SB	4	114.76
2019-04-01	Monday	10:16:01	10	SB	4	114.25
2019-04-18	Thursday	06:14:44	10	SB	4	113.15
2019-04-12	Friday	16:46:17	10	NB	1	113.02
2019-04-17	Wednesday	03:17:39	10	SB	4	112.76
2019-04-01	Monday	05:13:13	9	NB	1	112.73
2019-04-17	Wednesday	04:56:31	10	SB	4	112.57
2019-04-20	Saturday	10:19:04	10	SB	4	112.57
2019-04-10	Wednesday	03:12:59	10	SB	4	112.31

**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	226	17	7.5	6313	230	1589
5	NB	8	3468	44	1.3	54118	323	13363
6	NB	19	281	0	0	11090	0	2875
7	NB	11.5	11	0	0	436	0	155
8	NB	31	406	129	31.8	11809	2623	1611
9	NB	33	1861	66	3.5	113213	1971	26989
10	NB	33.5	417	54	12.9	17644	1656	2742
11	NB	36.5	1	1	100	0	30	0
12	NB	36.5	6	1	16.7	388	18	103
13	NB	31.5	14	0	0	1492	0	525
<b>TOTAL</b>	<b>****</b>	<b>****</b>	<b>6691</b>	<b>312</b>	<b>****</b>	<b>216502</b>	<b>****</b>	<b>49952</b>
<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	161	38	23.6	4098	488	1127
5	SB	8	2421	364	15	32107	2598	7826
6	SB	19	308	21	6.8	10822	353	2685
7	SB	11.5	23	0	0	1190	0	463
8	SB	31	319	192	60.2	4626	4179	345
9	SB	33	2214	507	22.9	108948	14356	26308
10	SB	33.5	487	10	2.1	43382	271	13701
11	SB	36.5	1	1	100	0	19	0
12	SB	36.5	2	0	0	144	0	35
13	SB	31.5	11	0	0	1466	0	560
<b>TOTAL</b>	<b>****</b>	<b>****</b>	<b>5947</b>	<b>1133</b>	<b>****</b>	<b>206783</b>	<b>****</b>	<b>53049</b>
<b>GRAND TOTAL</b>	<b>****</b>	<b>****</b>	<b>12638</b>	<b>1445</b>	<b>404</b>	<b>423285</b>	<b>29115</b>	<b>103001</b>

**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	5	0	0	15	20	0
2	268529	45499	38872	221520	574419	38.4
3	218792	34452	30500	185277	469021	31.4
4	6337	206	206	4380	11129	0.7
5	50620	3822	2301	32404	89147	6
6	10633	457	287	10888	22265	1.5
7	316	121	55	1135	1626	0.1
8	13596	835	510	8295	23237	1.6
9	109402	5781	3904	119400	238487	15.9
10	18672	628	1336	42317	62953	4.2
11	30	0	0	19	49	0
12	406	0	81	62	550	0
13	1263	229	0	1466	2958	0.2
<b>TOTAL</b>	<b>698600</b>	<b>92029</b>	<b>78053</b>	<b>627179</b>	<b>1495860</b>	<b>100</b>
<b>GVW/LANE</b>	<b>46.7</b>	<b>6.15</b>	<b>5.22</b>	<b>41.93</b>	<b>100</b>	<b>0.01</b>

**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	0.0625
2	53	7	4	27	90	0.83	0.0014
3	124	14	8	69	215	1.96	0.0063
4	148	1	1	89	238	2.17	1.23
5	863	40	17	475	1395	12.74	0.48
6	314	8	3	324	649	5.93	2.2
7	4	3	1	30	39	0.36	2.09
8	309	13	2	97	422	3.85	1.17
9	3001	153	47	2970	6171	56.35	3.04
10	252	5	29	1328	1614	14.73	3.56
11	0	0	0	0	0	0	0.86
12	13	0	2	1	15	0.13	2.08
13	38	6	0	61	105	0.95	5.87
<b>TOTAL</b>	<b>5119</b>	<b>248</b>	<b>114</b>	<b>5471</b>	<b>10952</b>	<b>100</b>	<b>23</b>
<b>ESALS/LANE</b>	<b>46.7</b>	<b>2.3</b>	<b>1</b>	<b>50</b>	<b>100</b>	<b>-</b>	<b>-</b>

**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>
May 2018	275473	8886	486	260406	94.5	15066.6	5.5	91.8	8.2
Jun 2018	306452	10215	626	287683	93.9	18769.5	6.1	90.8	9.2
Jul 2018	350547	11308	574	332764	94.9	17782.9	5.1	90.2	9.8
Aug 2018	358059	11550	592	339709	94.9	18350	5.1	90.6	9.4
Sep 2018	313915	10464	604	295806	94.2	18109.5	5.8	90.9	9.1
Oct 2018	288734	9314	557	271460	94	17274.5	6	91.5	8.5
Nov 2018	213943	7131	471	199800	93.4	14142.7	6.6	92.7	7.3
Dec 2018	202323	6977	389	190274	94	12049.2	6	93.6	6.4
Jan 2019	203082	6551	412	190300	93.7	12782.5	6.3	96.2	3.8
Feb 2019	184458	6588	402	173210	93.9	11247.6	6.1	91	9
Mar 2019	222183	7167	470	207616	93.4	14566.8	6.6	92.9	7.1
Apr 2019	213284	7109	424	200549	94	12734.7	6	93.5	6.5
<b>TOTAL</b>	<b>3132453</b>	<b>-</b>	<b>-</b>	<b>2949577</b>	<b>-</b>	<b>182876</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>AVERAGE</b>	<b>261038</b>	<b>8605</b>	<b>501</b>	<b>245798</b>	<b>94</b>	<b>15240</b>	<b>6</b>	<b>92</b>	<b>8</b>

## 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>
May 2018	5870	397	196	4186	10649	94	6	19.6
Jun 2018	8117	587	372	5176	14252	93	7	29.4
Jul 2018	6965	535	336	5229	13065	93	7	23.1
Aug 2018	7274	628	412	5605	13919	93	7	29.6
Sep 2018	7125	574	424	5493	13615	93	7	31.5
Oct 2018	7067	554	340	6223	14184	94	6	31.9
Nov 2018	6376	331	315	5768	12790	95	5	48.1
Dec 2018	5978	281	7355	5121	18736	59	41	85.7
Jan 2019	6348	398	15	5011	11772	96	4	64.8
Feb 2019	2855	313	24397	6316	33880	27	73	7.8
Mar 2019	6210	276	7776	7820	22080	64	36	95.1
Apr 2019	5158	248	118	5495	11019	97	3	46.4
<b>TOTAL</b>	<b>75342</b>	<b>5121</b>	<b>42056</b>	<b>67443</b>	<b>189963</b>	-	-	-
<b>AVERAGE</b>	<b>6278</b>	<b>427</b>	<b>3505</b>	<b>5620</b>	<b>15830</b>	<b>83</b>	<b>17</b>	<b>43</b>

## 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>
May 18	805267	135068	123381	716964	1780680
Jun 18	956809	179159	163542	840328	2139837
Jul 18	989942	190861	199906	891495	2272204
Aug 18	1029912	206482	199903	915971	2352268
Sep 18	928245	167946	179934	843547	2119672
Oct 18	874341	151885	156271	815285	1997782
Nov 18	703774	103950	86051	644760	1538536
Dec 18	685139	100086	67487	606959	1459670
Jan 19	682176	85152	31467	619015	1417811
Feb 19	523242	76780	67109	602583	1269714
Mar 19	756964	97404	91231	710157	1655755
Apr 19	699507	92039	78224	627597	1497367
<b>TOTAL</b>	<b>9635320</b>	<b>1586812</b>	<b>1444505</b>	<b>8834661</b>	<b>21501298</b>
<b>AVERAGE</b>	<b>802943</b>	<b>132234</b>	<b>120375</b>	<b>736222</b>	<b>1791775</b>

## 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>
May 2018	1827	0.7	12.2	470	98
Jun 2018	2892	1	15.4	866	157
Jul 2018	2415	0.7	13.6	700	189
Aug 2018	2476	0.7	13.5	830	275
Sep 2018	2546	0.8	14.1	934	286
Oct 2018	2727	0.9	15.8	1007	305
Nov 2018	2379	1.1	16.9	1102	355
Dec 2018	2093	1	16.5	1147	489
Jan 2019	2132	1.1	16	1062	401
Feb 2019	1870	1.1	16.9	1060	553
Mar 2019	2748	1.3	18.9	1486	736
Apr 2019	2116	1	16.7	764	241
<b>TOTAL</b>	<b>28221</b>	<b>-</b>	<b>-</b>	<b>11428</b>	<b>4085</b>
<b>AVERAGE</b>	<b>2351.8</b>	<b>1</b>	<b>15.5</b>	<b>952.3</b>	<b>340.4</b>

## 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>
May 2018	61664	47687	109351	56.4	43.6
Jun 2018	88451	64157	152607	58	42
Jul 2018	72207	58420	130627	55.3	44.7
Aug 2018	73261	62083	135345	54.1	45.9
Sep 2018	75479	60417	135896	55.5	44.5
Oct 2018	71194	66929	138122	51.5	48.5
Nov 2018	59228	61355	120584	49.1	50.9
Dec 2018	53907	52938	106845	50.5	49.5
Jan 2019	57703	52459	110162	52.4	47.6
Feb 2019	29089	60935	90023	32.3	67.7
Mar 2019	57188	75044	132232	43.2	56.8
Apr 2019	49952	53049	103001	48.5	51.5
<b>TOTAL</b>	<b>749324</b>	<b>715471</b>	<b>1464795</b>	-	-
<b>AVERAGE</b>	<b>62443.6</b>	<b>59622.6</b>	<b>122066.3</b>	<b>50.6</b>	<b>49.4</b>