

JULY 2018



**WIM #59/61  
I-90,  
MP 276.8  
DRESBACH,  
MN**

**MONTHLY  
REPORT**



*Your Destination...Our Priority*



## WIM Site Location

WIM #59 is located on I-90 near Dresbach in Winona county.

## System Operation

WIM #59 was operational for the entire month of July 2018. Volume was computed using all monthly data.

## System Calibration

WIM #59 was most recently calibrated on 2016-12-20. 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 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 <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: 821395 | Passenger Vehicles: 713718 | Heavy Commercial Vehicles: 107677

Monthly Average Daily Traffic (MADT): 26497 | Monthly Heavy Commercial Average Daily Traffic (MHCADT): 3473

See Table 2 for vehicle class breakdown

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

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

### Passenger Vehicles (PVs)

**Volume trends.** On an average 24-hour day (see Figure 5), EB PVs generally reached peak volume levels between 03 PM and 05 PM. Similarly, WB PVs peaked in volume between 02 PM and 04 PM

### Heavy Commercial Vehicles (HCVs)

**Volume trends.** On an average 24-hour day, HCVs traveling EB typically reached peak volume levels between 03 PM and 05 PM, while volume going WB peaked between 02 PM and 04 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 107677 HCVs, 22329 of them were overweight<sup>3</sup>. These overweight HCVs contributed to 2.8% of total monthly volume, and 21.4% of total monthly HCV volume. EB overweight vehicles typically reached highest numbers on Thursdays, with lowest volumes reported on Saturdays. WB overweight vehicles tended to reach highest volumes on Tuesdays, with lowest volumes reported on Sundays. See Figure 3 .

The top two overweight violators by class were the class 9 and class 4 vehicles . Overall, overweight vehicles tended to reach peak volume concentrations during typical business hours, with 76.1% of all overweight vehicles traveling WB 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 ,1811 EB vehicles exceeded 88,000 pounds (1697 vehicles were Class 9's; 54 vehicles were Class 10's). Of vehicles traveling WB,

4883 EB vehicles exceeded 88,000 pounds (4614 vehicles were Class 9's; 166 vehicles were Class 10's). Refer to Table 3 for the Top 10 highest recorded GVWs from Classes 9 and 10 from July 2018.

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

**Freight Totals.** A total of 1256175 tons of freight was recorded to have crossed the WIM. More freight was shipped WB (60.6%) than EB (39.4%). See Table 4 and Figure 11 for more freight information.

## Infrastructure Considerations

**Bridge.** Bridge No. 85802 and 85801 (Prestressed Beam Span) are approximately .02 miles east of WIM #59. Bridge No. 85849 and 85850 (Continuous Steel Beam Span) are approximately .3 miles west of WIM #59. WIM #59 recorded a total of 821395 vehicles with a combined GVW of 8828613 kips (1 kip = 1,000 pounds = 0.5 tons) in July 2018. See Table 5 and Figures 12-13 for GVW information by vehicle class and lane.

**Pavement Design.** A total of 125381 equivalent single axle loads (ESALs) passed over the pavement at this site. Approximately 65.2% of all ESALs were recorded WB while 34.8% was observed EB. In particular, 85% of all ESALs were generated by the Class 9's (Class 9's were also responsible for generating 52% 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).

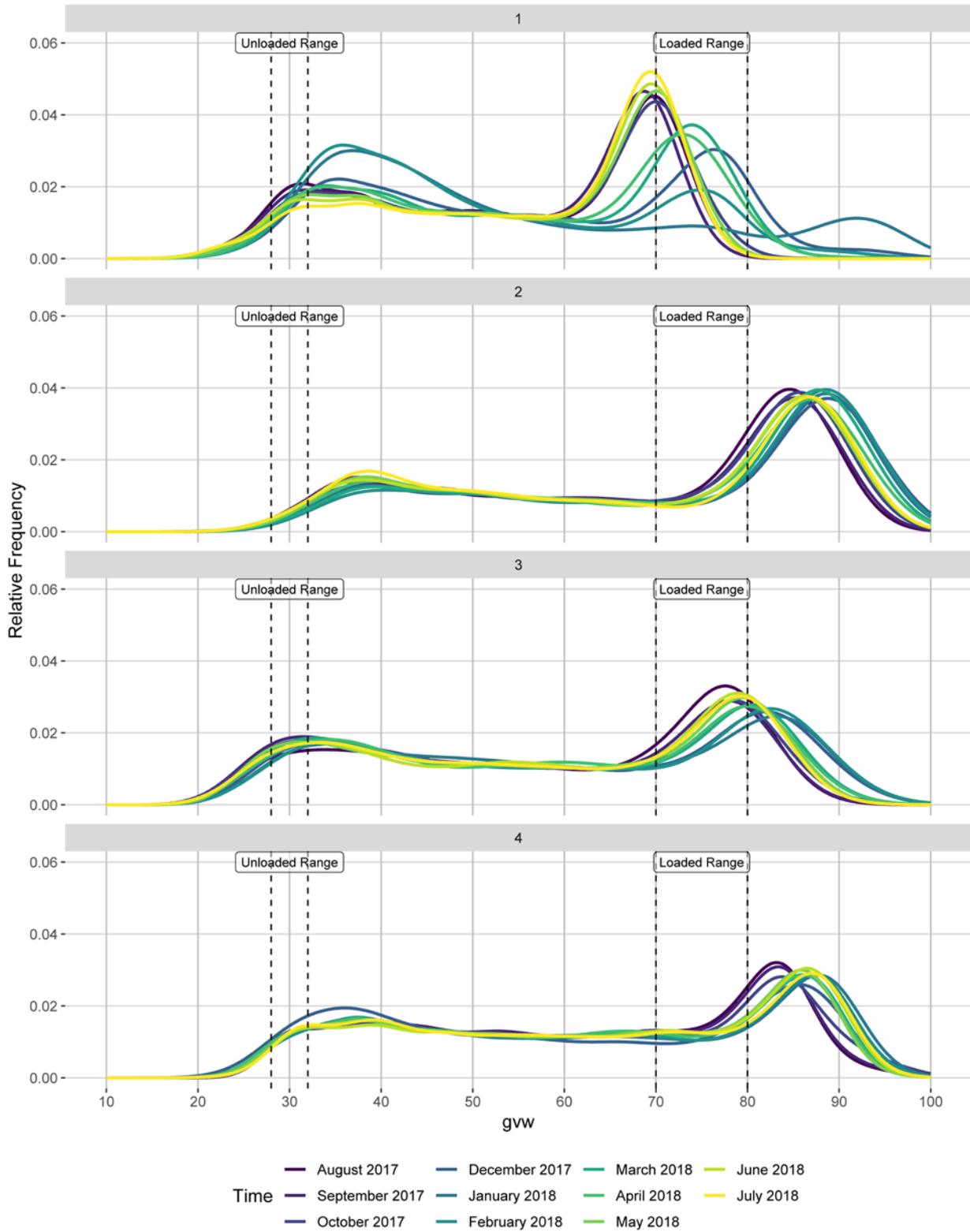
*WIM monthly reports can be found at: <http://www.dot.state.mn.us/traffic/data/reports-monthly-wim.html>*

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.

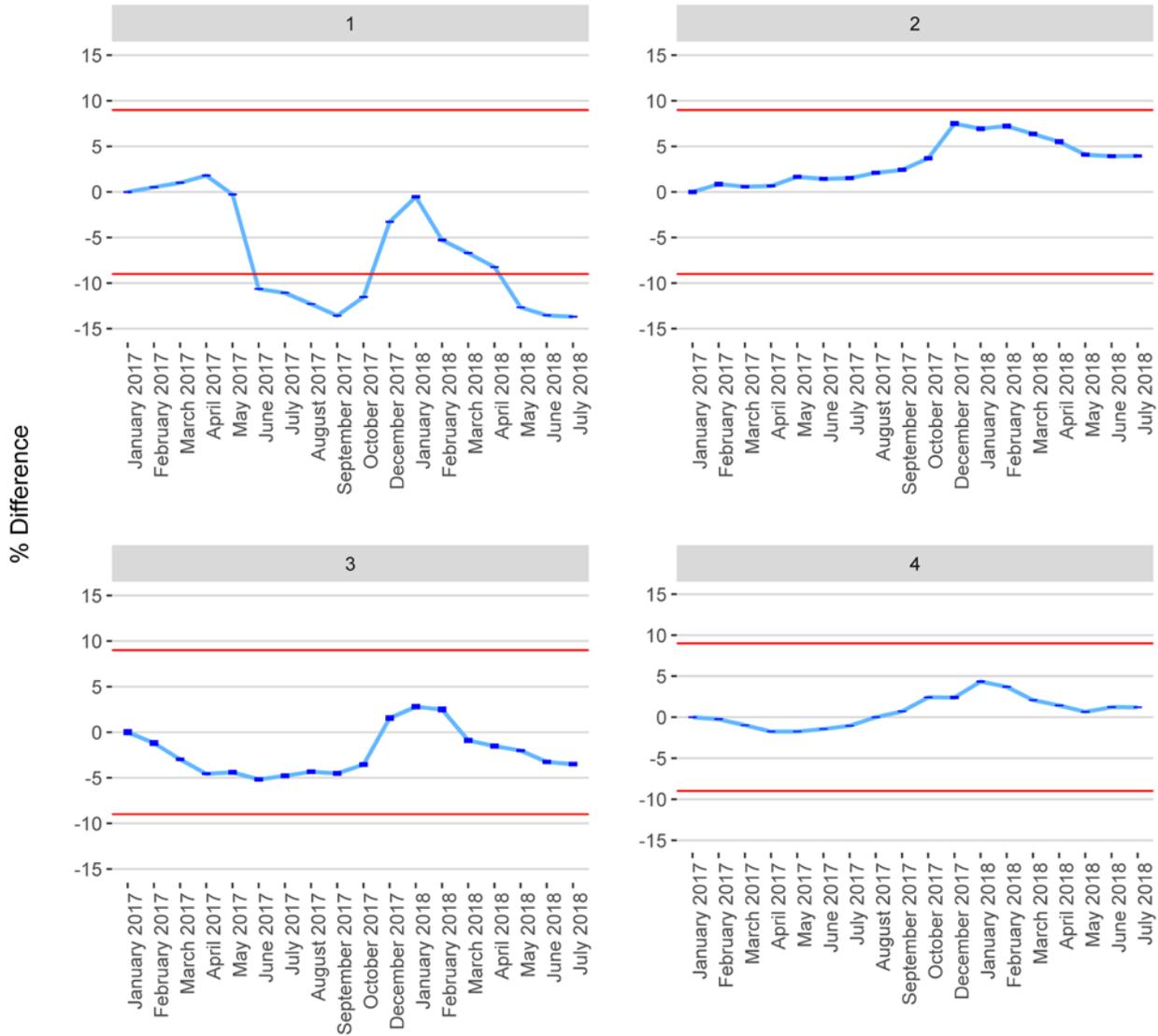
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Figure 1 - Monthly Class 9 GWW Histogram



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

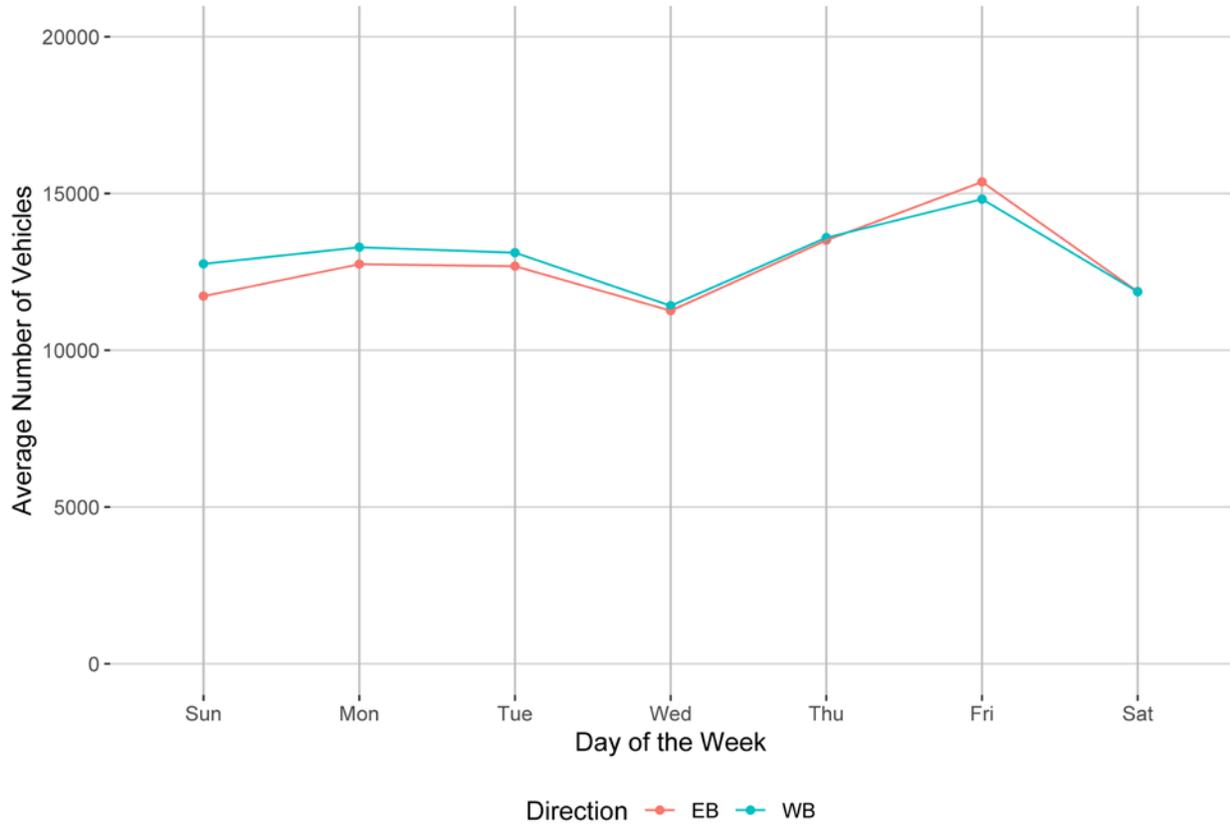


Figure 3 - Average Overweight Vehicle Volume vs. Day of the Week

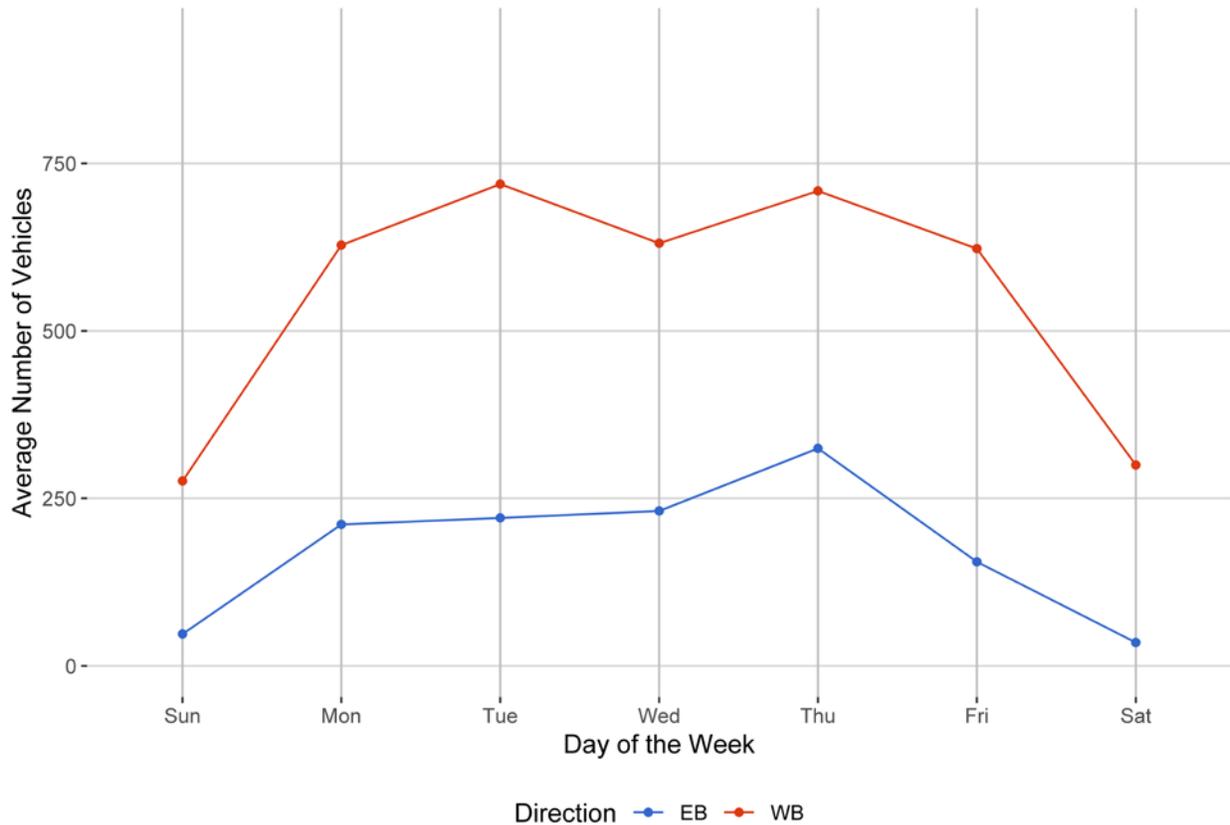


Figure 4 - Passenger Vehicles vs. Hour of the Day

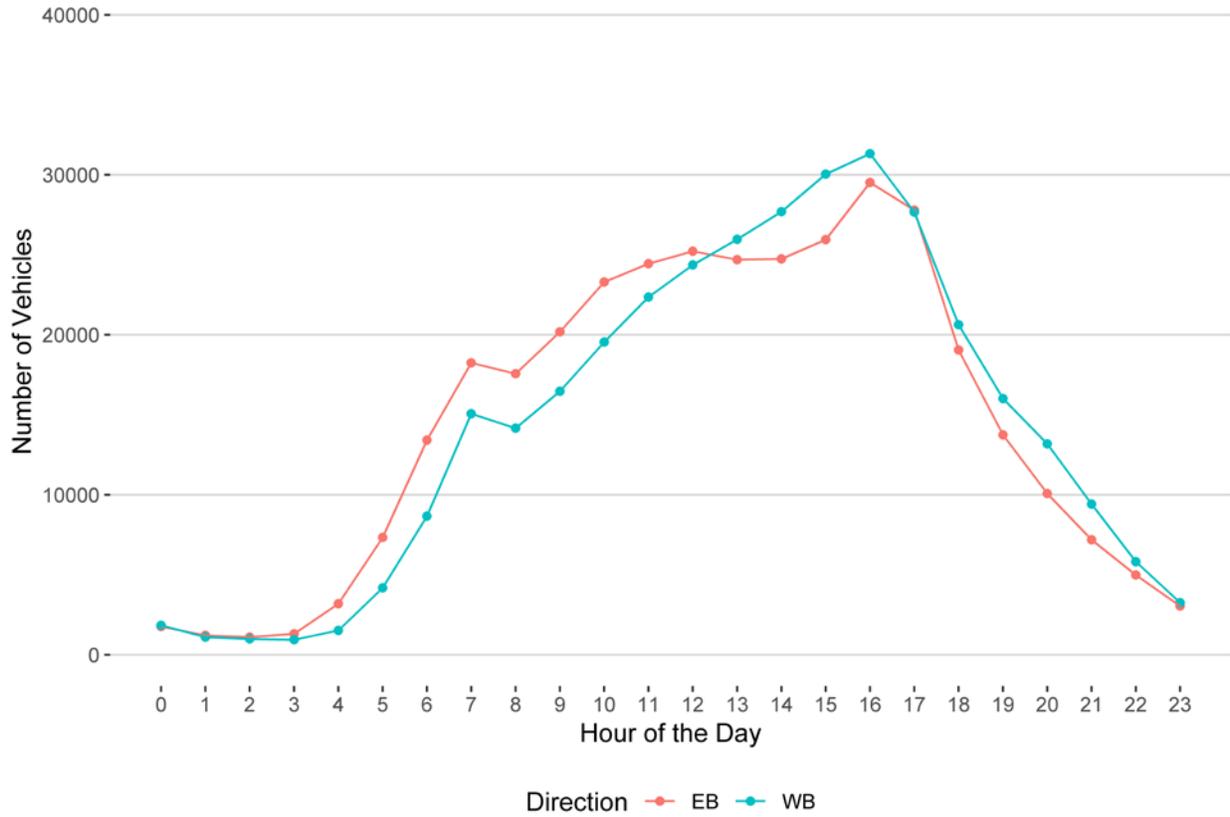


Figure 5 - Heavy Commercial Vehicles vs. Hour of the Day

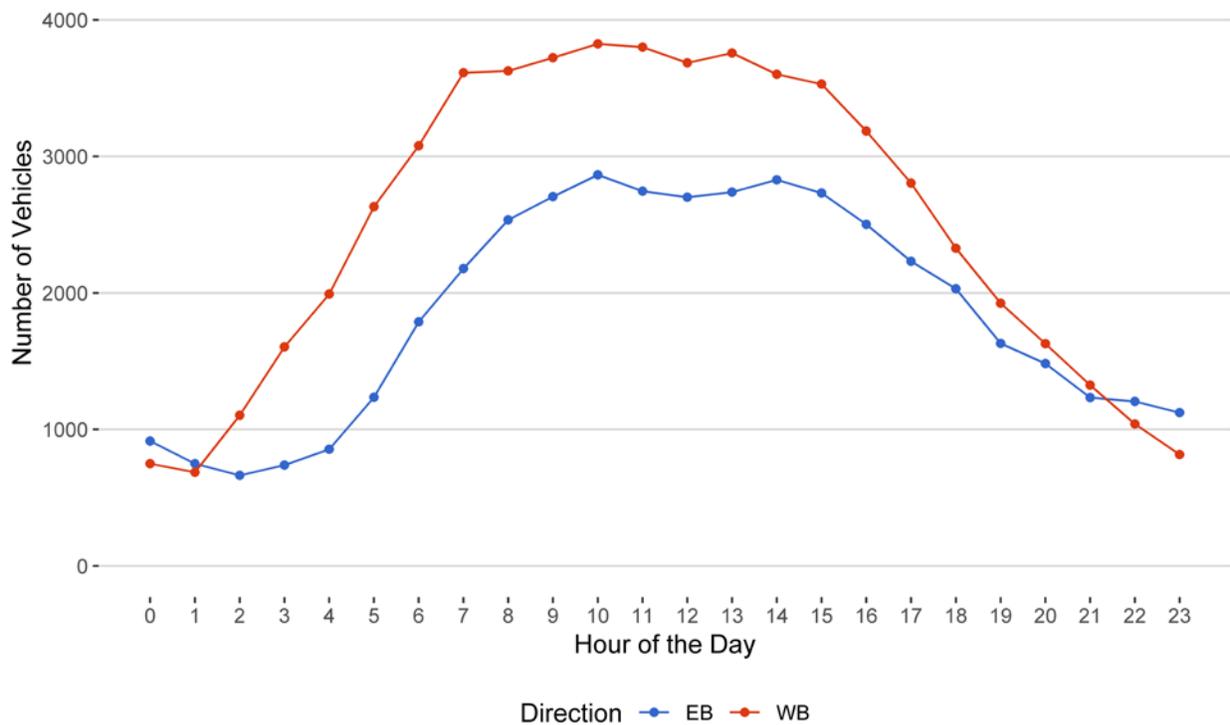


Figure 6 - Overweight Vehicles by Class vs. Hour of the Day

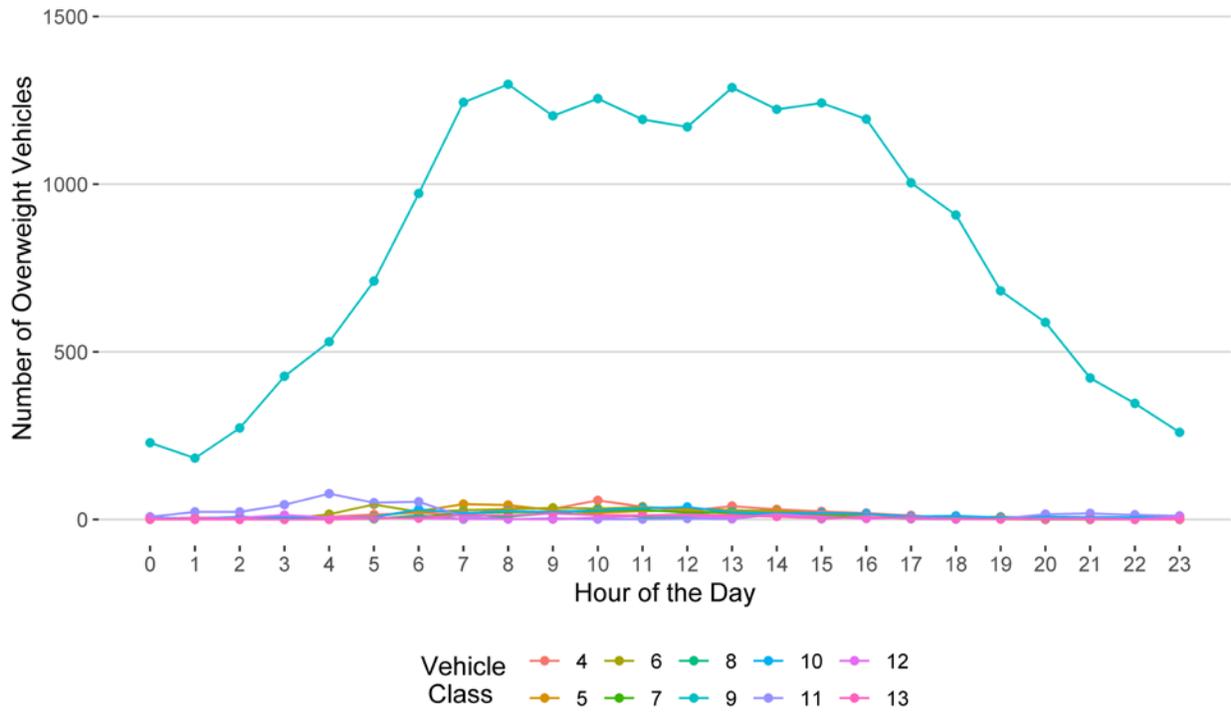


Figure 7 - Overweight Vehicles by Direction  
Hour of the Day

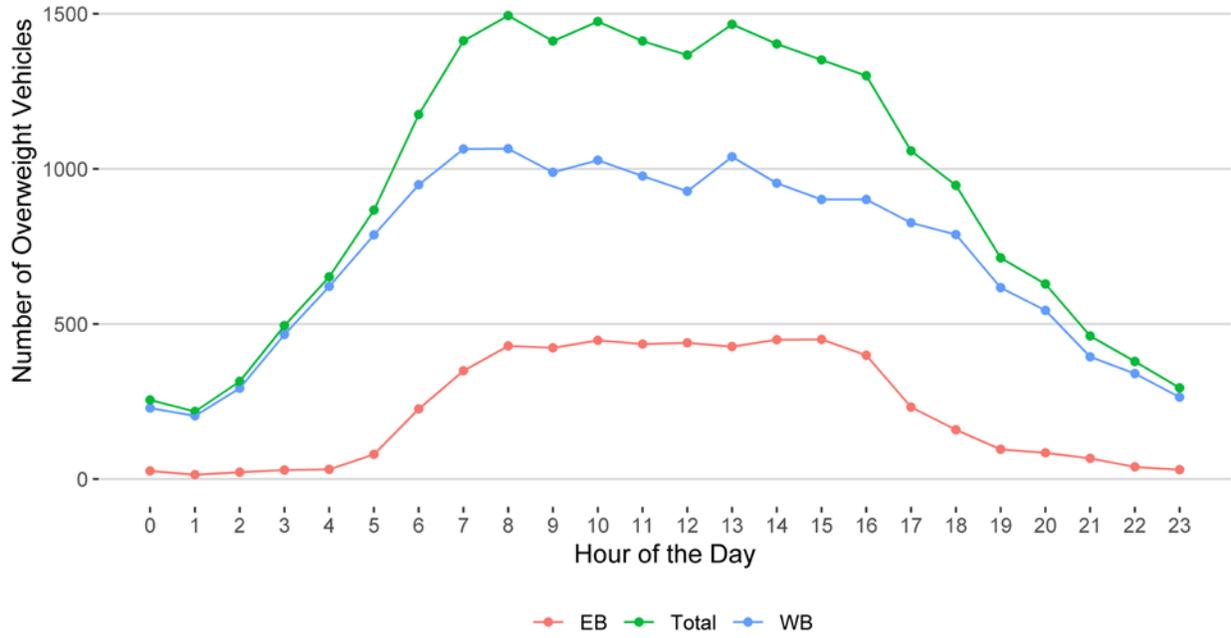
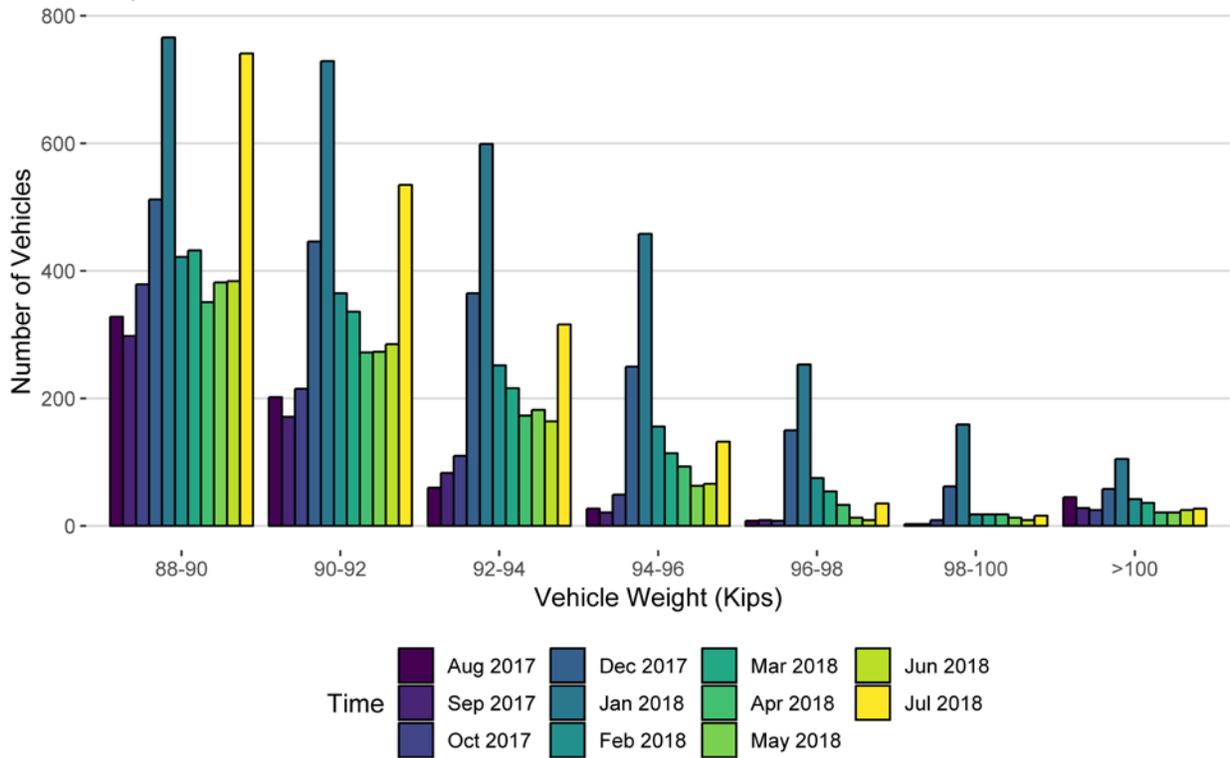
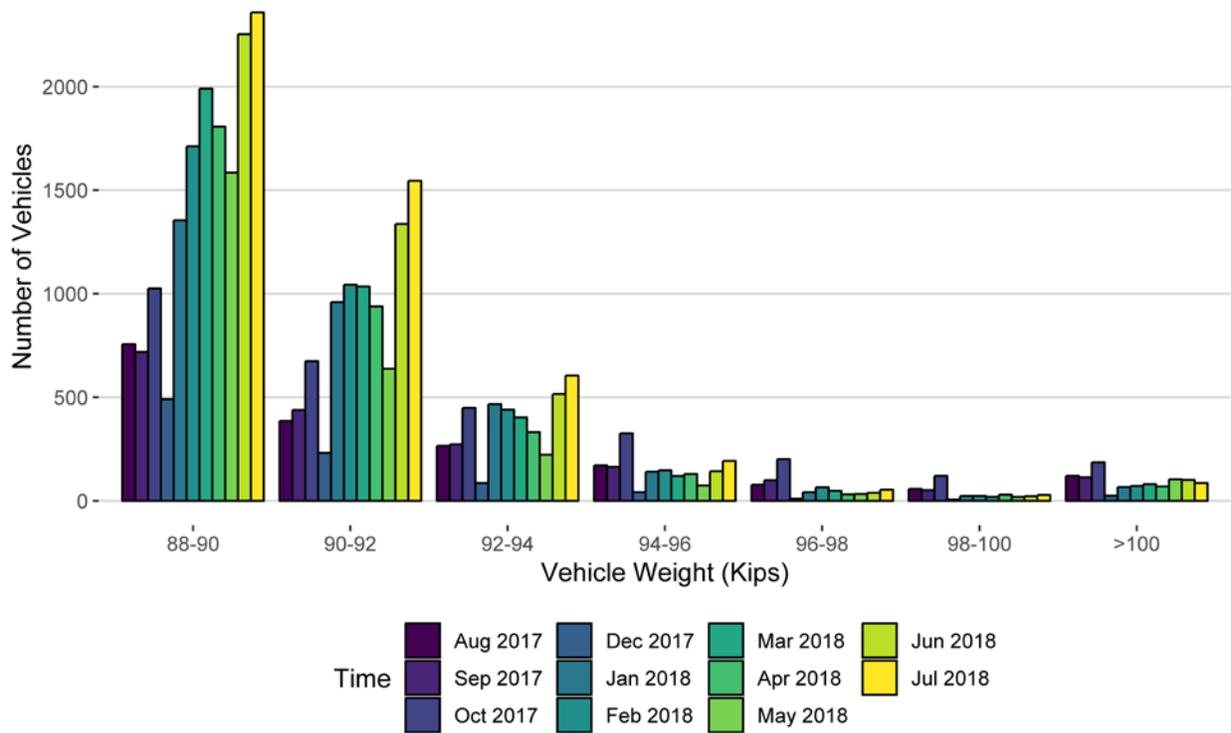


Figure 8 - Histogram of EB Vehicles Over 88,000 Pounds for Current Month



Vehicle Weights (Kips)	Aug 2017	Sep 2017	Oct 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018
88-90	328	298	379	512	766	422	432	351	382	384	741
90-92	202	171	215	446	729	365	336	272	273	285	535
92-94	60	83	110	365	599	252	216	173	182	164	316
94-96	27	21	49	250	458	156	114	93	63	66	132
96-98	8	9	8	150	253	75	54	33	13	9	35
98-100	3	3	9	62	159	18	18	18	13	9	16
>100	45	28	25	58	105	42	36	21	21	25	27
<b>Total</b>	<b>673</b>	<b>613</b>	<b>795</b>	<b>1843</b>	<b>3069</b>	<b>1330</b>	<b>1206</b>	<b>961</b>	<b>947</b>	<b>942</b>	<b>1802</b>

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



Vehicle Weights (Kips)	Aug 2017	Sep 2017	Oct 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018
88-90	757	719	1026	491	1355	1712	1991	1807	1585	2253	2358
90-92	386	439	675	232	960	1044	1035	939	638	1337	1545
92-94	266	273	449	86	467	440	403	332	223	516	605
94-96	172	164	326	42	141	148	120	130	74	143	193
96-98	78	100	202	11	42	65	49	32	33	39	54
98-100	58	52	121	7	24	24	20	30	20	23	29
>100	121	114	186	26	67	72	81	70	104	101	86
Total	1838	1861	2985	895	3056	3505	3699	3340	2677	4412	4870

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

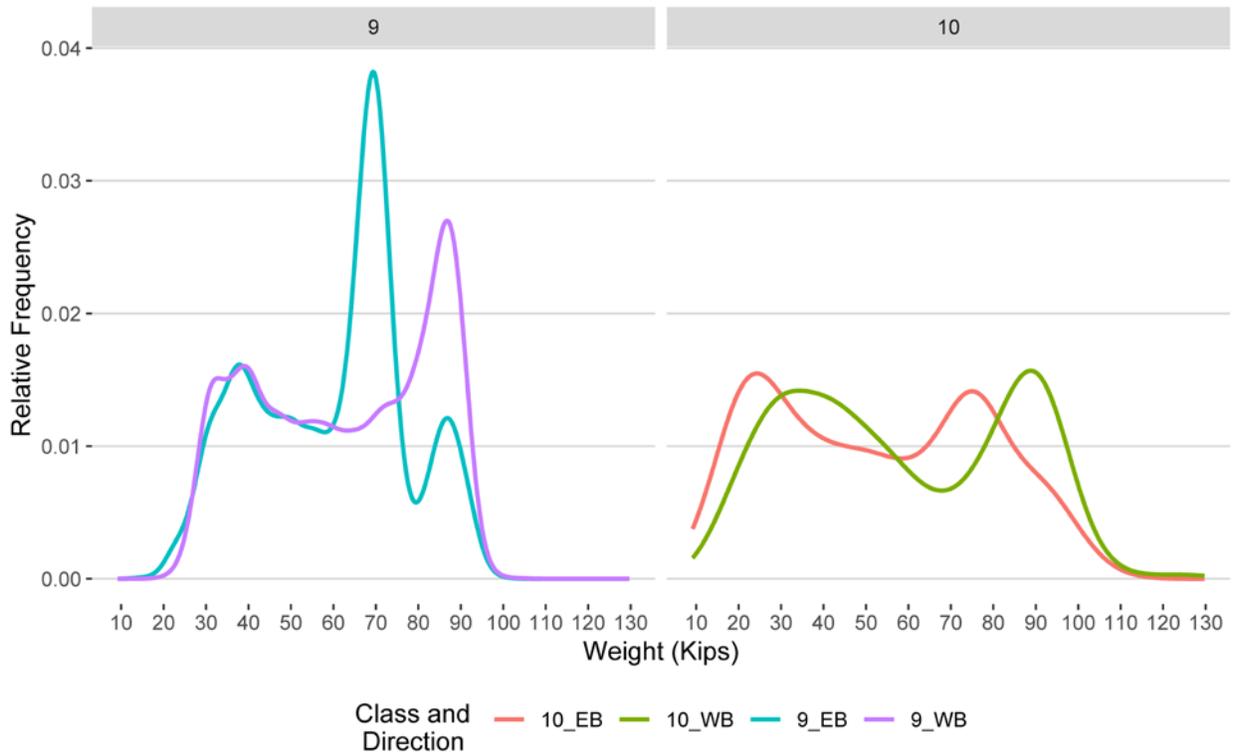


Figure 9 - Freight Percentage by Direction and Class

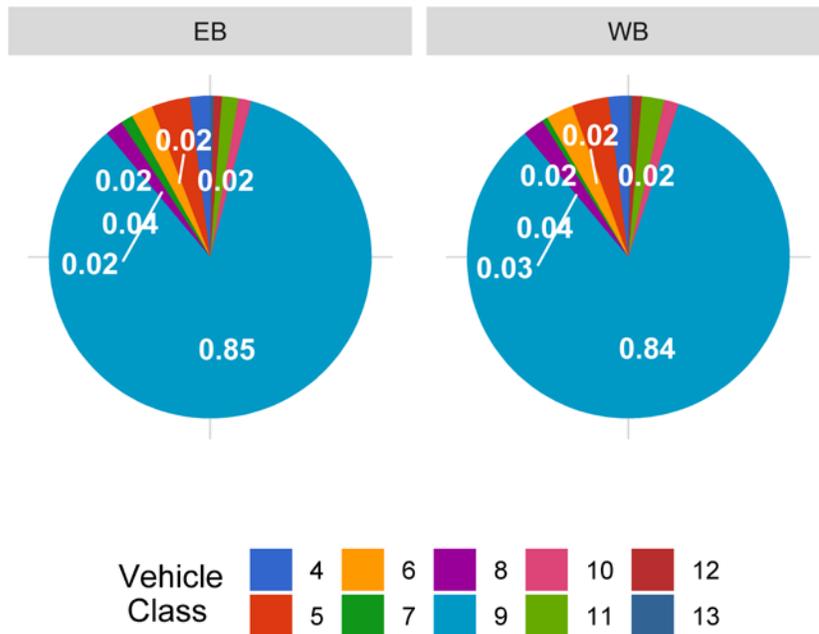


Figure 10 - Total Gross Vehicle Weight Percentage by Class and Lane

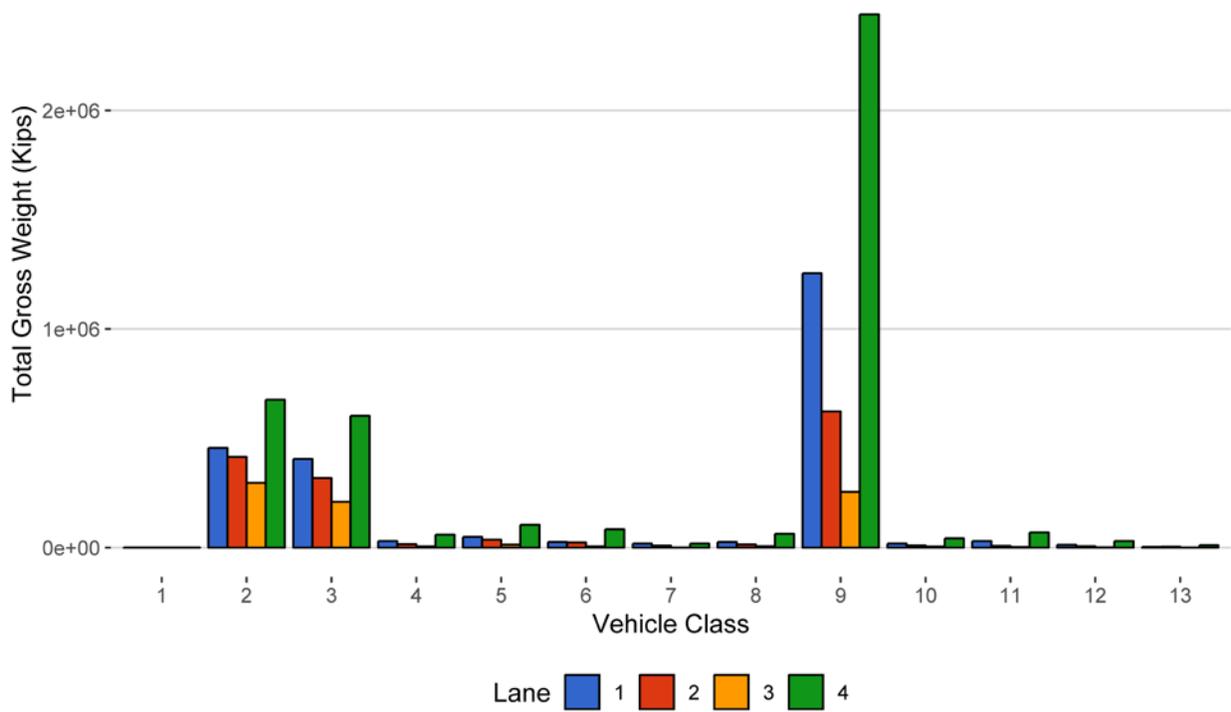


Figure 11 - Total Gross Vehicle Weight t

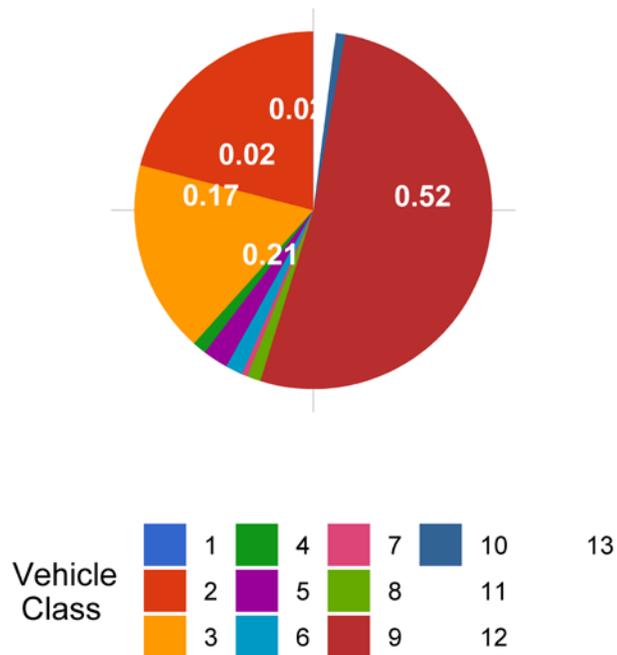


Figure 12 - Total ESALs by Class and Lane

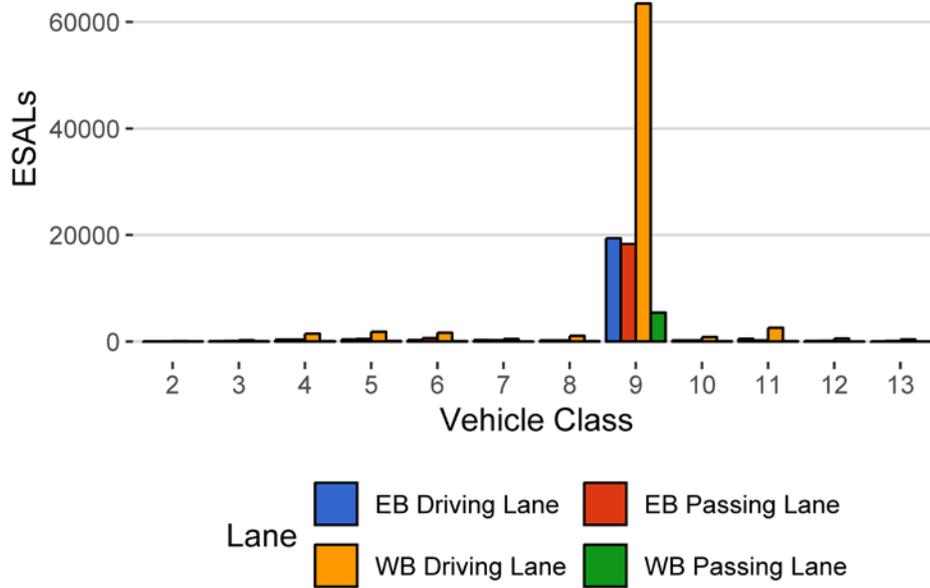
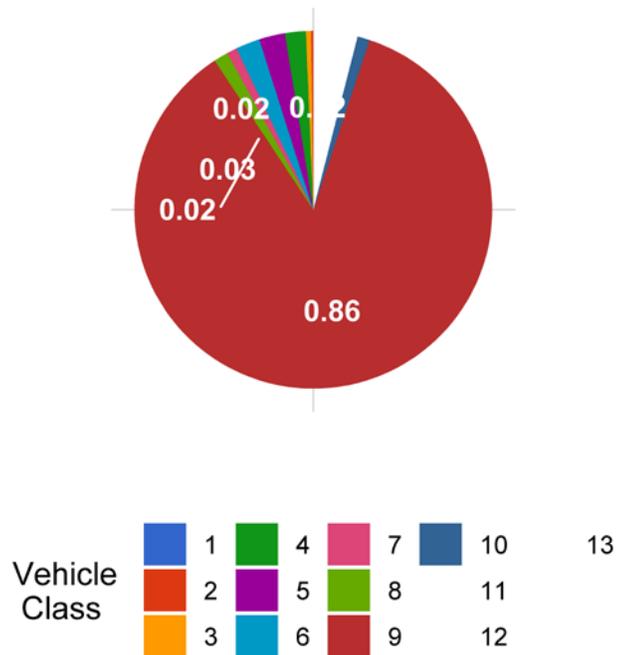


Figure 13 - ESALs by Class



**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>
January 2017	11.32	0.00	12.24	0.00	12.06	0.00	11.96	0.00
February 2017	11.38	0.53	12.34	0.86	11.92	-1.18	11.93	-0.24
March 2017	11.43	1.01	12.31	0.58	11.71	-2.97	11.84	-0.98
April 2017	11.52	1.80	12.32	0.66	11.52	-4.55	11.75	-1.74
May 2017	11.29	-0.29	12.44	1.67	11.53	-4.39	11.75	-1.74
June 2017	10.11	-10.64	12.42	1.43	11.44	-5.18	11.79	-1.43
July 2017	10.07	-11.07	12.43	1.51	11.49	-4.78	11.84	-1.04
August 2017	9.93	-12.30	12.50	2.10	11.54	-4.33	11.96	0.00
September 2017	9.78	-13.58	12.54	2.43	11.52	-4.51	12.04	0.71
October 2017	10.01	-11.53	12.69	3.70	11.64	-3.54	12.25	2.42
December 2017	10.95	-3.27	13.16	7.50	12.25	1.55	12.25	2.40
January 2018	11.26	-0.54	13.09	6.93	12.40	2.80	12.48	4.35
February 2018	10.72	-5.27	13.12	7.22	12.37	2.50	12.40	3.70
March 2018	10.56	-6.70	13.02	6.37	11.96	-0.89	12.21	2.08
April 2018	10.39	-8.25	12.91	5.51	11.88	-1.52	12.13	1.44
May 2018	9.89	-12.66	12.74	4.09	11.82	-2.00	12.04	0.66
June 2018	9.79	-13.53	12.72	3.92	11.67	-3.25	12.11	1.23
July 2018	9.77	-13.68	12.72	3.95	11.64	-3.50	12.10	1.21

**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	20	626	0.1	0	0
2	15039	466197	56.8	0	0
3	7964	246895	30.1	0	0
4	129	4006	0.5	407	1.8
5	455	14090	1.7	331	1.5
6	143	4419	0.5	369	1.7
7	26	794	0.1	214	1
8	113	3490	0.4	143	0.6
9	2475	76731	9.3	19847	88.9
10	44	1378	0.2	363	1.6
11	57	1768	0.2	390	1.7
12	26	795	0.1	129	0.6
13	7	207	0	136	0.6
<b>TOTAL</b>	<b>26497</b>	<b>821395</b>	<b>100</b>	<b>22329</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>
2018-07-18	Wednesday	08:58:06	10	WB	4	129.74
2018-07-30	Monday	11:50:24	10	WB	4	124.03
2018-07-05	Thursday	14:19:29	10	WB	4	123.99
2018-07-30	Monday	14:19:17	10	WB	4	121.76
2018-07-18	Wednesday	00:22:19	9	EB	2	114.85
2018-07-26	Thursday	18:28:06	10	WB	4	111.56
2018-07-29	Sunday	10:59:52	10	WB	4	110.71
2018-07-02	Monday	05:31:10	9	EB	2	110.43
2018-07-19	Thursday	16:45:43	10	EB	2	108.4
2018-07-13	Friday	20:11:35	10	WB	4	107.39

**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	EB	15	1737	247	14.2	41939	3171	9795
5	EB	8	6232	1098	17.6	77333	7559	18131
6	EB	19	1551	271	17.5	44005	4323	9843
7	EB	11.5	470	0	0	27405	0	11000
8	EB	31	1347	759	56.3	23231	16319	2501
9	EB	33	31474	2804	8.9	1797562	80247	425726
10	EB	33.5	538	168	31.2	24561	3877	6083
11	EB	36.5	665	72	10.8	34586	2155	6471
12	EB	36.5	312	13	4.2	18072	333	3579
13	EB	31.5	83	0	0	7271	0	2328
<b>TOTAL</b>	<b>****</b>	<b>****</b>	<b>44409</b>	<b>5432</b>	<b>****</b>	<b>2095967</b>	<b>****</b>	<b>495457</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	WB	15	2150	132	6.1	62362	1755	16046
5	WB	8	7438	416	5.6	114418	3006	29121
6	WB	19	2736	150	5.5	85702	2644	18284
7	WB	11.5	300	2	0.7	18481	22	7527
8	WB	31	2039	852	41.8	48895	19604	6049
9	WB	33	42969	3933	9.2	2577246	117238	644529
10	WB	33.5	799	181	22.7	42387	4626	10842
11	WB	36.5	1050	19	1.8	71565	516	16967
12	WB	36.5	459	4	0.9	31084	128	7238
13	WB	31.5	118	0	0	11948	0	4116
<b>TOTAL</b>	<b>****</b>	<b>****</b>	<b>60058</b>	<b>5689</b>	<b>****</b>	<b>3064088</b>	<b>****</b>	<b>760718</b>
<b>GRAND TOTAL</b>	<b>****</b>	<b>****</b>	<b>104467</b>	<b>11121</b>	<b>255</b>	<b>5160054</b>	<b>267522</b>	<b>1256175</b>

**Table 5 Gross Vehicle Weight by Class and Lane**

<i>Vehicle Class</i>	<i>EB Driving Lane</i>	<i>EB Passing Lane</i>	<i>WB Passing Lane</i>	<i>WB Driving Lane</i>	<i>Total</i>	<i>Percentage</i>
1	205	173	156	228	763	0
2	456094	414631	295890	675904	1842519	20.9
3	405576	317924	209599	603095	1536194	17.4
4	29584	15527	5681	58435	109227	1.2
5	49004	35888	12949	104475	202316	2.3
6	25074	23254	5125	83221	136675	1.6
7	18475	8930	499	18004	45908	0.5
8	25320	14229	5907	62592	108049	1.2
9	1255078	622730	254964	2439519	4572292	51.9
10	18480	9958	4782	42231	75451	0.9
11	29322	7418	2664	69417	108822	1.2
12	12182	6224	1477	29734	49617	0.6
13	3520	3752	720	11228	19219	0.2
<b>TOTAL</b>	<b>2327915</b>	<b>1480639</b>	<b>800414</b>	<b>4198084</b>	<b>8807052</b>	<b>100</b>
<b>GVW/LANE</b>	<b>26.43</b>	<b>16.81</b>	<b>9.09</b>	<b>47.67</b>	<b>100</b>	<b>0</b>

**Table 6 ESALs by Class and Lane and Flexible ESAL Factors**

<i>Vehicle Class</i>	<i>EB Driving Lane</i>	<i>EB Passing Lane</i>	<i>WB Passing Lane</i>	<i>WB Driving Lane</i>	<i>Total</i>	<i>Percentage</i>	<i>Flexible ESAL Factor</i>
1	0	0	0	0	0	0	0.0016
2	36	62	43	92	233	0.19	0.001
3	98	138	88	274	598	0.48	0.005
4	372	376	98	1497	2343	1.88	1.21
5	413	503	134	1863	2913	2.34	0.43
6	292	673	88	1670	2723	2.19	1.27
7	320	275	13	533	1141	0.92	2.95
8	242	236	72	1076	1626	1.31	0.96
9	19395	18324	5439	63435	106594	85.6	2.86
10	213	224	84	878	1400	1.12	2.09
11	544	228	87	2602	3460	2.78	4.02
12	121	146	21	602	890	0.71	2.29
13	59	108	15	420	602	0.48	5.69
<b>TOTAL</b>	<b>22105</b>	<b>21293</b>	<b>6182</b>	<b>74943</b>	<b>124523</b>	<b>100</b>	<b>24</b>
<b>ESALS/LANE</b>	<b>17.8</b>	<b>17.1</b>	<b>5</b>	<b>60.2</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>
Aug 2017	804859	25963	3913	683559	84.9	121300.1	15.1	88.2	11.8
Sep 2017	726392	24213	3236	629322	86.6	97070.4	13.4	87.1	12.9
Oct 2017	719949	23224	2883	630576	87.6	89373.1	12.4	84.9	15.1
Dec 2017	608685	19635	1976	547421	89.9	61264.3	10.1	81.9	18.1
Jan 2018	545214	17588	1886	486743	89.3	58471.1	10.7	80.9	19.1
Feb 2018	519118	18540	2213	457150	88.1	61967.9	11.9	84.8	15.2
Mar 2018	672594	21697	3246	571963	85	100631.3	15	89.4	10.6
Apr 2018	637163	21239	3266	539170	84.6	97993.1	15.4	89.6	10.4
May 2018	783270	25267	3420	677254	86.5	106015.6	13.5	78.4	21.6
Jun 2018	800330	26678	3577	693025	86.6	107305.3	13.4	86.5	13.5
Jul 2018	821395	26497	3473	713718	86.9	107677.3	13.1	81.1	18.9
<b>TOTAL</b>	<b>7638969</b>	<b>-</b>	<b>-</b>	<b>6629901</b>	<b>-</b>	<b>1009069</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>AVERAGE</b>	<b>694452</b>	<b>22776</b>	<b>3008</b>	<b>602718</b>	<b>87</b>	<b>91734</b>	<b>13</b>	<b>85</b>	<b>15</b>

## ESALS

<i>Month</i>	<i>ESALS EB Passing Lane</i>	<i>ESALS EB Driving Lane</i>	<i>ESALS WB Driving Lane</i>	<i>ESALS WB Passing Lane</i>	<i>Total ESALS</i>	<i>Driving Lane ESALS %</i>	<i>Passing Lane ESALS %</i>	<i>Pavement Life Decrease Months</i>
Aug 2017	33618	11934	5771	69776	121098	85	15	12.8
Sep 2017	21056	9854	4941	62745	98597	85	15	14.4
Oct 2017	17870	10341	5631	60500	94342	83	17	25.9
Dec 2017	32042	9829	5415	21039	68325	78	22	11.1
Jan 2018	19672	10910	5796	35694	72073	77	23	37.1
Feb 2018	11994	9787	5059	45812	72652	80	20	31.6
Mar 2018	36022	10271	5273	66550	118116	87	13	23.4
Apr 2018	33699	9080	5070	64198	112047	87	13	21.8
May 2018	29208	11691	15636	54301	110836	75	25	19.8
Jun 2018	26617	11629	6817	75040	120104	85	15	25.1
Jul 2018	22121	21567	6194	75499	125381	78	22	27.2
<b>TOTAL</b>	<b>283919</b>	<b>126893</b>	<b>71605</b>	<b>631153</b>	<b>1113571</b>	-	-	-
<b>AVERAGE</b>	<b>25811</b>	<b>11536</b>	<b>6510</b>	<b>57378</b>	<b>101234</b>	<b>82</b>	<b>18</b>	<b>23</b>

## Gross Vehicle Weight

<i>Month</i>	<i>GVW EB Passing Lane</i>	<i>GVW EB Driving Lane</i>	<i>GVW WB Passing Lane</i>	<i>GVW WB Driving Lane</i>	<i>Total GVW Kips</i>
Aug 2017	1766773	670355	515044	1948965	4901137
Sep 2017	1548618	606656	457410	2455684	5068368
Oct 2017	2931469	759060	586267	3650504	7927301
Dec 2017	2785677	692032	555620	3520002	7553332
Jan 2018	2870338	936643	1392451	3125714	8325147
Feb 2018	2735684	971481	814055	4101668	8622887
Mar 2018	2329986	1486733	800733	4211161	8828613
Apr 2018	3303649	990874	745014	4084406	9123942
May 2018	2281938	844722	639059	3699998	7465716
Jun 2018	1844438	851013	680855	3359518	6735824
Jul 2018	2602727	725139	571128	1034431	4933426
<b>TOTAL</b>	<b>27001298</b>	<b>9534708</b>	<b>7757636</b>	<b>35192051</b>	<b>79485693</b>
<b>AVERAGE</b>	<b>2454663</b>	<b>866792</b>	<b>705240</b>	<b>3199277</b>	<b>7225972</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>
Aug 2017	19320	2.5	16.3	2517	230
Sep 2017	16680	2.4	17.8	2488	208
Oct 2017	16692	2.6	19.2	3826	354
Dec 2017	10576	2	15.9	2771	163
Jan 2018	14410	2.9	22.6	6149	364
Feb 2018	14486	3	22.6	4842	158
Mar 2018	20928	3.2	21	4910	155
Apr 2018	19693	3.2	20.4	4310	139
May 2018	17911	2.4	17.4	3625	158
Jun 2018	20657	2.7	19.7	5370	158
Jul 2018	22551	2.8	21.5	6694	165
<b>TOTAL</b>	<b>193904</b>	<b>-</b>	<b>-</b>	<b>47502</b>	<b>2252</b>
<b>AVERAGE</b>	<b>17627.6</b>	<b>2.7</b>	<b>19.5</b>	<b>4318.4</b>	<b>204.7</b>

## Freight

<i>Month</i>	<i>EB Freight Tons</i>	<i>WB Freight Tons</i>	<i>Total Freight</i>	<i>EB Freight %</i>	<i>WB Freight %</i>
Aug 2017	575347	742535	1317881	43.7	56.3
Sep 2017	391097	664771	1055867	37	63
Oct 2017	337732	622525	960257	35.2	64.8
Dec 2017	444244	175532	619776	71.7	28.3
Jan 2018	278786	364384	643170	43.3	56.7
Feb 2018	224800	462615	687414	32.7	67.3
Mar 2018	524835	672213	1197049	43.8	56.2
Apr 2018	492972	651293	1144265	43.1	56.9
May 2018	502366	672478	1174845	42.8	57.2
Jun 2018	469192	765620	1234812	38	62
Jul 2018	495457	760718	1256175	39.4	60.6
<b>TOTAL</b>	<b>4736828</b>	<b>6554684</b>	<b>11291512</b>	-	-
<b>AVERAGE</b>	<b>430620.7</b>	<b>595880.3</b>	<b>1026501.1</b>	<b>42.8</b>	<b>57.2</b>