

MARCH 2018



**WIM #32  
US 52, MP 66.0  
ORONOCO, MN**

**MONTHLY  
REPORT**



*Your Destination...Our Priority*



## WIM Site Location

WIM #32 is located on US 52 near Oronoco in Olmsted county.

## System Operation

WIM #32 was operational for the entire month of March 2018. Volume was computed using all monthly data.

## System Calibration

WIM #32 was most recently calibrated on 2017-05-05. Table 1 summarizes the front axle weights of class 9s by lane <sup>1</sup>. Table 1 indicates that the class 9 front axle weights were all within +/- 9% of baseline calibration values for all lanes except lane 3. Figure 1 shows the distribution of gross vehicle weights (GVW) in Class 9 vehicles at this site for the last 12 months of operation <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: 899645 | Passenger Vehicles: 831445 | Heavy Commercial Vehicles: 68200

Monthly Average Daily Traffic (MADT): 29021 | Monthly Heavy Commercial Average Daily Traffic (MHCADT): 2200

See Table 2 for vehicle class breakdown

## Passenger Vehicles (PVs) and Heavy Commercial Vehicles (HCVs)

**Volume trends.** NB vehicles typically reached highest volume levels on Fridays, with lowest volumes reported on Mondays. SB vehicles typically reached highest volume levels on Fridays, with lowest volumes reported on Mondays (see Figure 3 and 4).

### Passenger Vehicles (PVs)

**Volume trends.** On an average 24-hour day (see Figure 5), NB PVs generally reached peak volume levels between 03 PM and 05 PM. Similarly, SB PVs peaked in volume between 07 AM and 05 PM

### Heavy Commercial Vehicles (HCVs)

**Volume trends.** On an average 24-hour day, HCVs traveling NB typically reached peak volume levels between 03 PM and 05 PM, while volume going SB peaked between 07 AM and 05 PM. See Figure 6. Out of all HCVs, the two highest traffic volumes were generated by Class 9's and Class 5's.

## Overweight HCVs

**Volume trends.** Of a total of 68200 HCVs, 1057 of them were overweight<sup>3</sup>. These overweight HCVs contributed to 0.1% of total monthly volume, and 1.6% of total monthly HCV volume. NB overweight vehicles typically reached highest numbers on Thursdays, with lowest volumes reported on Saturdays. 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 13 vehicles . Overall, overweight vehicles tended to reach peak volume concentrations during typical business hours, with 74.3% 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 July.

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 ,39 NB vehicles exceeded 88,000 pounds (27 vehicles were Class 13's; 6 vehicles were Class 9's). Of vehicles traveling SB,

31 NB vehicles exceeded 88,000 pounds (22 vehicles were Class 13's; 5 vehicles were Class 10's). Refer to Table 3 for the Top 10 highest recorded GVWs from Classes 9 and 10 from March 2018.

**Loaded vs. Unloaded HCVs.** Figure 10 shows the GVW distributions of Class 9s and 10s in March 2018. Data suggests that there were greater numbers of fully\_loaded Class 9's than empty Class 9's traveling NB, while there were more empty Class 9's than fully\_loaded traveling SB. Data also suggests that there were more fully\_loaded Class 10's than empty traveling in the NB direction. In the SB direction, there were more fully\_loaded class 10 vehicles.

**Freight Totals.** A total of 478646 tons of freight was recorded to have crossed the WIM. More freight was shipped NB (54.2%) than SB (45.8%). See Table 4 and Figure 11 for more freight information.

## Infrastructure Considerations

**Bridge.** Bridge No. 55X13 (a box culvert) is approximately 1/3 of a mile north of WIM #32, and Bridge No. 8960 (a box culvert) is approximately 1 ¾ miles south of WIM #32. WIM #32 recorded a total of 899645 vehicles with a combined GVW of 5970921 kips (1 kip = 1,000 pounds = 0.5 tons) in March 2018. See Table 5 and Figures 12-13 for GVW information by vehicle class and lane.

**Pavement Design.** A total of 35330 equivalent single axle loads (ESALs) passed over the pavement at this site. Approximately 56% of all ESALs were recorded NB while 44% was observed SB. In particular, 80% of all ESALs were generated by the Class 9's (Class 9's were also responsible for generating 36% 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).

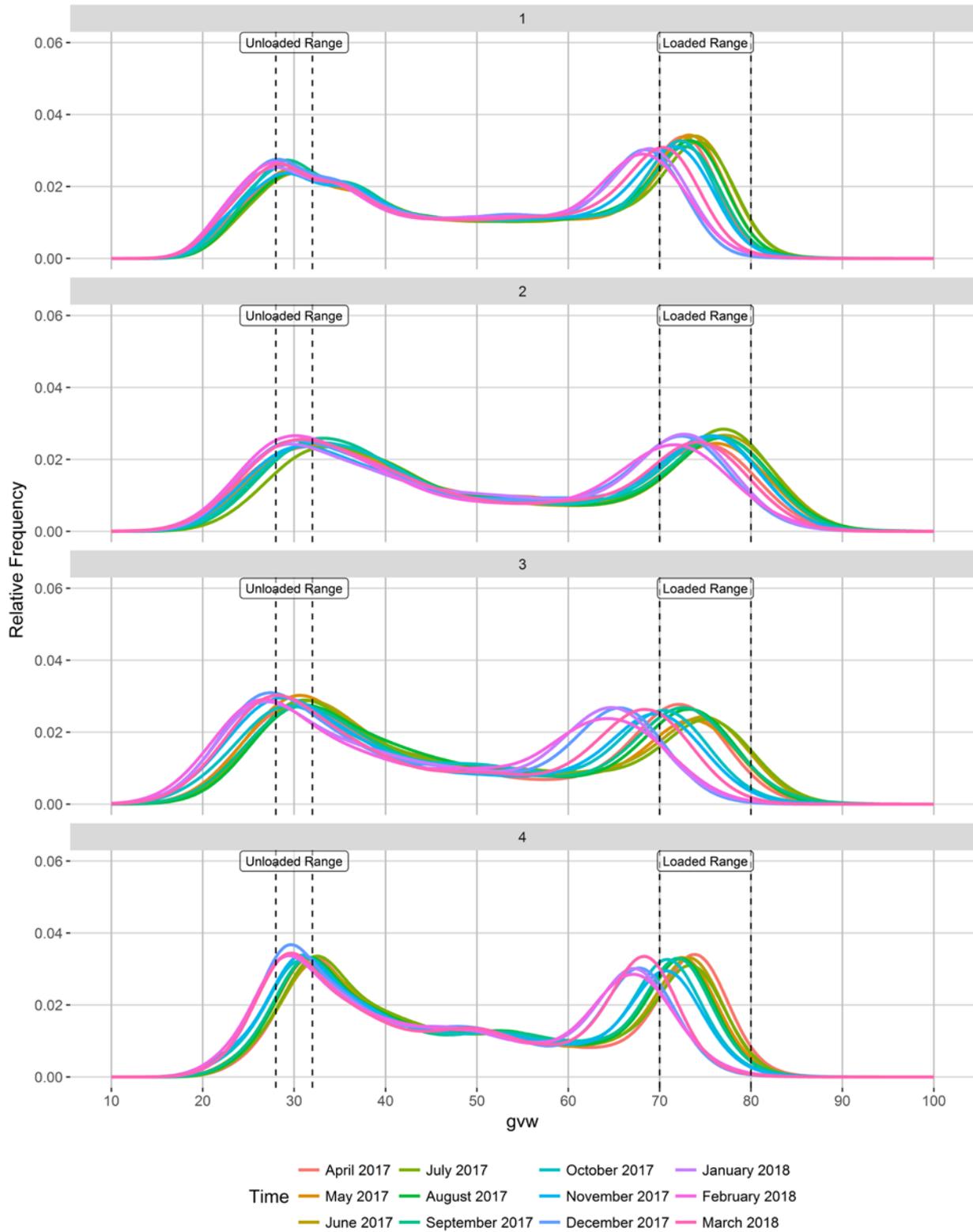
*WIM monthly reports can be found at: <http://www.dot.state.mn.us/traffic/data/reports-monthly-wim.html>*

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.

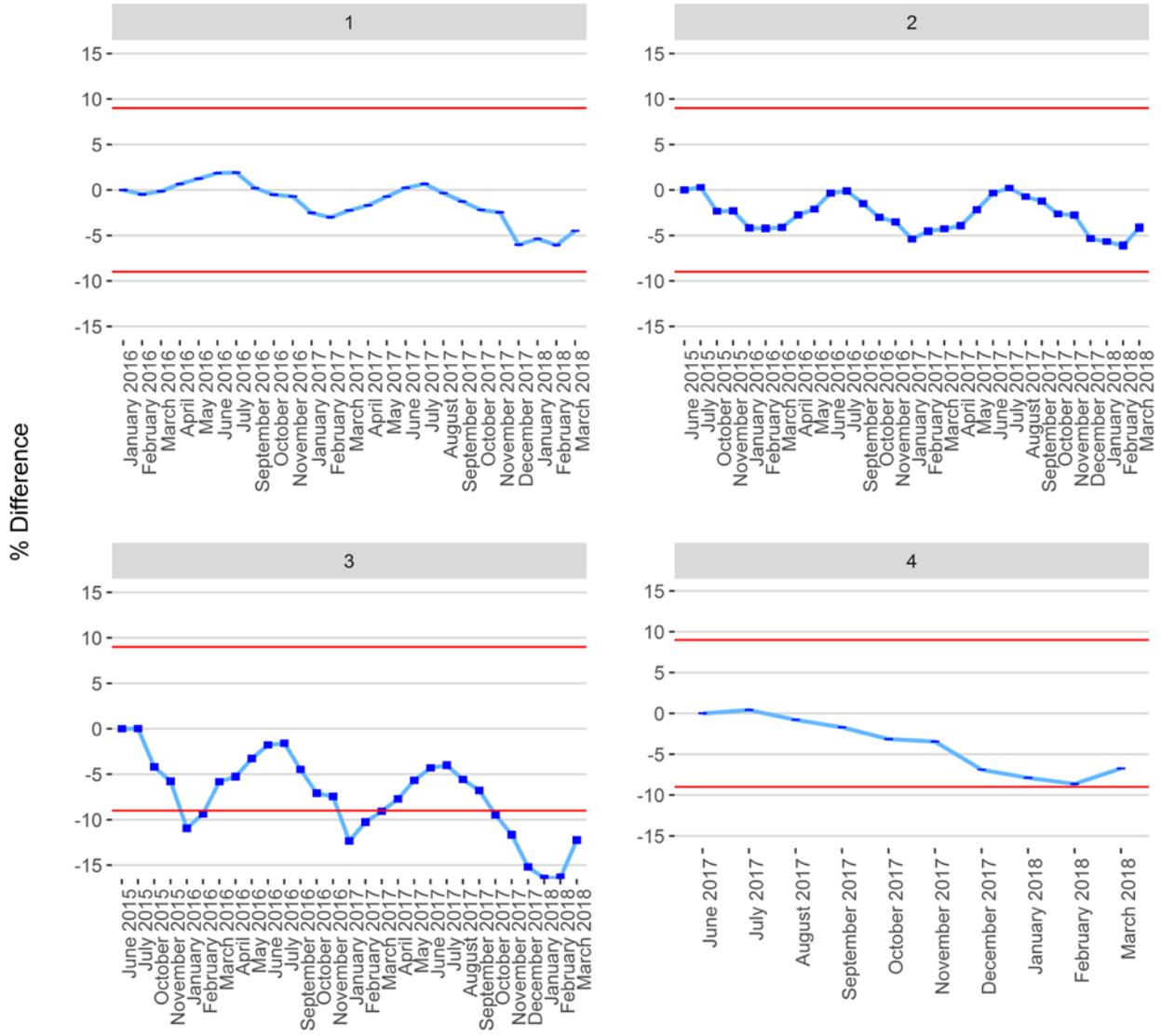
**To request this document in an alternative format, please call 651-366-4718 or 1-800-657-3774, or email your request to [ADArequest.dot@state.mn.us](mailto:ADArequest.dot@state.mn.us). Please request at least one week in advance.**

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

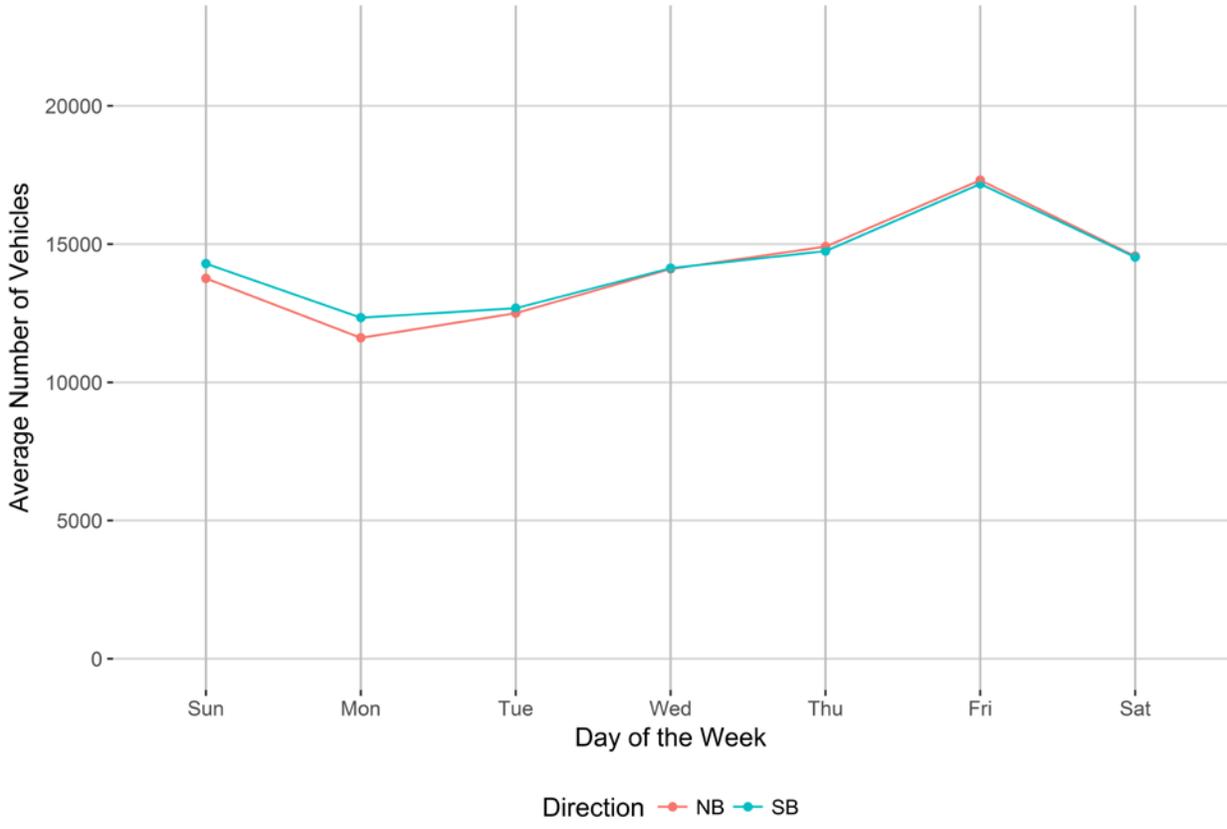


Figure 3 - Average Overweight Vehicle Volume vs. Day of the Week

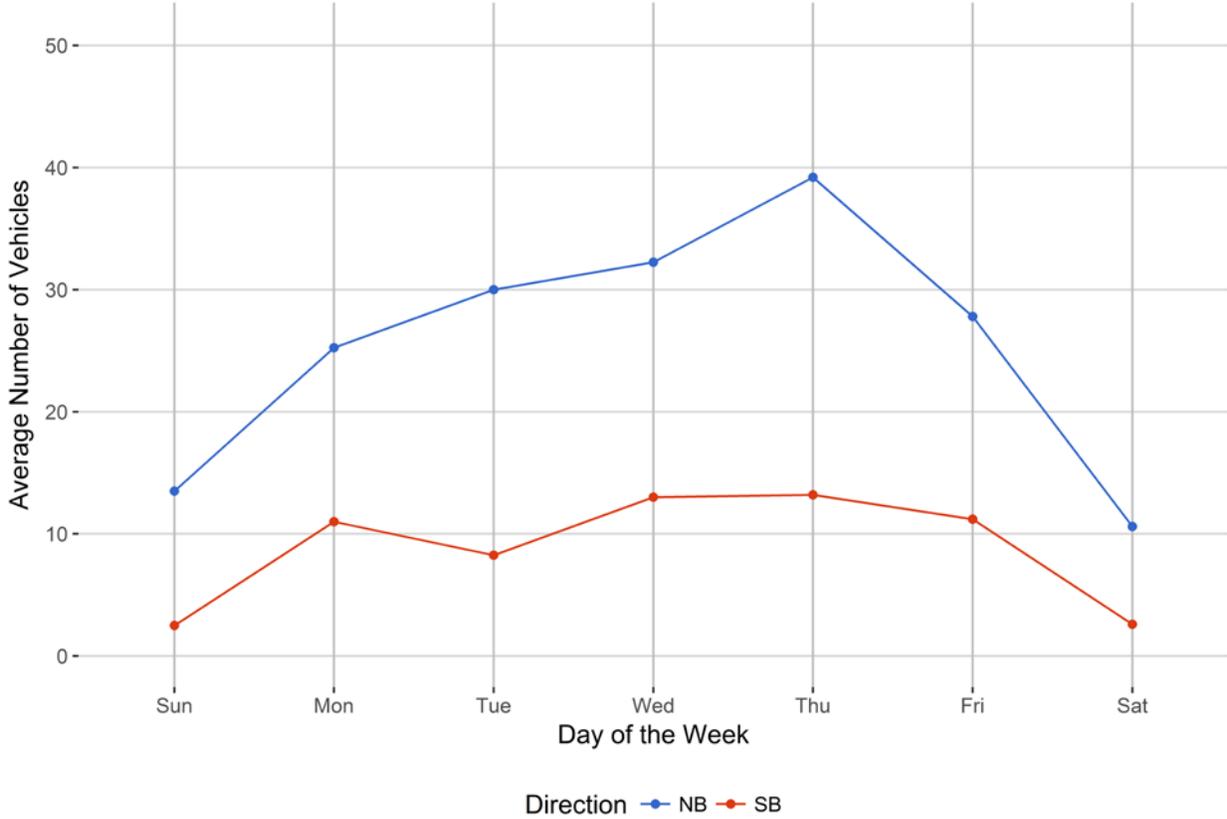


Figure 4 - Passenger Vehicles vs. Hour of the Day

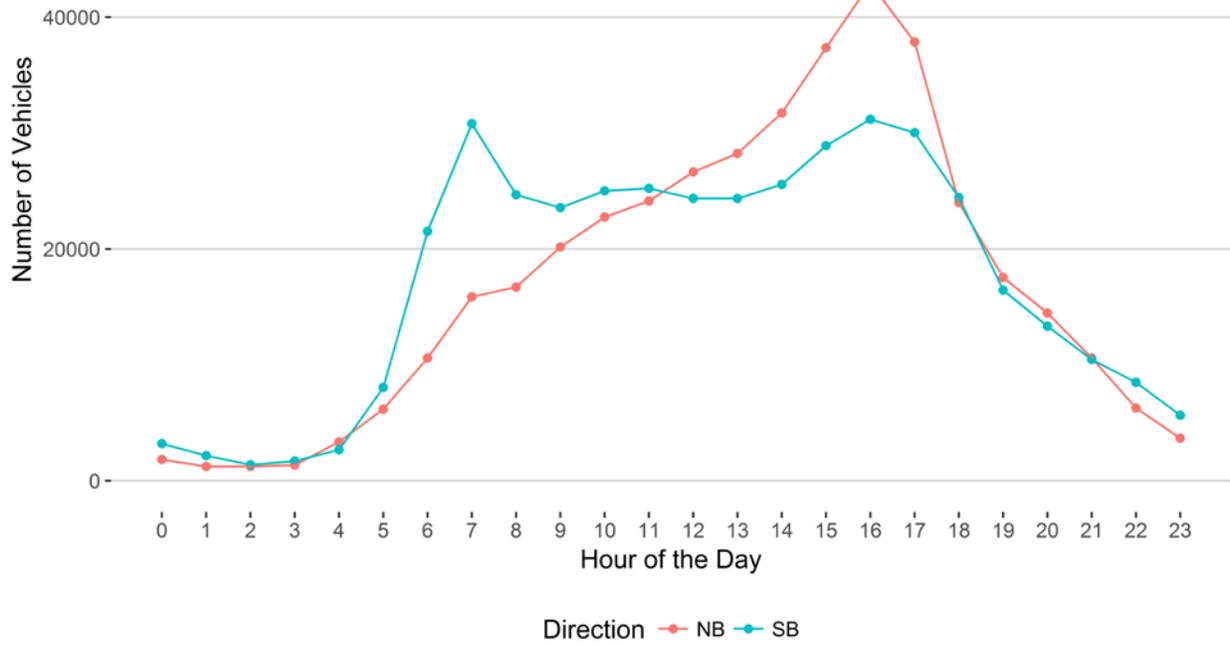


Figure 5 - Heavy Commercial Vehicles vs. Hour of the Day

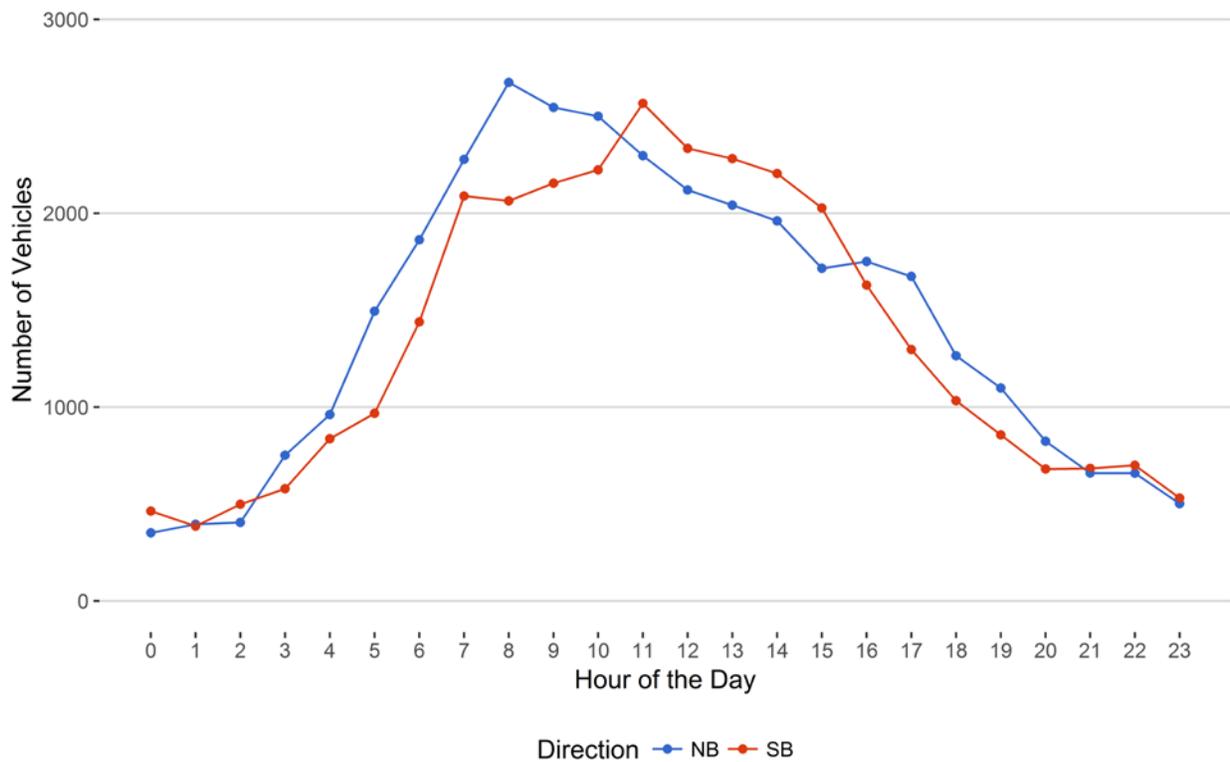


Figure 6 - Overweight Vehicles by Class vs. Hour of the Day

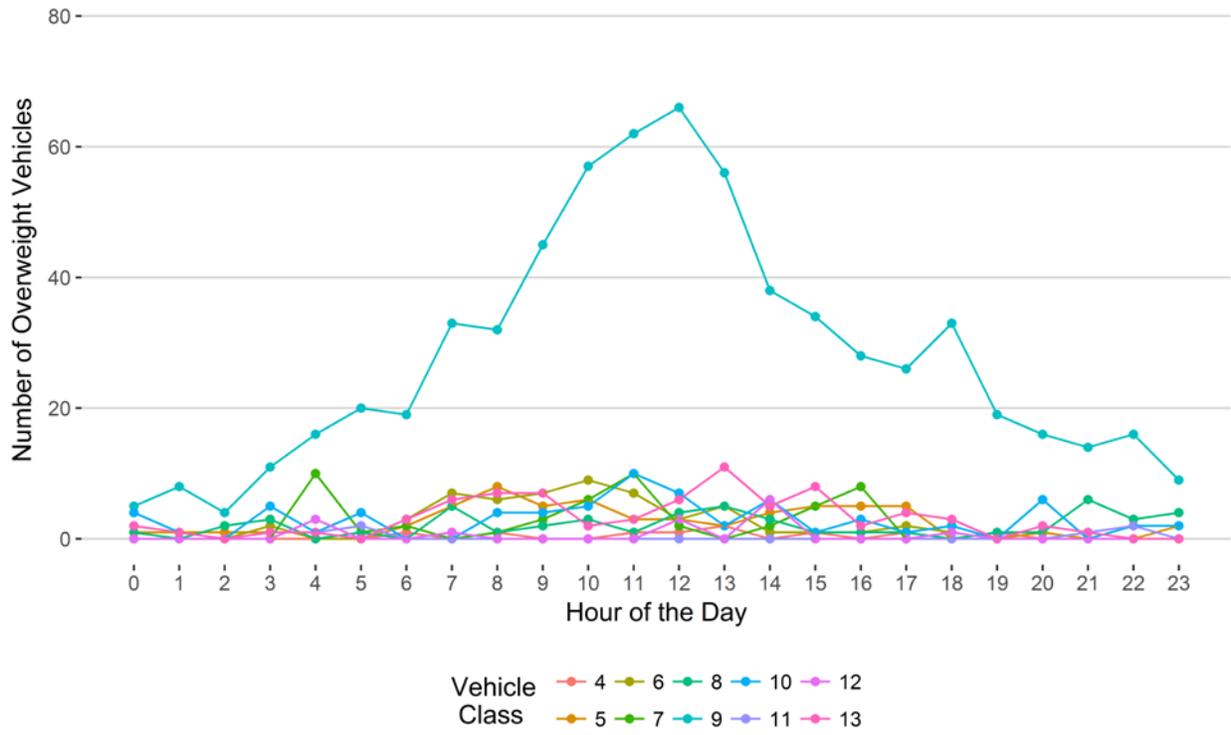


Figure 7 - Overweight Vehicles by Direction  
Hour of the Day

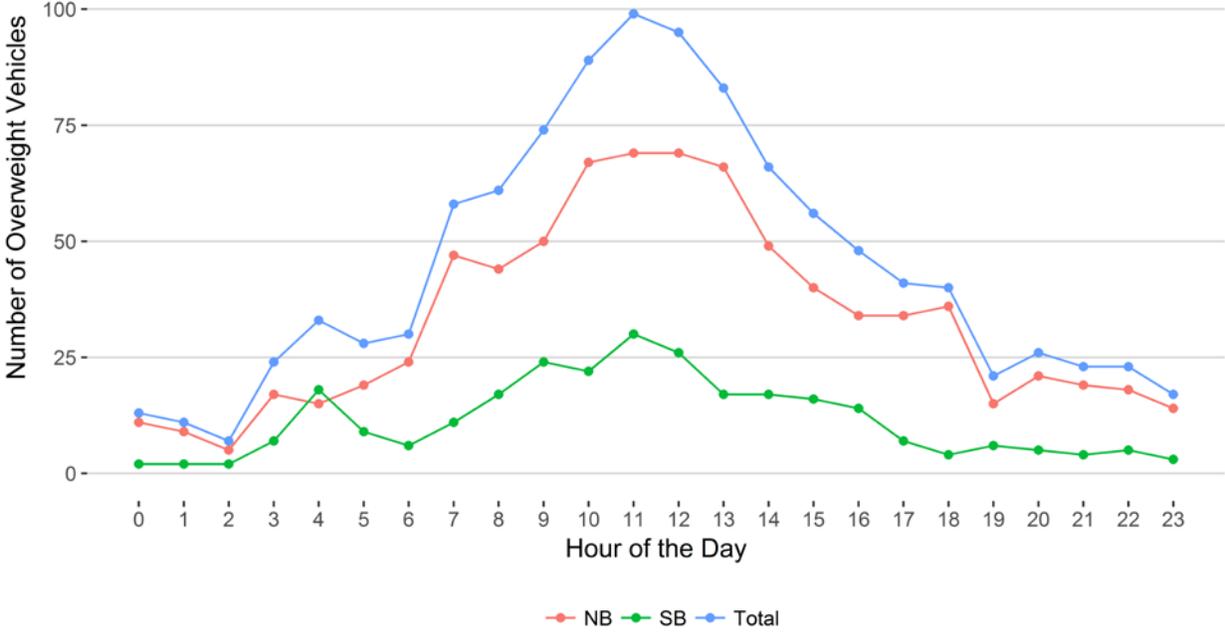
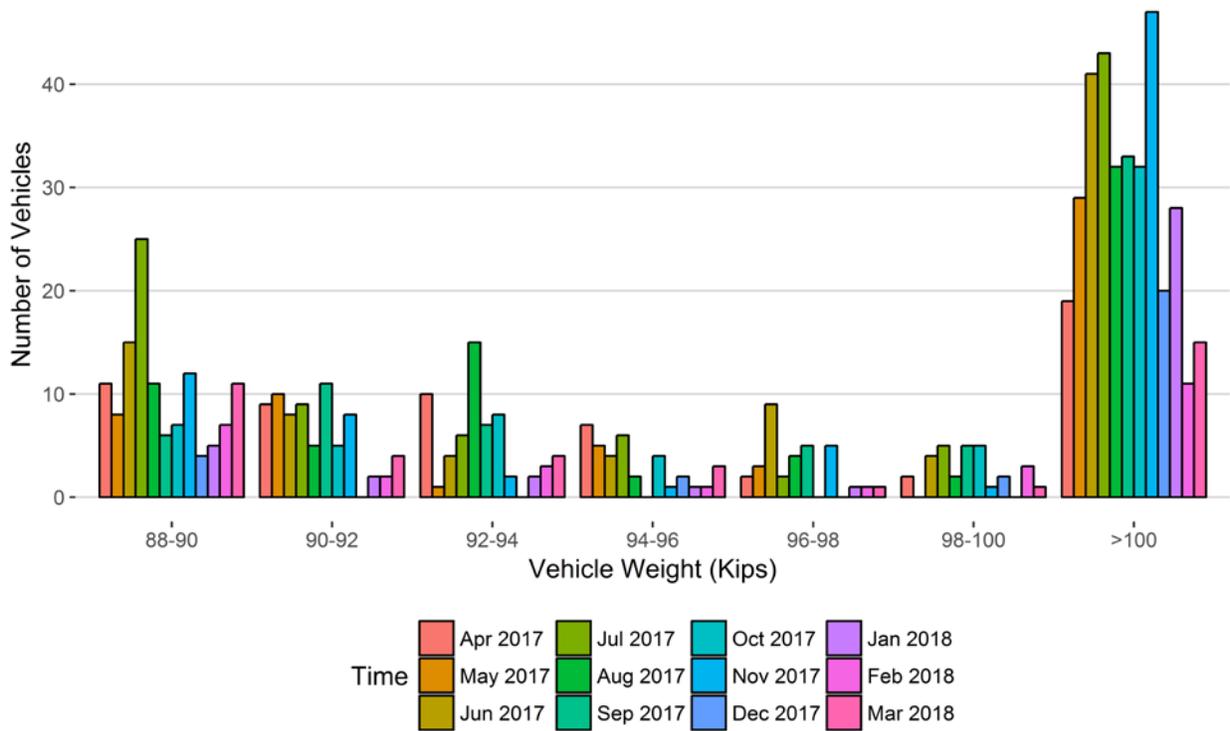
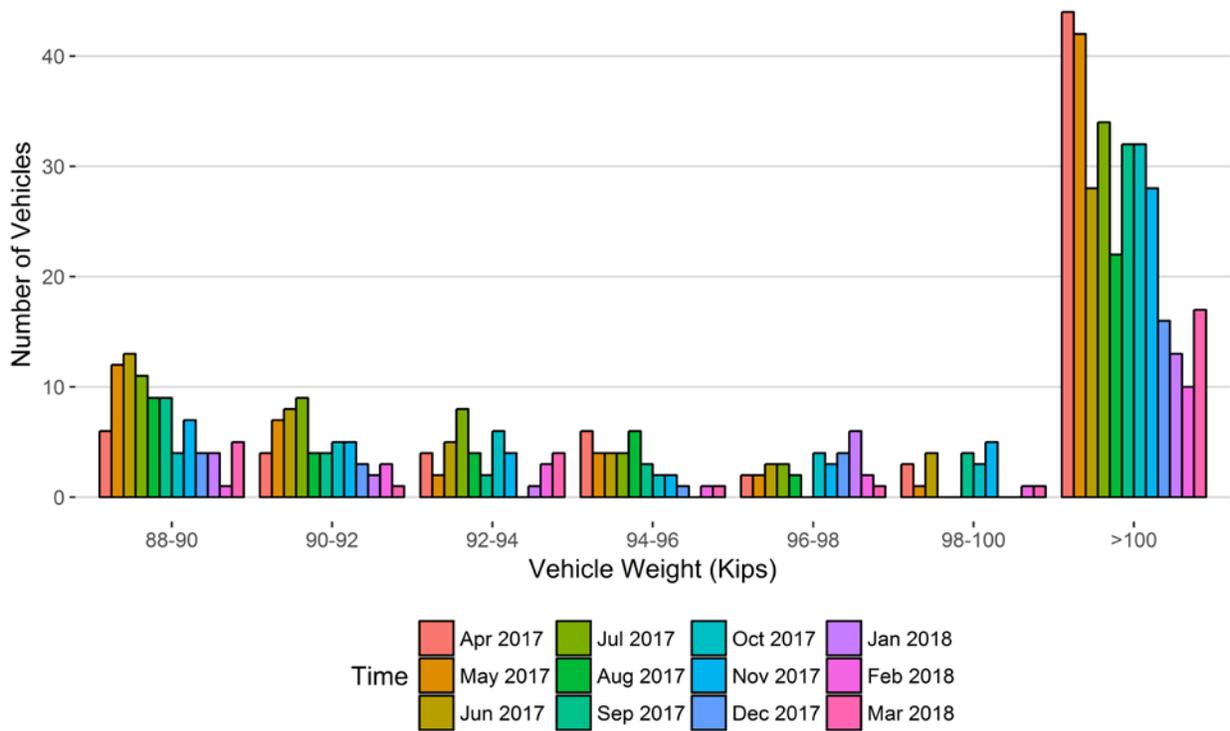


Figure 8 - Histogram of NB Vehicles Over 88,000 Pounds for Current Month



Vehicle Weights (Kips)	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018
88-90	11	8	15	25	11	6	7	12	4	5	7	11
90-92	9	10	8	9	5	11	5	8	0	2	2	4
92-94	10	1	4	6	15	7	8	2	0	2	3	4
94-96	7	5	4	6	2	0	4	1	2	1	1	3
96-98	2	3	9	2	4	5	0	5	0	1	1	1
98-100	2	0	4	5	2	5	5	1	2	0	3	1
>100	19	29	41	43	32	33	32	47	20	28	11	15
Total	60	56	85	96	71	67	61	76	28	39	28	39

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



Vehicle Weights (Kips)	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018
88-90	6	12	13	11	9	9	4	7	4	4	1	5
90-92	4	7	8	9	4	4	5	5	3	2	3	1
92-94	4	2	5	8	4	2	6	4	0	1	3	4
94-96	6	4	4	4	6	3	2	2	1	0	1	1
96-98	2	2	3	3	2	0	4	3	4	6	2	1
98-100	3	1	4	0	0	4	3	5	0	0	1	1
>100	44	42	28	34	22	32	32	28	16	13	10	17
Total	69	70	65	69	47	54	56	54	28	26	21	30

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

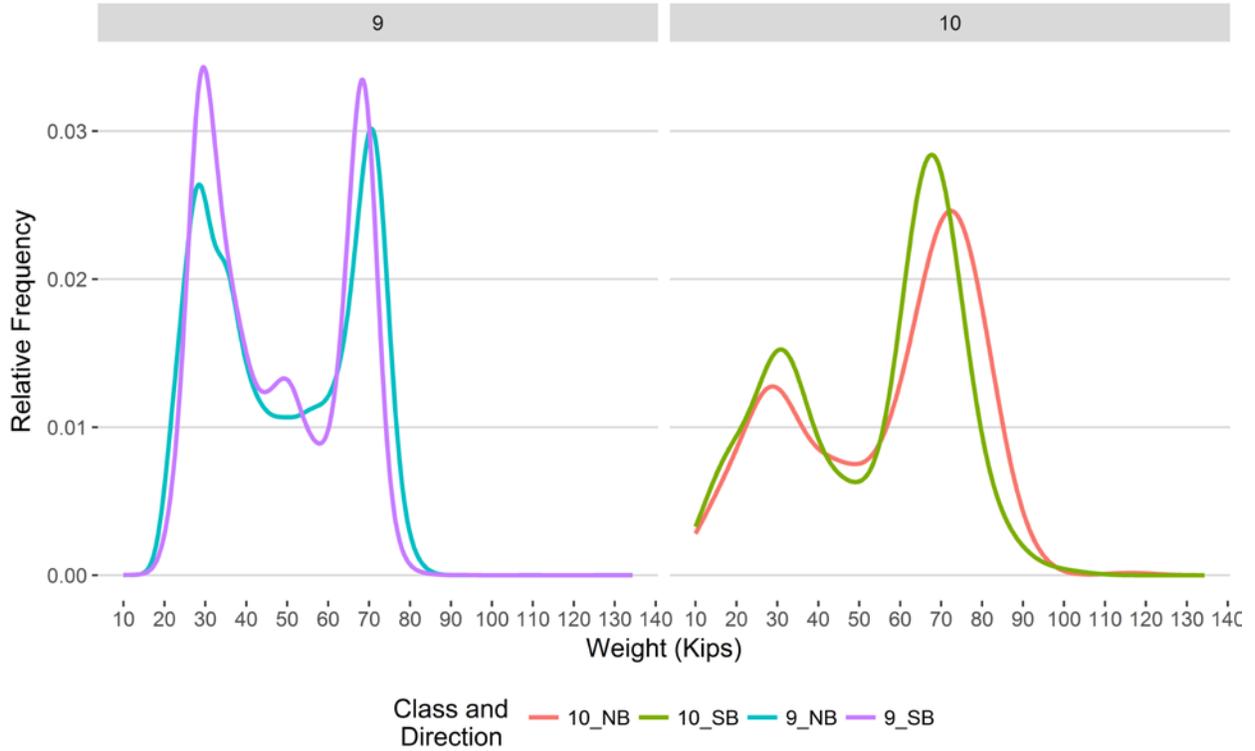


Figure 9 - Freight Percentage by Direction and Class

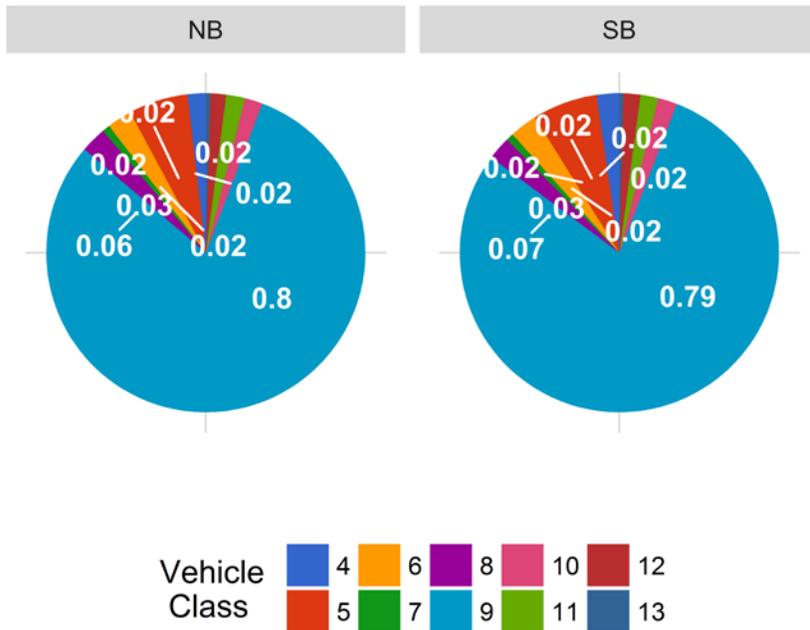


Figure 10 - Total Gross Vehicle Weight Percentage by Class and Lane

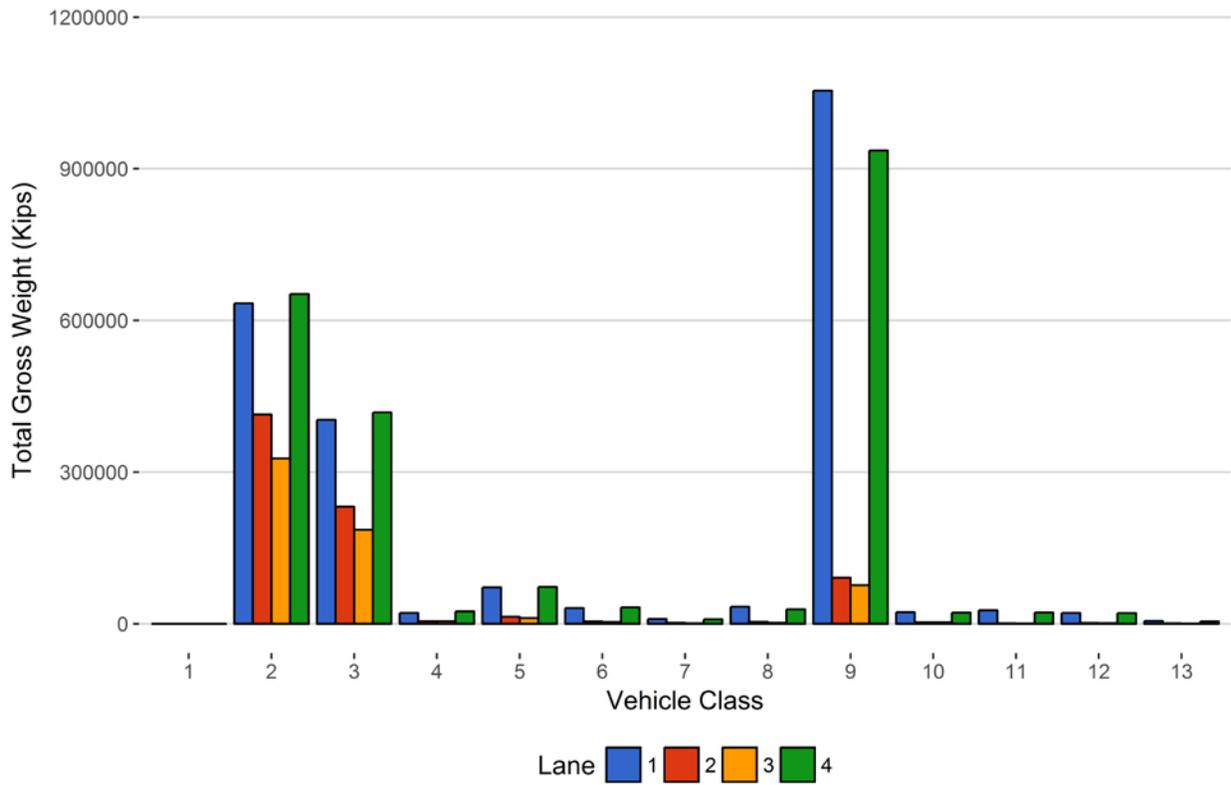


Figure 11 - Total Gross Vehicle Weight I

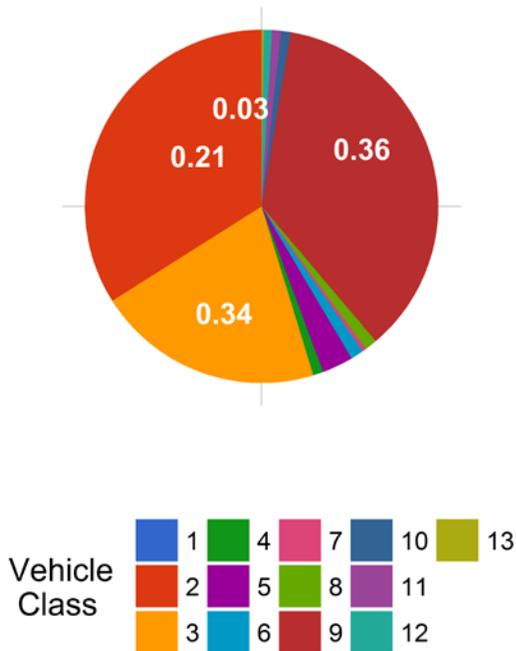


Figure 12 - Total ESALs by Class and Lane

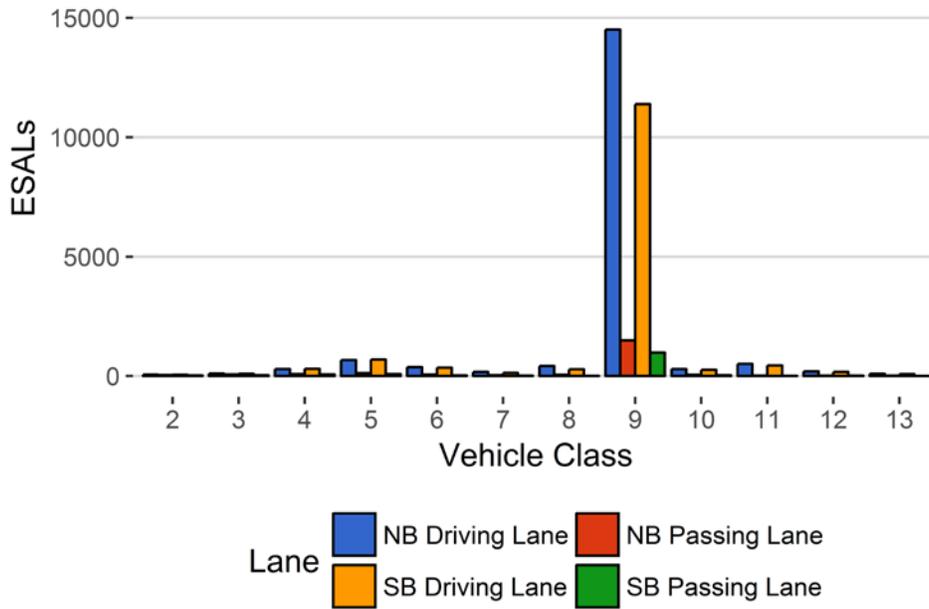
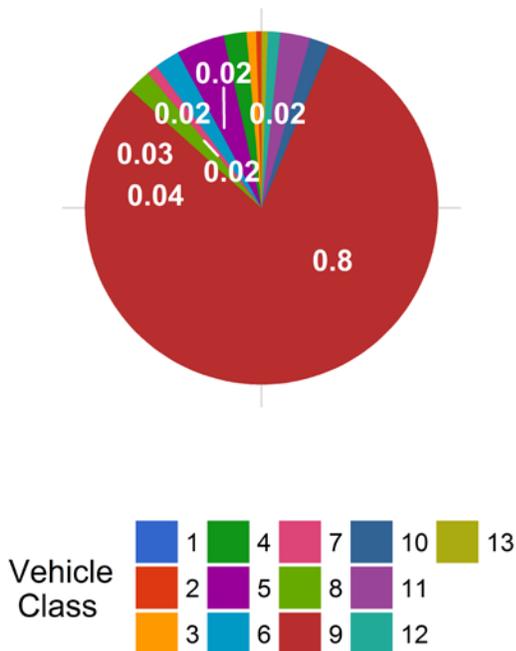


Figure 13 - ESALs by Class



**Table 1 Class 9 Front Axle Weight by Lane**

<i>Month</i>	<i>Lane 1 (Kips)</i>	<i>Front Axle +/- 9%</i>	<i>Lane 2 (Kips)</i>	<i>Front Axle +/- 9%</i>	<i>Lane 3 (Kips)</i>	<i>Front Axle +/- 9%</i>	<i>Lane 4 (kips)</i>	<i>Front Axle +/- 9%</i>
June 2015	NA	NA	11.20	0.00	11.34	0.00	NA	NA
July 2015	NA	NA	11.23	0.30	11.35	0.02	NA	NA
October 2015	NA	NA	10.93	-2.33	10.87	-4.19	NA	NA
November 2015	NA	NA	10.94	-2.29	10.69	-5.77	NA	NA
January 2016	10.55	0.00	10.73	-4.17	10.10	-10.94	NA	NA
February 2016	10.50	-0.47	10.72	-4.22	10.29	-9.33	NA	NA
March 2016	10.53	-0.14	10.74	-4.11	10.68	-5.82	NA	NA
April 2016	10.62	0.67	10.89	-2.75	10.75	-5.26	NA	NA
May 2016	10.68	1.24	10.96	-2.10	10.97	-3.27	NA	NA
June 2016	10.74	1.86	11.16	-0.34	11.14	-1.78	NA	NA
July 2016	10.75	1.92	11.18	-0.10	11.16	-1.59	NA	NA
September 2016	10.57	0.21	11.03	-1.49	10.84	-4.47	NA	NA
October 2016	10.49	-0.52	10.86	-3.01	10.54	-7.07	NA	NA
November 2016	10.47	-0.71	10.80	-3.51	10.50	-7.44	NA	NA
January 2017	10.28	-2.51	10.59	-5.39	9.94	-12.34	NA	NA
February 2017	10.23	-2.99	10.69	-4.53	10.18	-10.26	NA	NA
March 2017	10.31	-2.25	10.72	-4.26	10.32	-9.07	NA	NA
April 2017	10.37	-1.68	10.76	-3.92	10.47	-7.71	NA	NA
May 2017	10.47	-0.72	10.95	-2.16	10.70	-5.67	NA	NA
June 2017	10.57	0.24	11.16	-0.34	10.86	-4.30	10.78	0.00
July 2017	10.62	0.68	11.22	0.24	10.89	-4.00	10.82	0.42
August 2017	10.51	-0.35	11.11	-0.73	10.71	-5.58	10.69	-0.78
September 2017	10.41	-1.25	11.06	-1.23	10.58	-6.78	10.60	-1.70
October 2017	10.31	-2.19	10.90	-2.63	10.27	-9.46	10.44	-3.15
November 2017	10.29	-2.46	10.89	-2.77	10.02	-11.64	10.41	-3.43
December 2017	9.91	-6.02	10.60	-5.33	9.62	-15.19	10.04	-6.89

January 2018	9.98	-5.37	10.56	-5.67	9.48	-16.42	9.93	-7.89
February 2018	9.91	-6.06	10.51	-6.11	9.49	-16.37	9.85	-8.63
March 2018	10.07	-4.48	10.73	-4.14	9.96	-12.23	10.05	-6.73

**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	15	0	0	0
2	19135	593177	65.9	0	0
3	7686	238253	26.5	0	0
4	62	1932	0.2	9	0.9
5	412	12760	1.4	61	5.8
6	91	2812	0.3	55	5.2
7	12	380	0	50	4.7
8	77	2377	0.3	49	4.6
9	1453	45037	5	667	63.1
10	30	938	0.1	70	6.6
11	31	953	0.1	7	0.7
12	28	873	0.1	14	1.3
13	4	137	0	75	7.1
<b>TOTAL</b>	<b>29021</b>	<b>899645</b>	<b>100</b>	<b>1057</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>
2018-03-20	Tuesday	04:34:48	9	NB	1	134.36
2018-03-13	Tuesday	04:47:42	9	NB	1	131.14
2018-03-09	Friday	04:41:19	9	NB	1	127.72
2018-03-16	Friday	06:28:53	9	NB	1	122.76
2018-03-26	Monday	08:40:02	10	NB	2	116.32
2018-03-01	Thursday	06:54:42	10	SB	4	111.58
2018-03-23	Friday	05:02:30	9	NB	1	109.44
2018-03-07	Wednesday	12:10:25	10	SB	4	101.87
2018-03-12	Monday	10:59:37	10	SB	4	97.33
2018-03-23	Friday	14:24:55	9	NB	1	94.64

**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	869	119	13.7	24804	1455	6777
5	NB	8	6349	1188	18.7	77314	8478	18013
6	NB	19	1378	425	30.8	28787	6765	5340
7	NB	11.5	188	0	0	11237	0	4537
8	NB	31	1276	829	65	17829	19501	1986
9	NB	33	23245	6229	26.8	975640	169930	207056
10	NB	33.5	456	113	24.8	22868	2824	5689
11	NB	36.5	517	60	11.6	25307	1954	4313
12	NB	36.5	439	82	18.7	20154	2683	3562
13	NB	31.5	77	0	0	6318	0	1946
<b>TOTAL</b>	<b>****</b>	<b>****</b>	<b>34794</b>	<b>9045</b>	<b>****</b>	<b>1210258</b>	<b>****</b>	<b>259219</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	1038	177	17.1	27074	2160	7080
5	SB	8	6248	1493	23.9	73678	10444	17819
6	SB	19	1398	422	30.2	29160	6717	5308
7	SB	11.5	187	1	0.5	9704	9	3782
8	SB	31	1071	729	68.1	12797	17399	1098
9	SB	33	21216	6176	29.1	837161	175317	170421
10	SB	33.5	470	136	28.9	21407	3458	5109
11	SB	36.5	424	27	6.4	22070	851	3790
12	SB	36.5	423	34	8	21153	1109	3477
13	SB	31.5	58	0	0	4913	0	1543
<b>TOTAL</b>	<b>****</b>	<b>****</b>	<b>32533</b>	<b>9195</b>	<b>****</b>	<b>1059118</b>	<b>****</b>	<b>219426</b>
<b>GRAND TOTAL</b>	<b>****</b>	<b>****</b>	<b>67327</b>	<b>18240</b>	<b>422</b>	<b>2269375</b>	<b>431054</b>	<b>478646</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	6	4	2	4	16	0
2	633762	413960	326974	652153	2026849	34
3	403360	231614	185724	418064	1238762	20.8
4	21393	4867	4838	24395	55493	0.9
5	71921	13871	11297	72825	169915	2.8
6	30913	4639	3267	32610	71429	1.2
7	9445	1791	969	8744	20950	0.4
8	33652	3678	1854	28343	67527	1.1
9	1054579	90990	76456	936022	2158048	36.2
10	22945	2747	2789	22075	50557	0.8
11	26495	765	511	22410	50181	0.8
12	21345	1492	1270	20992	45099	0.8
13	5582	735	293	4620	11231	0.2
<b>TOTAL</b>	<b>2335399</b>	<b>771155</b>	<b>616245</b>	<b>2243257</b>	<b>5966056</b>	<b>100</b>
<b>GVW/LANE</b>	<b>39.14</b>	<b>12.93</b>	<b>10.33</b>	<b>37.6</b>	<b>100</b>	<b>0</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	55	42	25	53	174	0.49	6e-04
3	110	64	37	98	310	0.88	0.0026
4	292	84	66	295	737	2.09	0.78
5	666	119	79	691	1555	4.41	0.25
6	370	61	28	348	808	2.29	0.58
7	168	35	20	133	356	1.01	1.89
8	418	49	13	280	761	2.16	0.65
9	14511	1492	978	11386	28366	80.42	1.28
10	293	54	31	258	636	1.8	1.37
11	504	19	6	440	969	2.75	2.05
12	198	18	14	170	401	1.14	0.93
13	99	16	4	80	199	0.56	2.78
<b>TOTAL</b>	<b>17685</b>	<b>2052</b>	<b>1303</b>	<b>14233</b>	<b>35273</b>	<b>100</b>	<b>13</b>
<b>ESALS/LANE</b>	<b>50.1</b>	<b>5.8</b>	<b>3.7</b>	<b>40.4</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>
Apr 2017	916040	30535	2307	846831	92.4	69209.2	7.6	89	11
May 2017	934127	30133	2628	852671	91.3	81455.6	8.7	88.8	11.2
Jun 2017	974808	32494	2737	892683	91.6	82125	8.4	88.2	11.8
Jul 2017	975969	31483	2421	900904	92.3	75065.2	7.7	87.4	12.6
Aug 2017	1009074	32551	2616	927992	92	81081.8	8	88.3	11.7
Sep 2017	941075	31369	2573	863885	91.8	77190.3	8.2	89.1	10.9
Oct 2017	953108	30745	2606	872337	91.5	80770.9	8.5	89.1	10.9
Nov 2017	900902	30030	2391	829176	92	71725.8	8	89.1	10.9
Dec 2017	869439	28046	2065	805426	92.6	64013	7.4	88.2	11.8
Jan 2018	777133	25069	2126	711218	91.5	65915.4	8.5	87.3	12.7
Feb 2018	732422	26158	2134	672666	91.8	59756.2	8.2	89.1	10.9
Mar 2018	899645	29021	2200	831445	92.4	68199.7	7.6	90.2	9.8
<b>TOTAL</b>	<b>10883742</b>	<b>--</b>	<b>--</b>	<b>10007234</b>	<b>--</b>	<b>876508</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>AVERA GE</b>	<b>906978</b>	<b>29803</b>	<b>2400</b>	<b>833936</b>	<b>92</b>	<b>73042</b>	<b>8</b>	<b>89</b>	<b>11</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>
Apr 2017	19859	2559	1781	19840	44039	90	10	1
May 2017	24141	2918	2268	22434	51761	90	10	0.8
Jun 2017	25253	3633	2484	23058	54429	89	11	0.7
Jul 2017	22257	3831	2252	20033	48372	87	13	1.7
Aug 2017	23865	3536	2284	20897	50582	88	12	1.2
Sep 2017	20809	3103	2028	20608	46548	89	11	0.9
Oct 2017	22079	3110	1788	19884	46861	90	10	1.6
Nov 2017	19599	2736	1498	16531	40364	90	10	1.1
Dec 2017	14090	2504	1185	12527	30306	88	12	0.7
Jan 2018	15526	2839	1441	13237	33043	87	13	1.2
Feb 2018	14312	2062	1192	12404	29970	89	11	0.5
Mar 2018	17718	2055	1307	14249	35330	90	10	1.1
<b>TOTAL</b>	<b>239509</b>	<b>34886</b>	<b>21509</b>	<b>215701</b>	<b>511605</b>	--	--	--
<b>AVERAGE</b>	<b>19959</b>	<b>2907</b>	<b>1792</b>	<b>17975</b>	<b>42634</b>	<b>89</b>	<b>11</b>	<b>1</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>
Apr 2017	2084390	711458	548906	2059562	5404317
May 2017	1947717	627968	484577	1890136	4950397
Jun 2017	2337771	771441	616757	2244953	5970921
Jul 2017	2407097	840261	690672	2460459	6398489
Aug 2017	2583485	897754	768576	2719715	6969531
Sep 2017	2729883	967066	837227	2772666	7306842
Oct 2017	2582553	971563	803393	2647878	7005386
Nov 2017	2736287	998847	829406	2723748	7288288
Dec 2017	2534621	897107	740675	2614255	6786658
Jan 2018	2637284	907307	731619	2602728	6878938
Feb 2018	2414147	828796	668537	2357091	6268571
Mar 2018	2153551	784938	597727	2126715	5662931
<b>TOTAL</b>	<b>29148785</b>	<b>10204506</b>	<b>8318071</b>	<b>29219906</b>	<b>76891269</b>
<b>AVERAGE</b>	<b>2429065</b>	<b>850376</b>	<b>693173</b>	<b>2434992</b>	<b>6407606</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>
Apr 2017	2618	0.3	3.8	129	68
May 2017	3180	0.3	4	130	74
Jun 2017	3859	0.4	4.8	152	78
Jul 2017	3688	0.4	5	168	82
Aug 2017	3022	0.3	3.8	123	58
Sep 2017	2871	0.3	3.8	124	77
Oct 2017	2480	0.3	3.1	117	72
Nov 2017	1977	0.2	2.8	133	81
Dec 2017	868	0.1	1.4	61	38
Jan 2018	1147	0.1	1.8	65	41
Feb 2018	1037	0.1	1.7	50	26
Mar 2018	1066	0.1	1.6	70	34
<b>TOTAL</b>	<b>27813</b>	<b>--</b>	<b>--</b>	<b>1322</b>	<b>729</b>
<b>AVERAGE</b>	<b>2317.8</b>	<b>0.2</b>	<b>3.1</b>	<b>110.2</b>	<b>60.8</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>
Apr 2017	286481	271137	557617	51.4	48.6
May 2017	341584	324749	666333	51.3	48.7
Jun 2017	356293	327949	684242	52.1	47.9
Jul 2017	325024	283175	608199	53.4	46.6
Aug 2017	340556	296904	637460	53.4	46.6
Sep 2017	301806	300251	602057	50.1	49.9
Oct 2017	327015	290927	617942	52.9	47.1
Nov 2017	288577	242461	531038	54.3	45.7
Dec 2017	226392	195594	421986	53.6	46.4
Jan 2018	243904	210402	454307	53.7	46.3
Feb 2018	217781	187177	404958	53.8	46.2
Mar 2018	259219	219426	478646	54.2	45.8
<b>TOTAL</b>	<b>3514633</b>	<b>3150152</b>	<b>6664785</b>	--	--
<b>AVERAGE</b>	<b>292886.1</b>	<b>262512.7</b>	<b>555398.7</b>	<b>52.9</b>	<b>47.1</b>