

DECEMBER 2019



09/14/2010

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

**MONTHLY  
REPORT**



09/14/2010

*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 December 2019. Volume was computed using all monthly data.

## System Calibration

WIM #30 was most recently calibrated on 2017-10-18. 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: 206508 | Passenger Vehicles: 192675 | Heavy Commercial Vehicles: 13833

Monthly Average Daily Traffic (MADT): 6810 | Monthly Heavy Commercial Average Daily Traffic (MHCADT): 446

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 03 PM and 05 PM. Similarly, SB PVs peaked in volume between 11 AM 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 11 AM 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 13833 HCVs, 2350 of them were overweight <sup>3</sup>. These overweight HCVs contributed to 1.2% of total monthly volume, and 17.3% 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 Thursdays, with lowest volumes reported on Sundays. See Figure 3 .

The top two overweight violators by class were the class 9 and class 10 vehicles . Overall, overweight vehicles tended to reach peak volume concentrations during typical business hours, with 53% 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 October.

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 ,651 NB vehicles exceeded 88,000 pounds (532 vehicles were Class 9's; 99 vehicles were Class 10's). Of vehicles traveling SB,

359 NB vehicles exceeded 88,000 pounds (286 vehicles were Class 10's; 40 vehicles were Class 9's). Refer to Table 3 for the Top 10 highest recorded GVWs from Classes 9 and 10 from December 2019.

**Loaded vs. Unloaded HCVs.** Figure 10 shows the GVW distributions of Class 9s and 10s in December 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 112924 tons of freight was recorded to have crossed the WIM. More freight was shipped NB (54.4%) than SB (45.6%). 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 206508 vehicles with a combined GVW of 1520255 kips (1 kip = 1,000 pounds = 0.5 tons) in December 2019. See Table 5 and Figures 12-13 for GVW information by vehicle class and lane.

**Pavement Design.** A total of 25933 equivalent single axle loads (ESALs) passed over the pavement at this site. Approximately 71.3% of all ESALs were recorded SB while 28.7% was observed NB. In particular, 50% of all ESALs were generated by the Class 14's (Class 14's were also responsible for generating % 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:

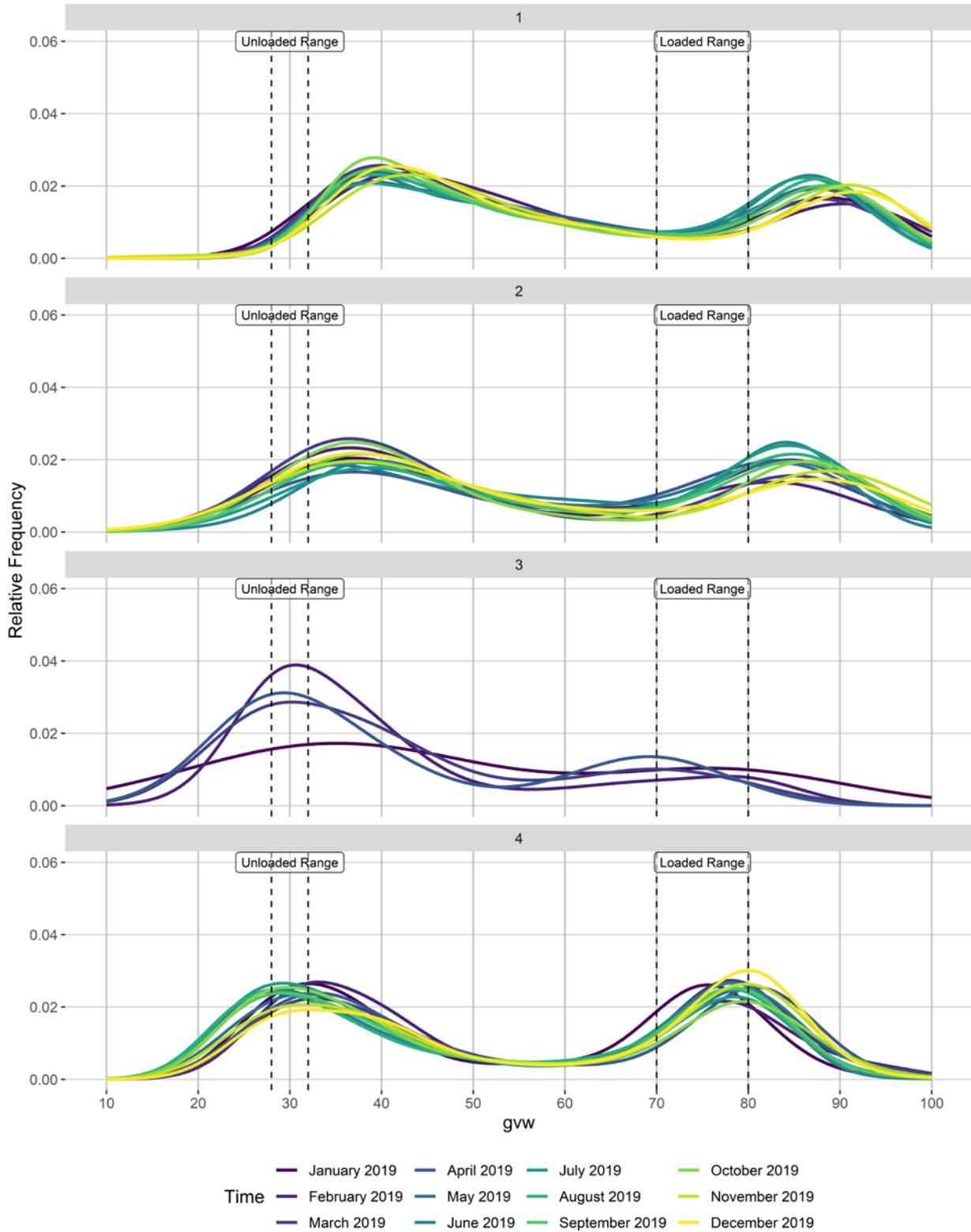
<http://www.dot.state.mn.us/traffic/data/reports-monthly-wim.html> MnDOT's vehicle

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.

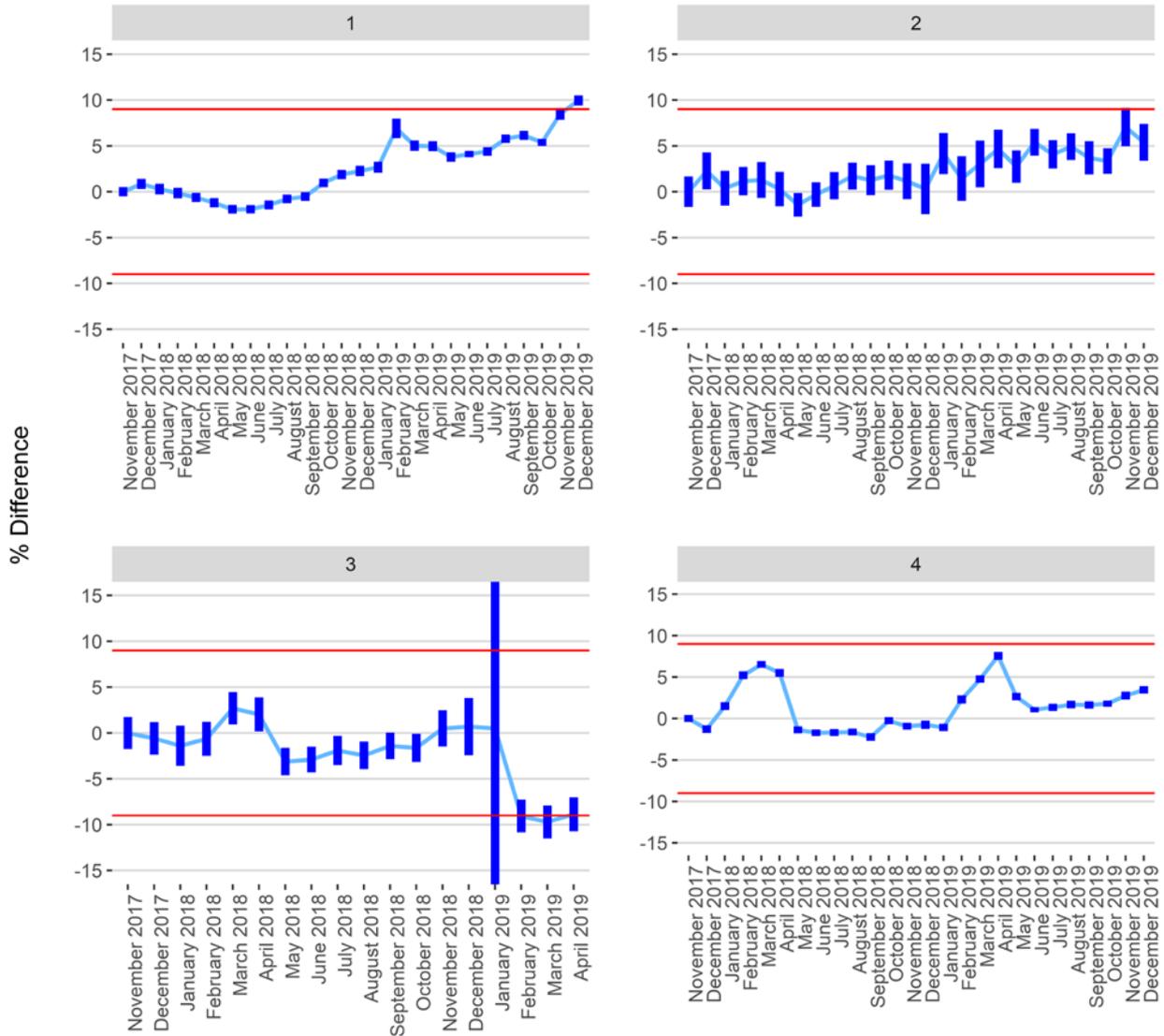
**To request this document in an alternative format, please call 651-366-4718 or 1-800-657-3774, or email your request to [ADArequest.dot@state.mn.us](mailto:ADArequest.dot@state.mn.us). Please request at least one week in advance.**

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

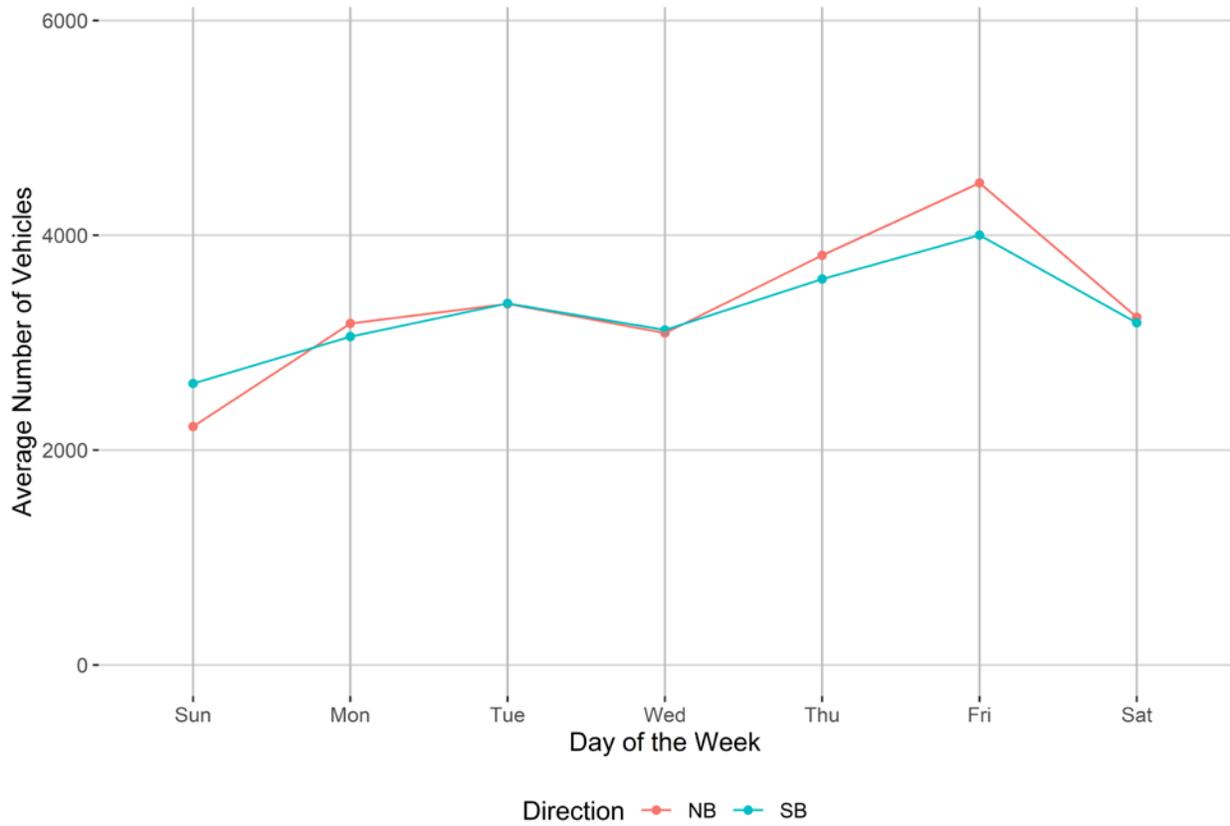


Figure 3 - Average Overweight Vehicle Volume vs. Day of the Week

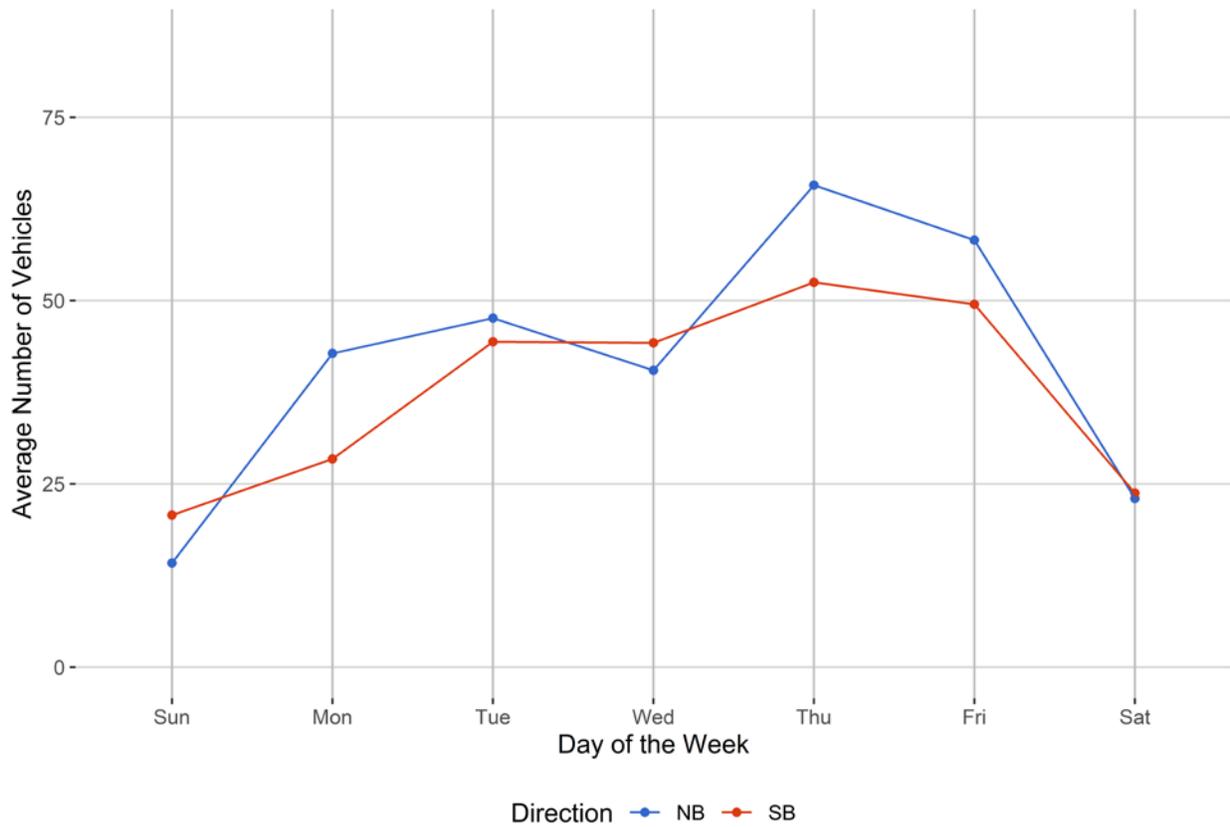


Figure 4 - Passenger Vehicles vs. Hour of the Day

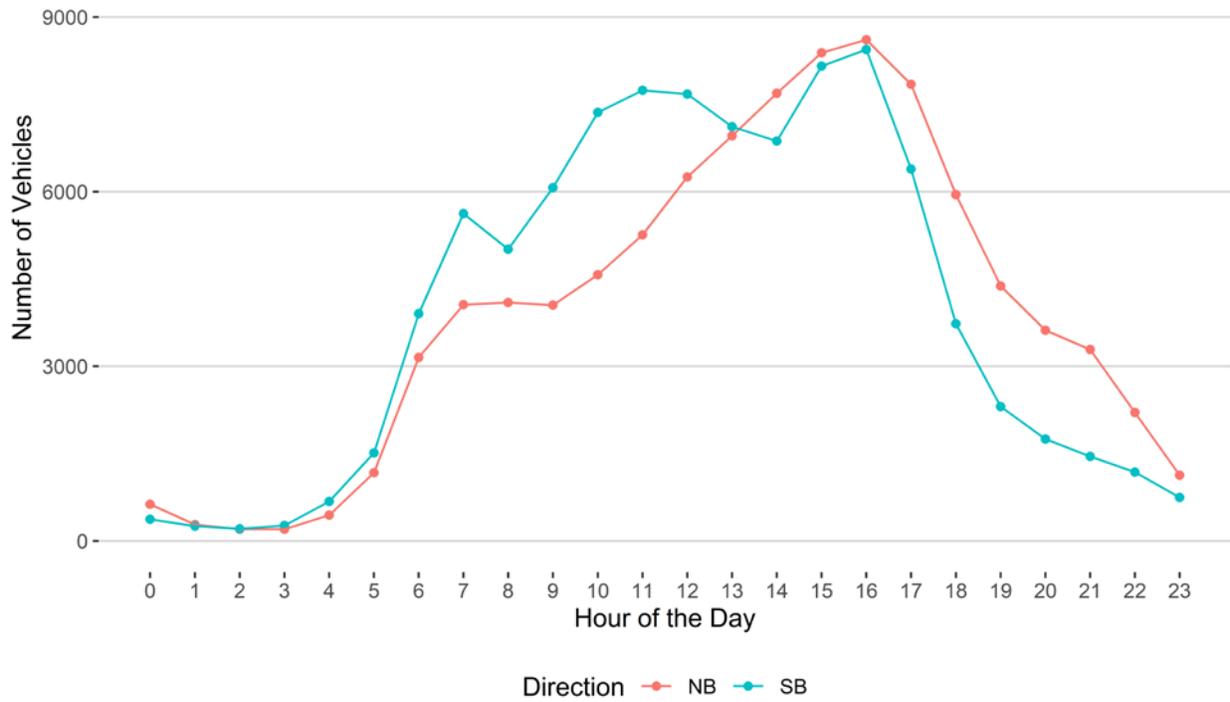


Figure 5 - Heavy Commercial Vehicles vs. Hour of the Day

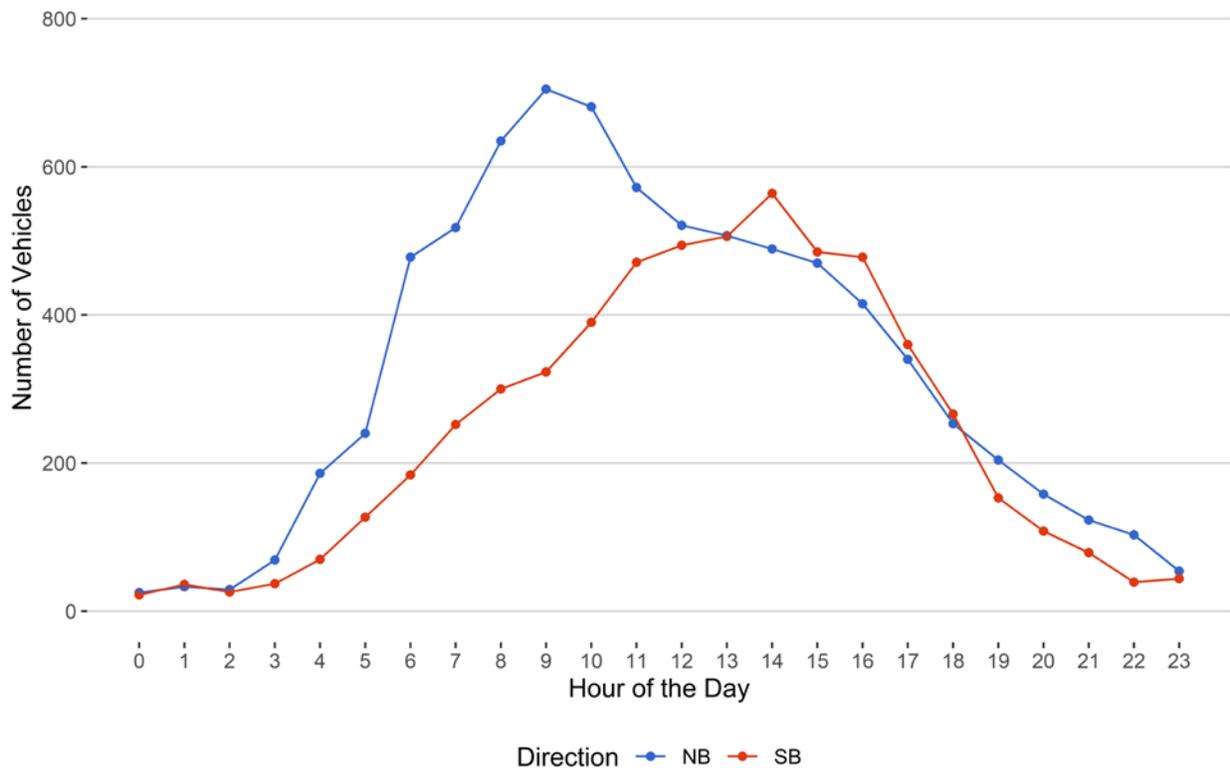


Figure 6 - Overweight Vehicles by Class vs. Hour of the Day

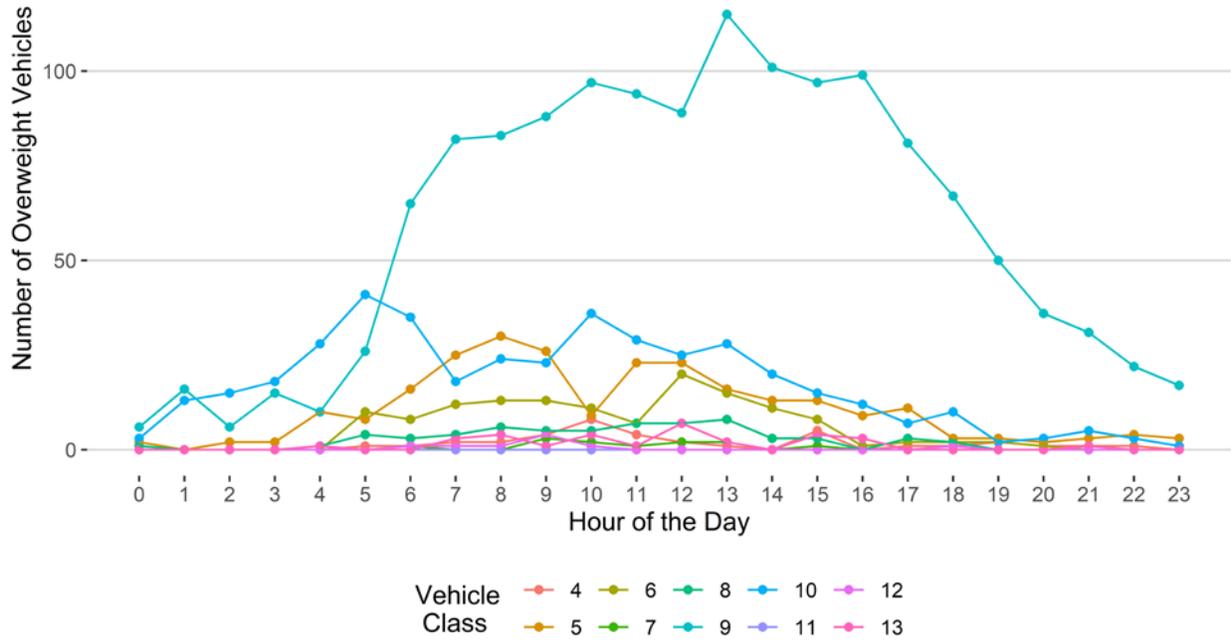


Figure 7 - Overweight Vehicles by Direction  
Hour of the Day

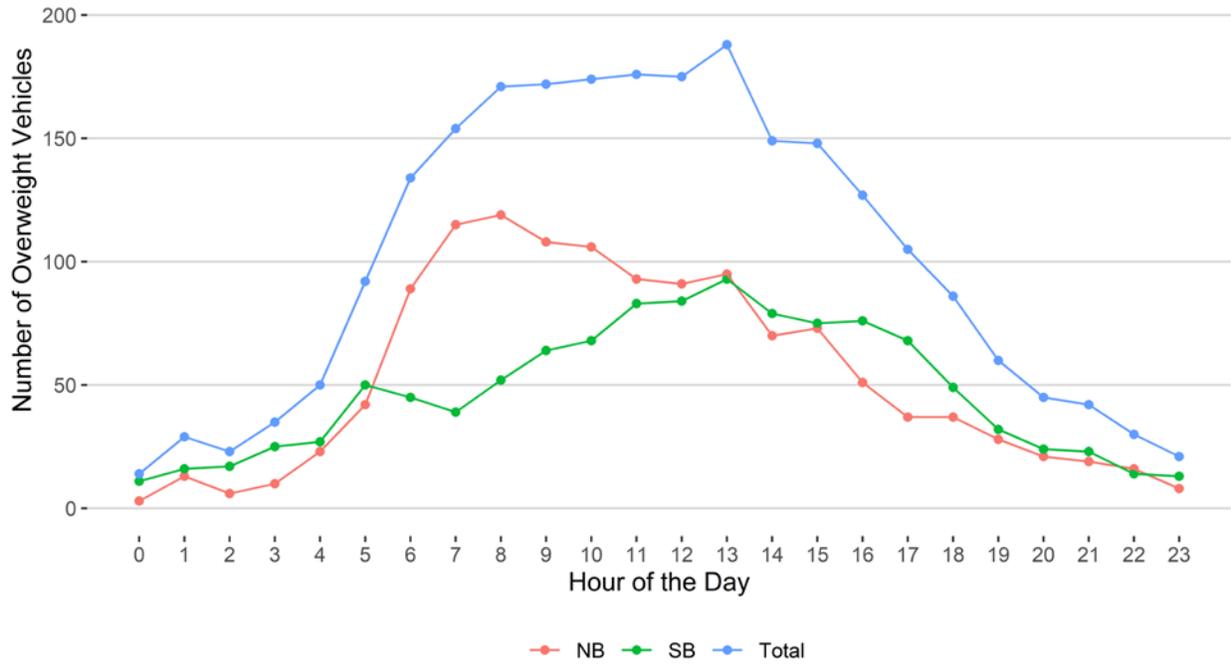
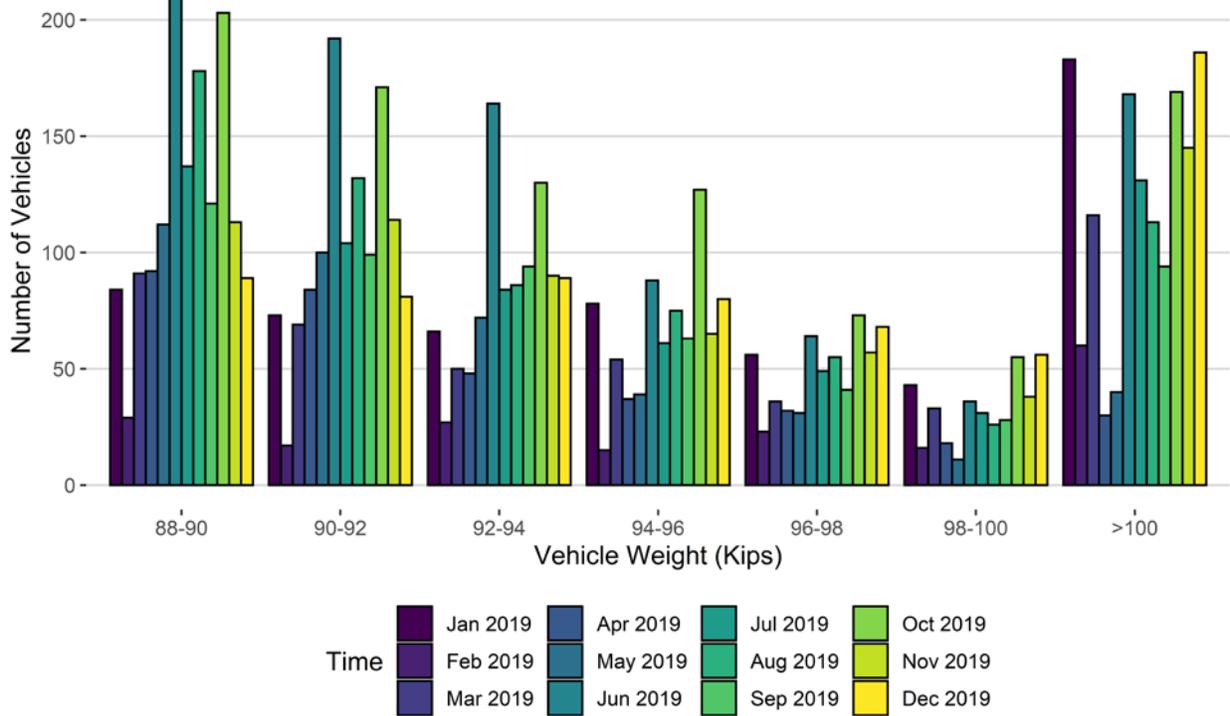
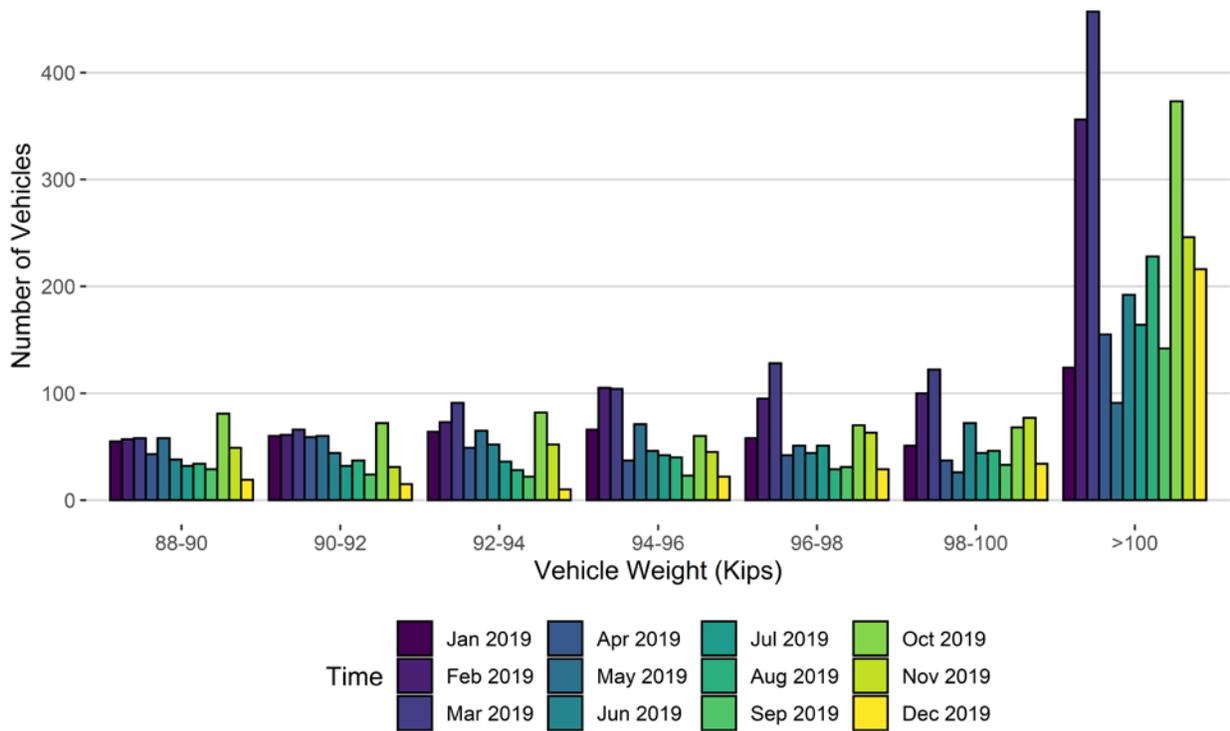


Figure 8 - Histogram of NB Vehicles Over 88,000 Pounds for Current Month



Vehicle Weights (Kips)	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
88-90	84	29	91	92	112	210	137	178	121	203	113	89
90-92	73	17	69	84	100	192	104	132	99	171	114	81
92-94	66	27	50	48	72	164	84	86	94	130	90	89
94-96	78	15	54	37	39	88	61	75	63	127	65	80
96-98	56	23	36	32	31	64	49	55	41	73	57	68
98-100	43	16	33	18	11	36	31	26	28	55	38	56
>100	183	60	116	30	40	168	131	113	94	169	145	186
<b>Total</b>	<b>583</b>	<b>187</b>	<b>449</b>	<b>341</b>	<b>405</b>	<b>922</b>	<b>597</b>	<b>665</b>	<b>540</b>	<b>928</b>	<b>622</b>	<b>649</b>

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



Vehicle Weights (Kips)	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
88-90	55	57	58	43	58	38	32	34	29	81	49	19
90-92	60	61	66	59	60	44	32	37	24	72	31	15
92-94	64	73	91	49	65	52	36	28	22	82	52	10
94-96	66	105	104	37	71	46	42	40	23	60	45	22
96-98	58	95	128	42	51	44	51	29	31	70	63	29
98-100	51	100	122	37	26	72	44	46	33	68	77	34
>100	124	356	457	155	91	192	164	228	142	373	246	216
Total	478	847	1026	422	422	488	401	442	304	806	563	345

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

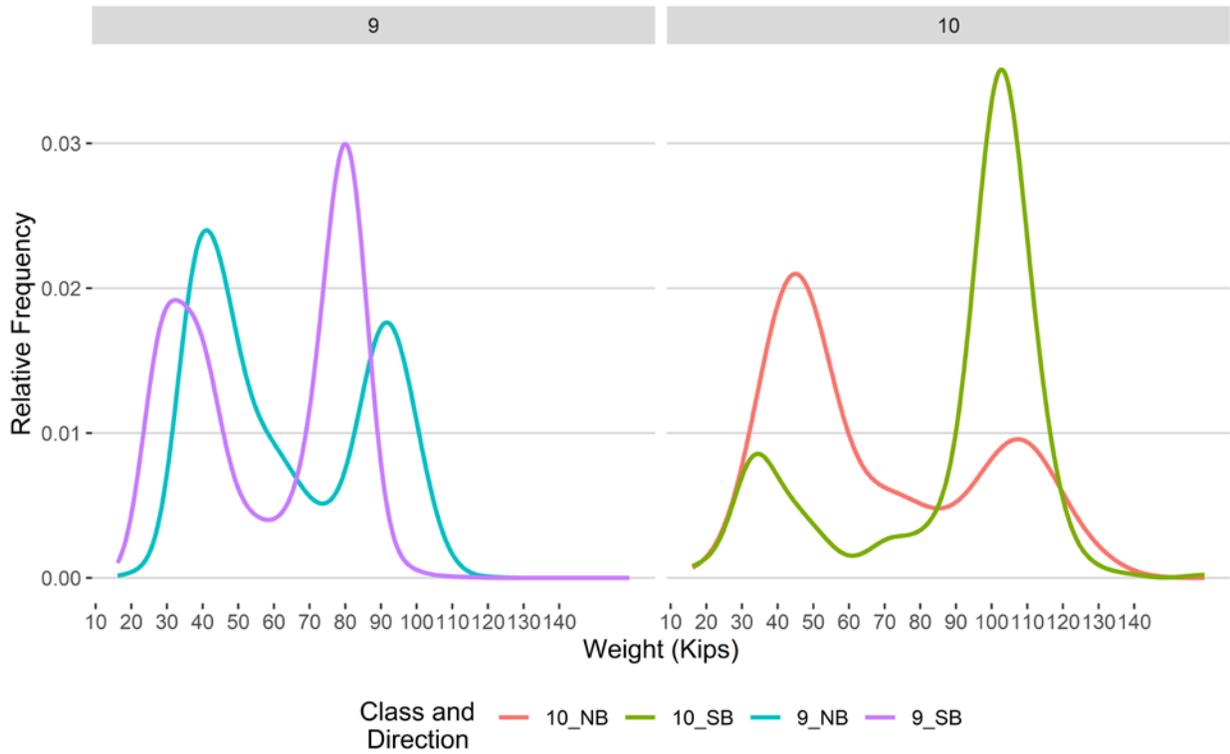


Figure 9 - Freight Percentage by Direction and Class

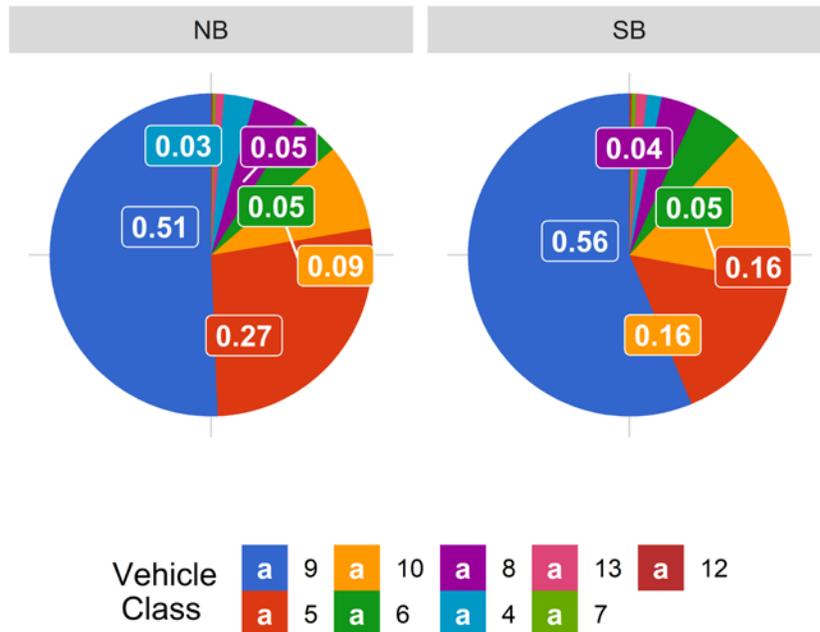


Figure 10 - Total Gross Vehicle Weight Percentage by Class and Lane

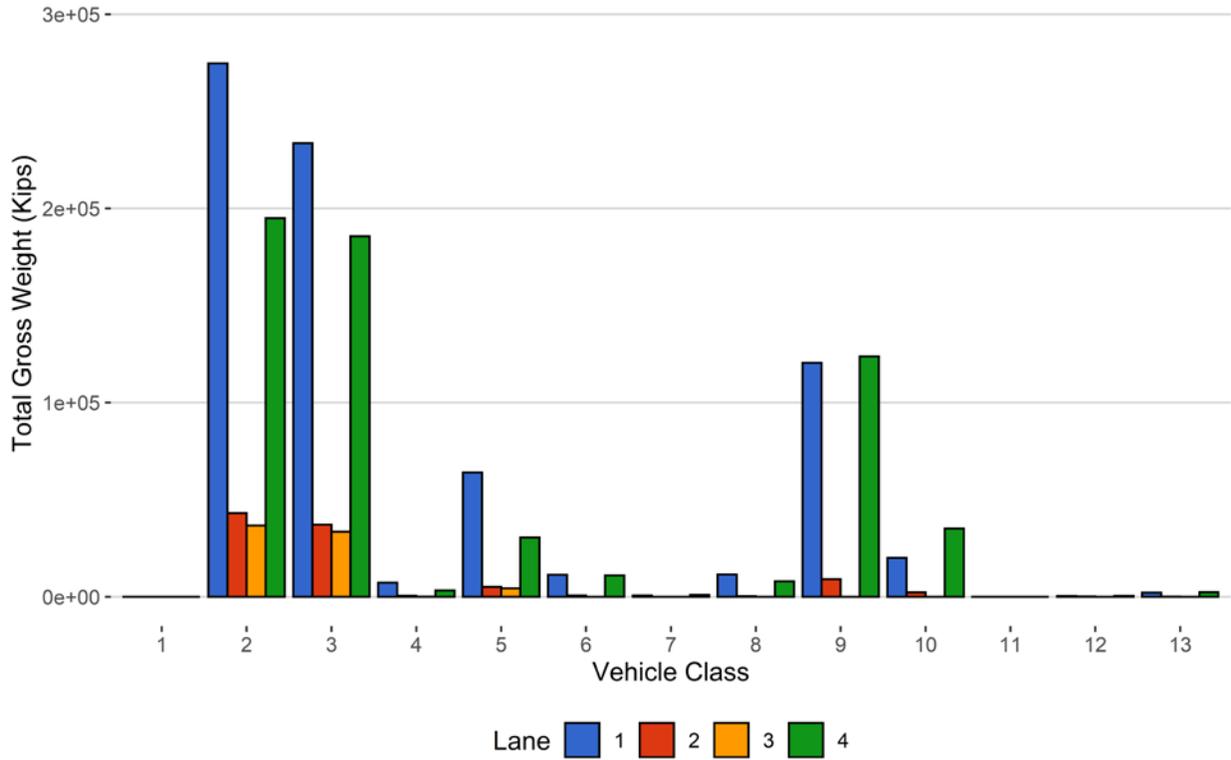


Figure 11 - Total Gross Vehicle Weight t

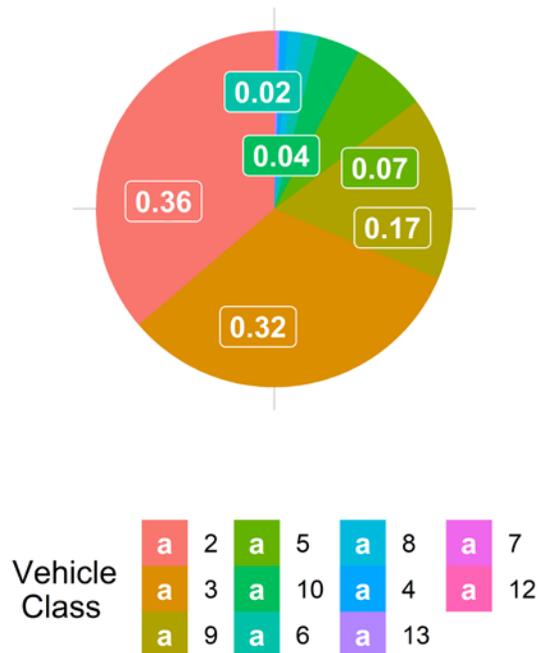


Figure 12 - Total ESALs by Class and Lane

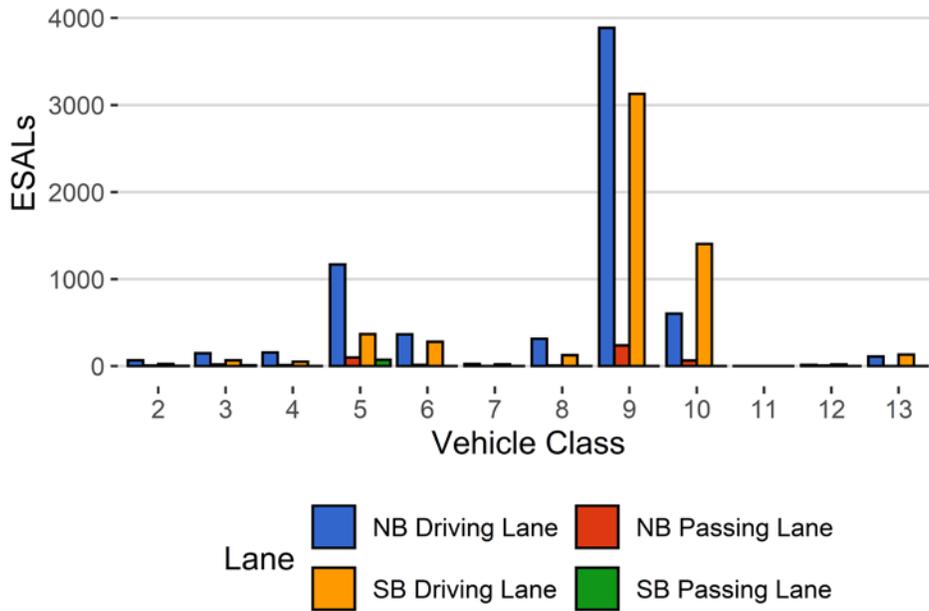
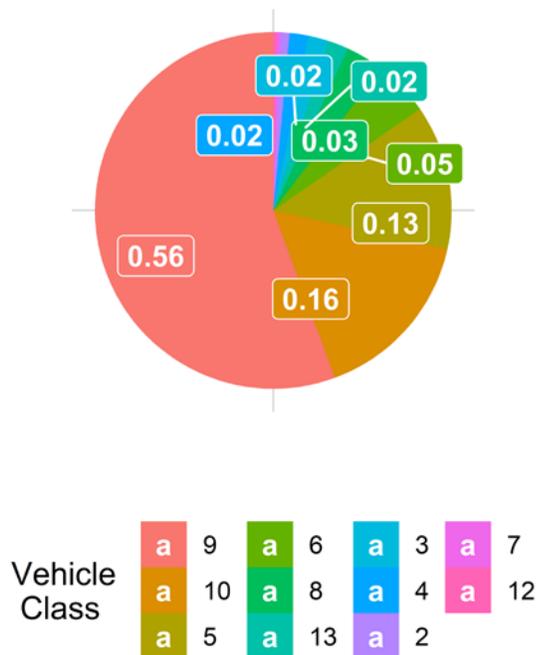


Figure 13 - ESALs by Class



**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>
November 2017	12.49	0.00	11.46	0.00	10.99	0.00	11.28	0.00
December 2017	12.60	0.84	11.72	2.26	10.92	-0.59	11.14	-1.27
January 2018	12.53	0.28	11.50	0.37	10.83	-1.39	11.45	1.49
February 2018	12.47	-0.15	11.59	1.15	10.92	-0.63	11.87	5.21
March 2018	12.41	-0.62	11.61	1.28	11.28	2.70	12.01	6.53
April 2018	12.34	-1.20	11.49	0.28	11.21	2.03	11.90	5.50
May 2018	12.25	-1.93	11.30	-1.43	10.64	-3.12	11.12	-1.37
June 2018	12.25	-1.92	11.42	-0.32	10.67	-2.90	11.08	-1.72
July 2018	12.31	-1.45	11.54	0.66	10.78	-1.91	11.09	-1.70
August 2018	12.39	-0.78	11.65	1.70	10.72	-2.45	11.09	-1.63
September 2018	12.43	-0.53	11.60	1.26	10.83	-1.41	11.03	-2.23
October 2018	12.61	0.96	11.67	1.80	10.81	-1.63	11.25	-0.26
November 2018	12.73	1.87	11.59	1.14	11.04	0.49	11.17	-0.94
December 2018	12.77	2.26	11.49	0.30	11.06	0.69	11.19	-0.75
January 2019	12.83	2.66	11.94	4.16	11.04	0.50	11.16	-1.09
February 2019	13.35	6.90	11.62	1.44	9.99	-9.06	11.54	2.30
March 2019	13.12	5.02	11.81	3.03	9.92	-9.71	11.82	4.76
April 2019	13.11	4.96	11.99	4.67	10.01	-8.87	12.13	7.56
May 2019	12.97	3.78	11.77	2.74	NA	NA	11.58	2.64
June 2019	13.01	4.11	12.08	5.39	NA	NA	11.40	1.05
July 2019	13.04	4.39	11.93	4.08	NA	NA	11.43	1.35
August 2019	13.22	5.78	12.02	4.92	NA	NA	11.47	1.69
September 2019	13.26	6.15	11.88	3.70	NA	NA	11.46	1.64
October 2019	13.17	5.38	11.84	3.35	NA	NA	11.48	1.79
November 2019	13.55	8.49	12.27	7.05	NA	NA	11.59	2.76

December 2019	13.74	9.96	12.08	5.38	NA	NA	11.67	3.45
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**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	3880	120265	58.2	0	0
3	2336	72410	35.1	0	0
4	13	408	0.2	37	1.6
5	231	7173	3.5	256	10.9
6	19	599	0.3	136	5.8
7	1	29	0	12	0.5
8	20	614	0.3	62	2.6
9	136	4214	2	1393	59.3
10	24	736	0.4	414	17.6
11	0	0	0	0	0
12	0	10	0	9	0.4
13	2	49	0	31	1.3
<b>TOTAL</b>	<b>6662</b>	<b>206508</b>	<b>100</b>	<b>2350</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>
2019-12-05	Thursday	14:02:04	10	SB	4	159.7
2019-12-04	Wednesday	13:16:36	10	SB	4	138.14
2019-12-09	Monday	16:10:45	10	NB	1	132.53
2019-12-18	Wednesday	04:57:37	10	NB	1	131.15
2019-12-13	Friday	14:31:11	10	NB	1	130.96
2019-12-04	Wednesday	01:22:26	10	SB	4	130.86
2019-12-15	Sunday	05:29:42	10	NB	1	129.51
2019-12-13	Friday	13:19:38	10	SB	4	128.02
2019-12-21	Saturday	11:33:24	10	SB	4	125.69
2019-12-10	Tuesday	11:54:44	10	NB	1	124.16

**Table 4 Freight Summary**

<i>Vehicle Class</i>	<i>Direction</i>	<i>Weight of Empty Vehicle (Kips)</i>	<i>Total Number of Vehicles</i>	<i>Number of Empty Vehicles</i>	<i>Percentage of Empty Vehicles</i>	<i>Total Weight of Vehicles with Freight (Kips)</i>	<i>Total Weight of Empty Vehicles (Kips)</i>	<i>Total Weight of Freight (Tons)</i>
4	NB	15	274	11	4	7619	156	1837
5	NB	8	4507	35	0.8	68909	239	16567
6	NB	19	293	1	0.3	11969	16	3210
7	NB	11.5	11	0	0	665	0	269
8	NB	31	339	130	38.3	9609	2182	1565
9	NB	33	2035	48	2.4	128178	1447	31303
10	NB	33.5	328	8	2.4	22084	224	5682
12	NB	36.5	5	0	0	454	0	136
13	NB	31.5	16	0	0	2188	0	842
<b>TOTAL</b>	****	****	<b>7808</b>	<b>233</b>	****	<b>251675</b>	****	<b>61411</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	128	39	30.5	2735	522	700
5	SB	8	2556	391	15.3	32045	2805	7363
6	SB	19	297	7	2.4	10909	122	2699
7	SB	11.5	18	0	0	980	0	386
8	SB	31	266	138	51.9	4876	3079	454
9	SB	33	2115	410	19.4	112220	11532	27978
10	SB	33.5	397	31	7.8	34274	909	11006
12	SB	36.5	5	0	0	476	0	147
13	SB	31.5	32	10	31.2	2252	139	780
<b>TOTAL</b>	****	****	<b>5814</b>	<b>1026</b>	****	<b>200767</b>	****	<b>51513</b>
<b>GRAND TOTAL</b>	****	****	<b>13622</b>	<b>1259</b>	<b>207</b>	<b>452442</b>	<b>23372</b>	<b>112924</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>
2	274714	43094	36642	195070	549520	36.3
3	233606	37172	33518	185725	490020	32.3
4	7242	533	18	3239	11033	0.7
5	64068	5081	4329	30520	103998	6.9
6	11316	668	0	11031	23016	1.5
7	665	0	0	980	1644	0.1
8	11498	294	0	7955	19746	1.3
9	120540	9086	0	123752	253378	16.7
10	20012	2297	0	35182	57491	3.8
12	340	113	0	476	930	0.1
13	2134	54	0	2391	4579	0.3
<b>TOTAL</b>	<b>746134</b>	<b>98392</b>	<b>74507</b>	<b>596320</b>	<b>1515353</b>	<b>100</b>
<b>GVW/LANE</b>	<b>49.24</b>	<b>6.49</b>	<b>4.92</b>	<b>39.35</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>
2	66	8	4	24	103	0.79	0.0018
3	148	18	9	67	242	1.85	0.0068
4	158	12	0	51	220	1.69	1.1
5	1169	101	73	367	1710	13.12	0.49
6	365	14	0	280	659	5.06	2.23
7	25	0	0	22	47	0.36	2.81
8	316	6	0	126	449	3.44	1.48
9	3885	238	0	3127	7251	55.61	3.5
10	604	66	0	1403	2073	15.9	5.68
12	14	8	0	19	40	0.31	4.24
13	111	0	0	133	244	1.87	8.24
<b>TOTAL</b>	<b>6863</b>	<b>471</b>	<b>86</b>	<b>5619</b>	<b>13038</b>	<b>100</b>	<b>30</b>
<b>ESALS/LANE</b>	<b>52.6</b>	<b>3.6</b>	<b>0.7</b>	<b>43.1</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>
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
May 2019	274445	8601	515	258492	94.2	15952.7	5.8	93.9	6.1
Jun 2019	311618	10387	579	294255	94.4	17363.2	5.6	93.6	6.4
Jul 2019	356490	11558	613	337476	94.7	19014.3	5.3	92.9	7.1
Aug 2019	371714	11905	629	352205	94.8	19508.8	5.2	93.1	6.9
Sep 2019	318725	10636	594	300895	94.4	17830	5.6	93.5	6.5
Oct 2019	292027	9465	581	274022	93.8	18005.3	6.2	94.1	5.9
Nov 2019	207287	7103	456	193610	93.4	13677.1	6.6	94.3	5.7
Dec 2019	206508	6810	446	192675	93.3	13833.5	6.7	92.9	7.1
<b>TOTAL</b>	<b>3161821</b>	<b>-</b>	<b>-</b>	<b>2975305</b>	<b>-</b>	<b>186517</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>AVERA GE</b>	<b>263485</b>	<b>8657</b>	<b>510</b>	<b>247942</b>	<b>94</b>	<b>15543</b>	<b>6</b>	<b>93</b>	<b>7</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>
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
May 2019	6651	375	39	5840	12906	97	3	30.5

Jun 2019	15762	1045	78	10706	27592	96	4	30.7
Jul 2019	8778	606	54	5816	15254	96	4	35.5
Aug 2019	8996	606	51	6492	16146	96	4	41.2
Sep 2019	7803	518	53	5547	13921	96	4	37.1
Oct 2019	11856	753	58	9904	22570	96	4	47.2
Nov 2019	6550	412	1058	5894	13915	89	11	62.5
Dec 2019	6962	479	12870	5622	25933	49	51	0
<b>TOTAL</b>	<b>93929</b>	<b>6029</b>	<b>46567</b>	<b>80464</b>	<b>226988</b>	-	-	-
<b>AVERAGE</b>	<b>7827</b>	<b>502</b>	<b>3881</b>	<b>6705</b>	<b>18916</b>	<b>83</b>	<b>17</b>	<b>42</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>
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
May 19	898098	146399	99456	755605	1899557
Jun 19	2008556	353513	251596	1652087	4265752
Jul 19	1126610	208417	157710	915089	2407827
Aug 19	1182385	216132	157794	967889	2524200
Sep 19	1007596	170158	137814	856415	2171982
Oct 19	1431615	230802	174577	1233176	3070171
Nov 19	732680	100004	64775	631667	1529125
Dec 19	747845	98488	77293	596629	1520255
<b>TOTAL</b>	<b>11797274</b>	<b>1875289</b>	<b>1389045</b>	<b>10167908</b>	<b>25229516</b>
<b>AVERAGE</b>	<b>983106</b>	<b>156274</b>	<b>115754</b>	<b>847326</b>	<b>2102460</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>
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
May 2019	2475	0.9	15.6	829	170
Jun 2019	5196	0.8	15	1414	468
Jul 2019	2973	0.8	15.7	999	370
Aug 2019	3022	0.8	15.6	1116	414
Sep 2019	2514	0.8	14.2	848	297

Oct 2019	4283	1	16.2	1739	666
Nov 2019	2410	1.2	17.7	1187	507
Dec 2019	2400	1.2	17.3	1010	503
<b>TOTAL</b>	<b>34139</b>	<b>-</b>	<b>-</b>	<b>13514</b>	<b>5326</b>
<b>AVERAGE</b>	<b>2844.9</b>	<b>1</b>	<b>16.3</b>	<b>1126.2</b>	<b>443.8</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>
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
May 2019	64933	57952	122885	52.8	47.2
Jun 2019	148605	106963	255569	58.1	41.9
Jul 2019	86633	56847	143480	60.4	39.6
Aug 2019	84605	62221	146826	57.6	42.4
Sep 2019	73860	54243	128103	57.7	42.3
Oct 2019	112361	96582	208943	53.8	46.2
Nov 2019	59212	56035	115247	51.4	48.6
Dec 2019	61411	51513	112924	54.4	45.6
<b>TOTAL</b>	<b>885555</b>	<b>783841</b>	<b>1669396</b>	<b>-</b>	<b>-</b>
<b>AVERAGE</b>	<b>73796.2</b>	<b>65320.1</b>	<b>139116.4</b>	<b>51.9</b>	<b>48.1</b>