

SEPTEMBER 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 September 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. 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: 637170 | Passenger Vehicles: 546979 | Heavy Commercial Vehicles: 90191

Monthly Average Daily Traffic (MADT): 21239 | Monthly Heavy Commercial Average Daily Traffic (MHCADT): 3006

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 Tuesdays. WB vehicles typically reached highest volume levels on Fridays, with lowest volumes reported on Tuesdays (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 03 PM and 05 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 03 PM and 05 PM. See Figure 6. Out of all HCVs, the two highest traffic volumes were generated by Class 9's and Class 5's.

## Overweight HCVs

**Volume trends.** Of a total of 90191 HCVs, 26542 of them were overweight<sup>3</sup>. These overweight HCVs contributed to 4.4% of total monthly volume, and 30.5% 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 Thursdays, with lowest volumes reported on Sundays. See Figure 3 .

The top two overweight violators by class were the class 9 and class 11 vehicles . Overall, overweight vehicles tended to reach peak volume concentrations during typical business hours, with 63.9% 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 September.

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 ,2111 EB vehicles exceeded 88,000 pounds (1957 vehicles were Class 9's; 74 vehicles were Class 10's). Of vehicles traveling WB,

6096 EB vehicles exceeded 88,000 pounds (5783 vehicles were Class 9's; 167 vehicles were Class 10's). Refer to Table 3 for the Top 10 highest recorded GVWs from Classes 9 and 10 from September 2018.

**Loaded vs. Unloaded HCVs.** Figure 10 shows the GVW distributions of Class 9s and 10s in September 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 empty Class 10's than fully\_loaded traveling in the EB direction. In the WB direction, there were more empty class 10 vehicles.

**Freight Totals.** A total of 1153778 tons of freight was recorded to have crossed the WIM. More freight was shipped WB (65.1%) than EB (34.9%). 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 637170 vehicles with a combined GVW of 7525580 kips (1 kip = 1,000 pounds = 0.5 tons) in September 2018. See Table 5 and Figures 12-13 for GVW information by vehicle class and lane.

**Pavement Design.** A total of 125306 equivalent single axle loads (ESALs) passed over the pavement at this site. Approximately 66.1% of all ESALs were recorded WB while 33.9% was observed EB. In particular, 84% of all ESALs were generated by the Class 9's (Class 9's were also responsible for generating 53% 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).

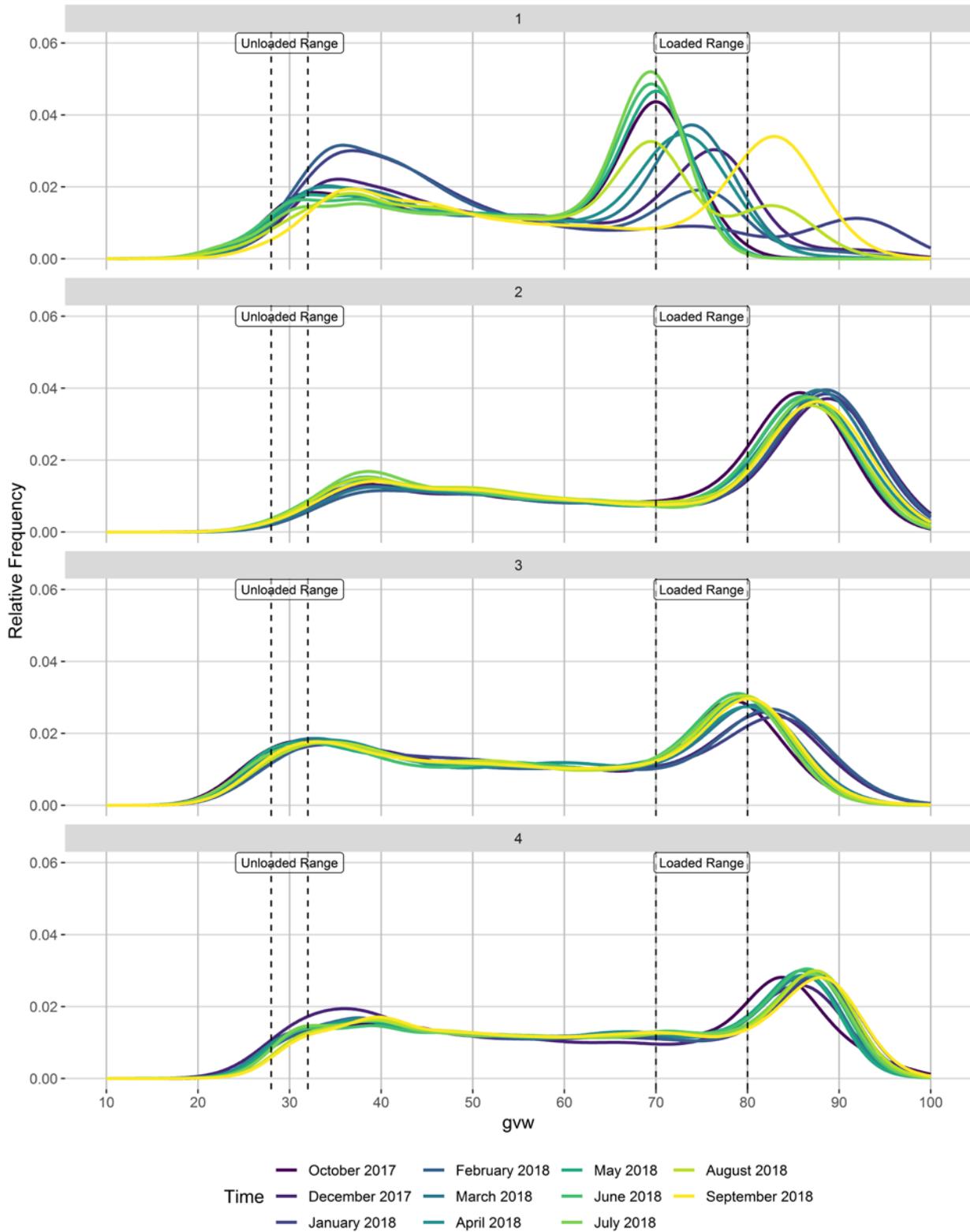
*WIM monthly reports can be found at: <http://www.dot.state.mn.us/traffic/data/reports-monthly-wim.html>*

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.

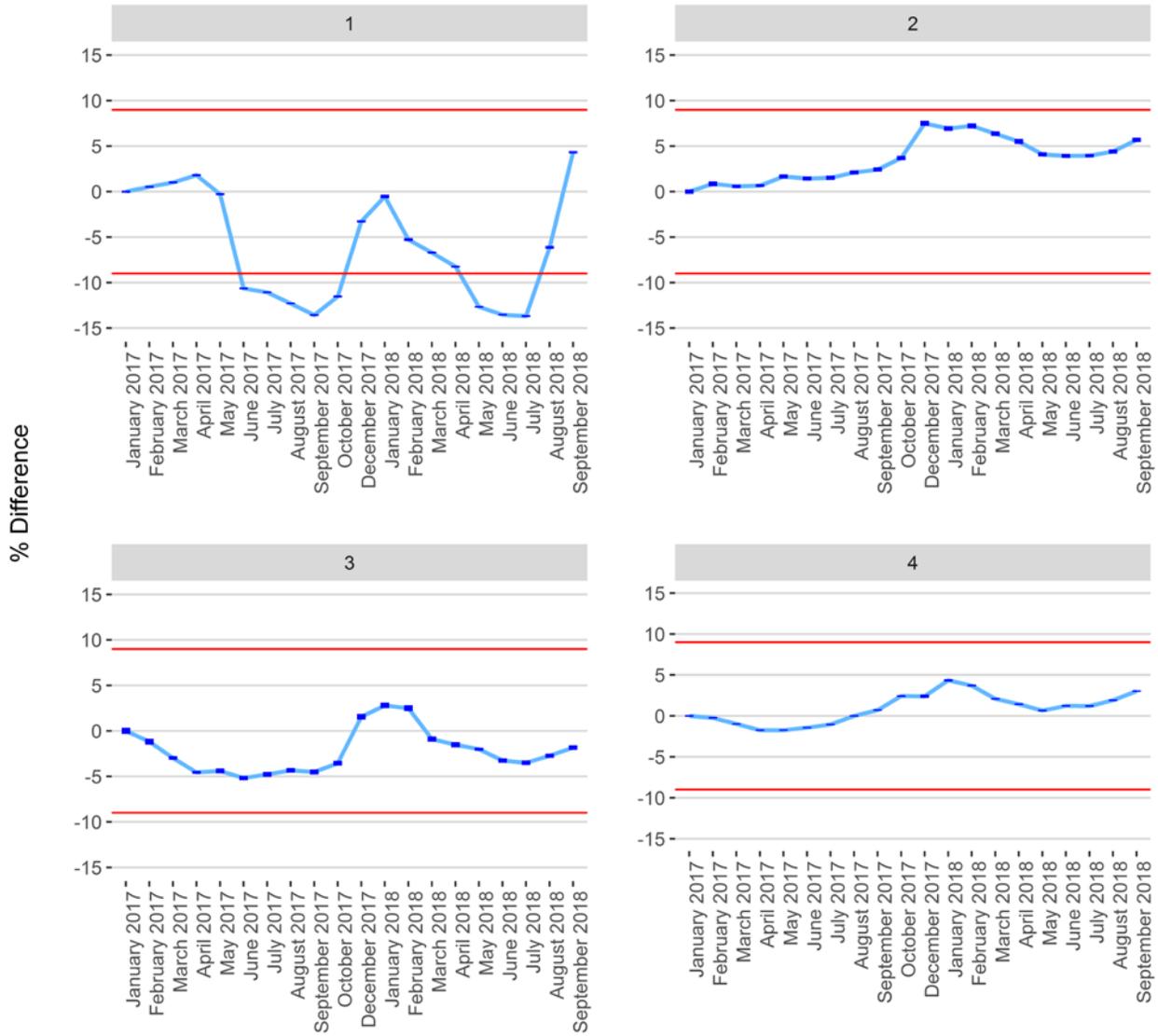
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Figure 1 - Monthly Class 9 GVW Histogram



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

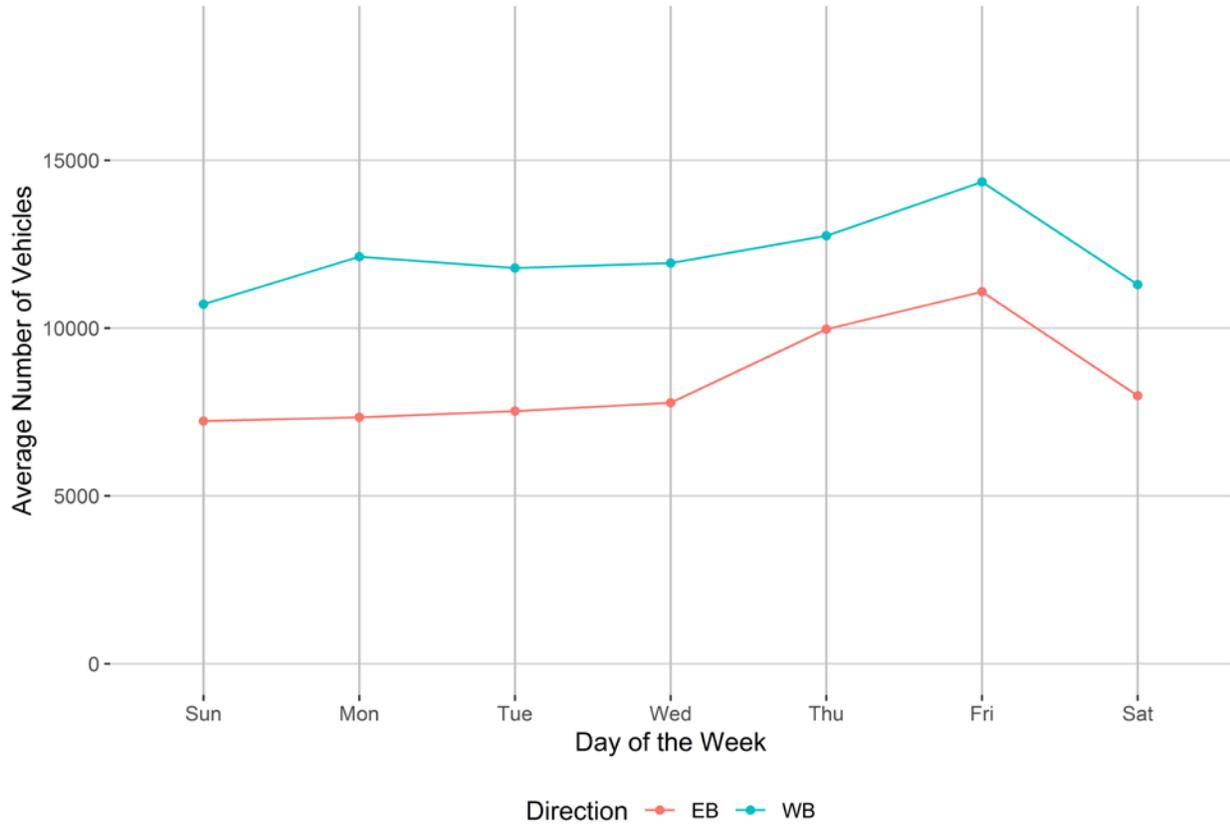


Figure 3 - Average Overweight Vehicle Volume vs. Day of the Week

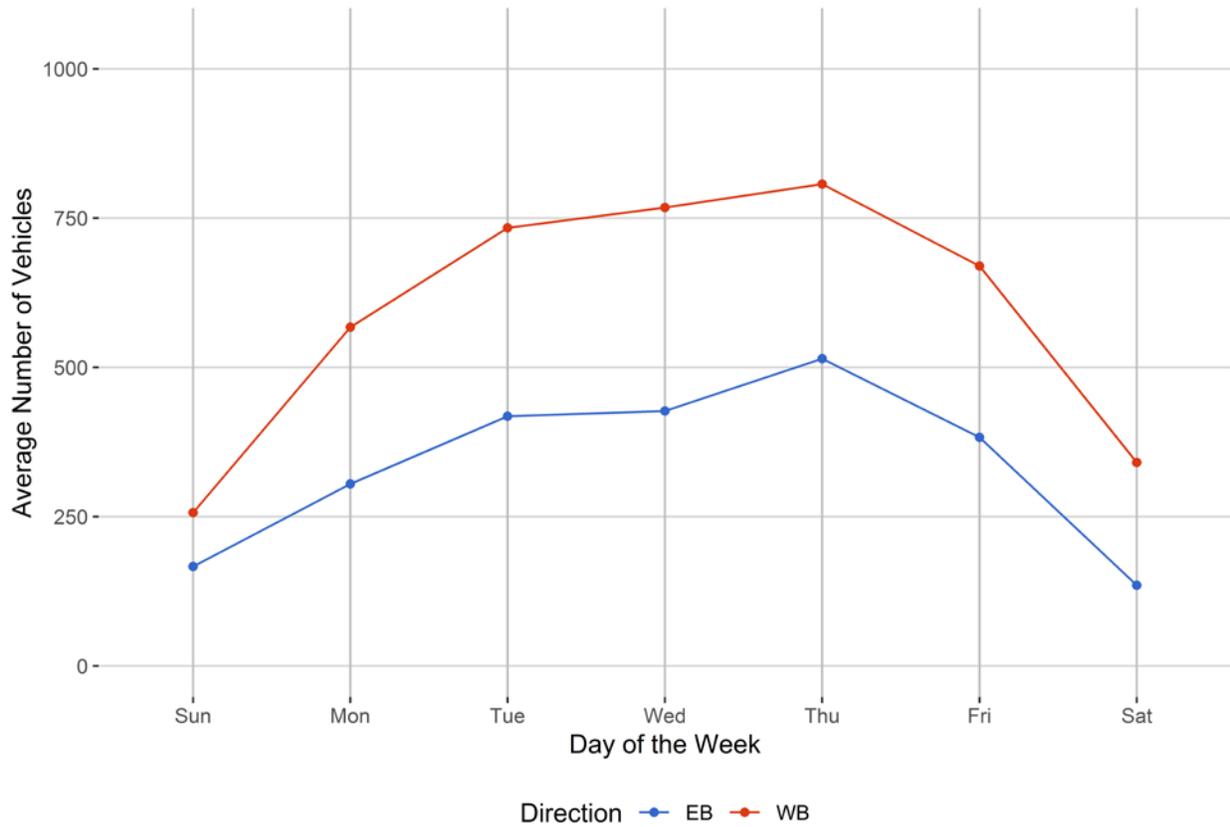


Figure 4 - Passenger Vehicles vs. Hour of the Day

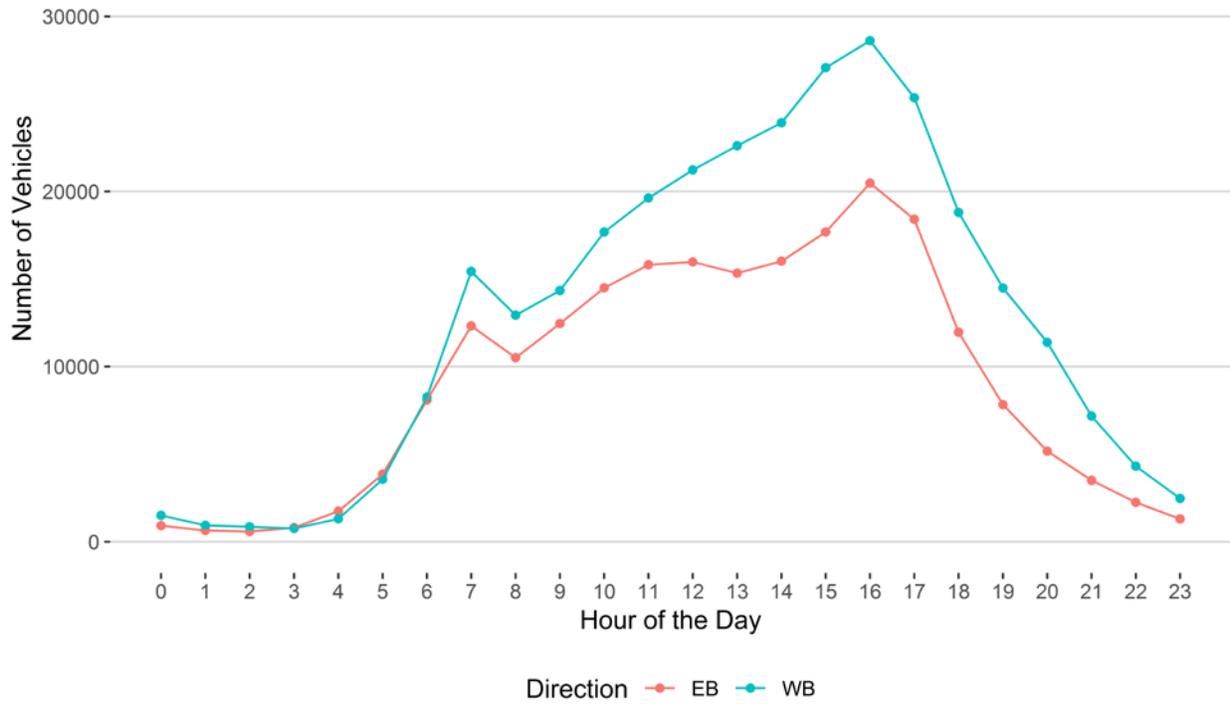


Figure 5 - Heavy Commercial Vehicles vs. Hour of the Day

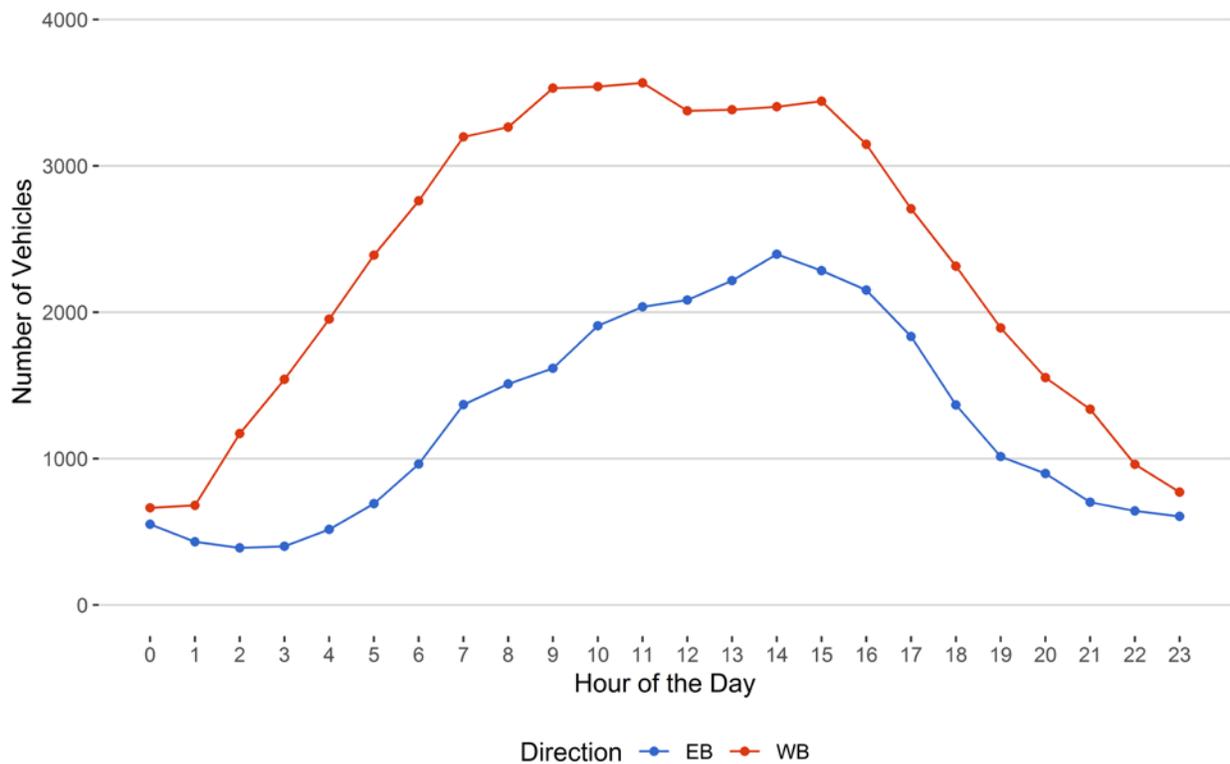


Figure 6 - Overweight Vehicles by Class vs. Hour of the Day

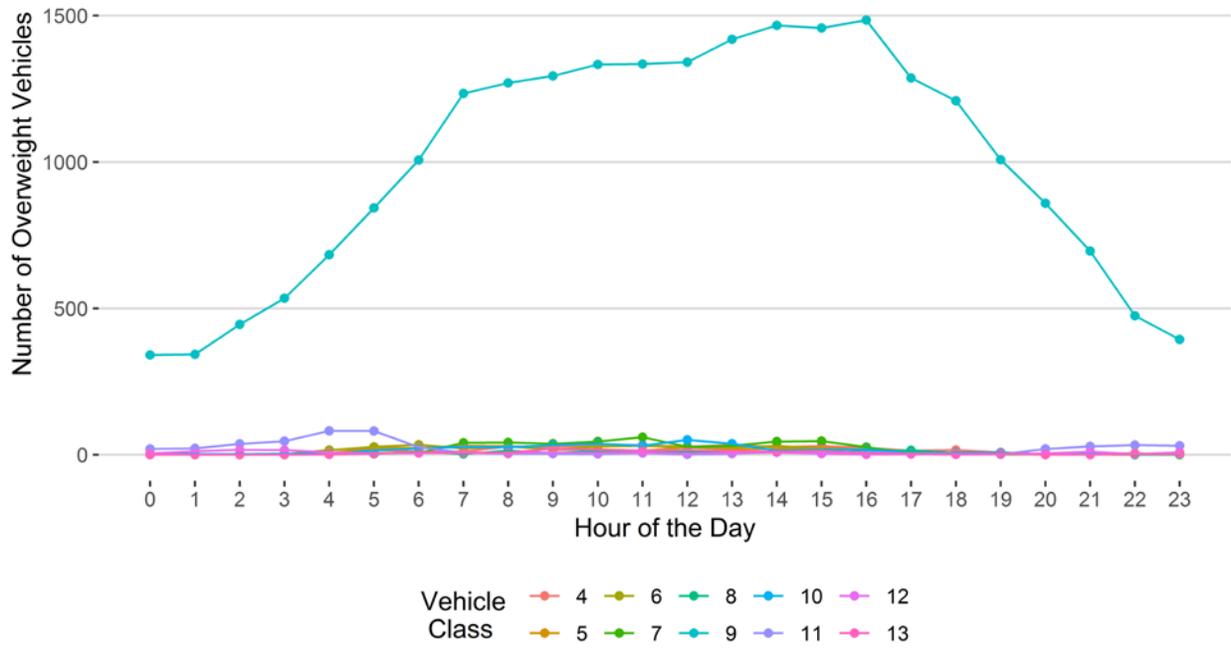


Figure 7 - Overweight Vehicles by Direction  
Hour of the Day

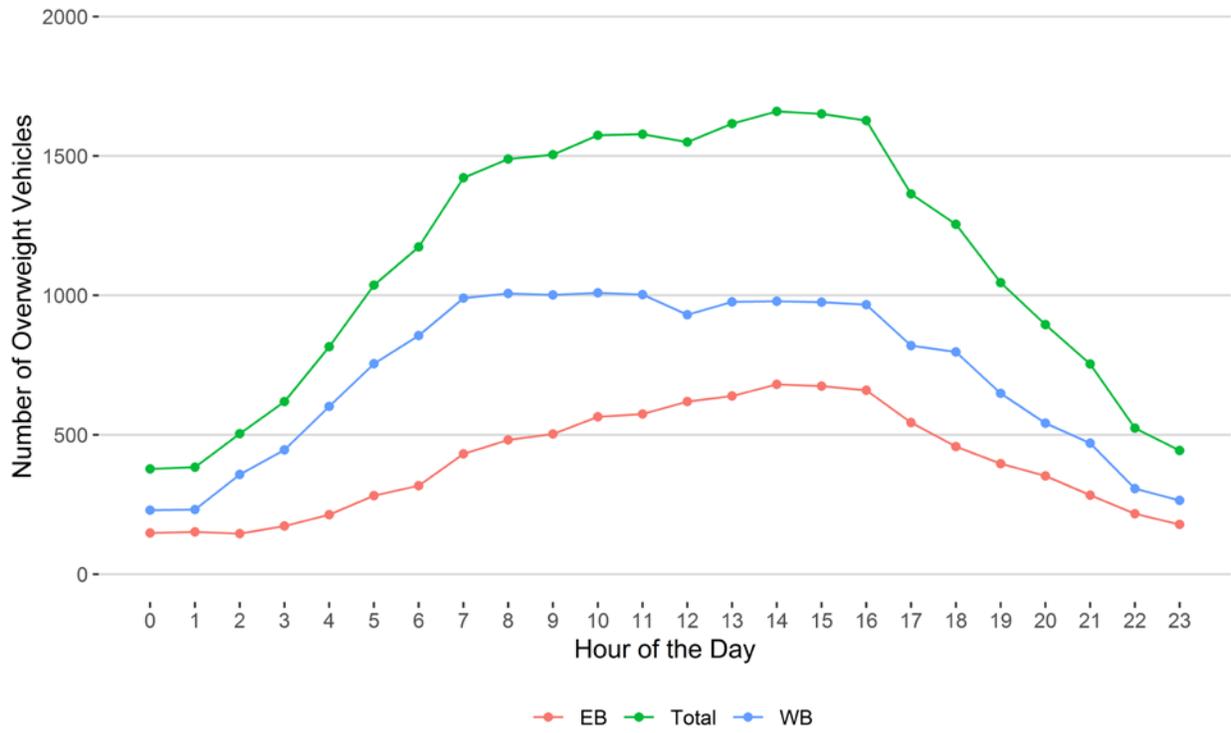
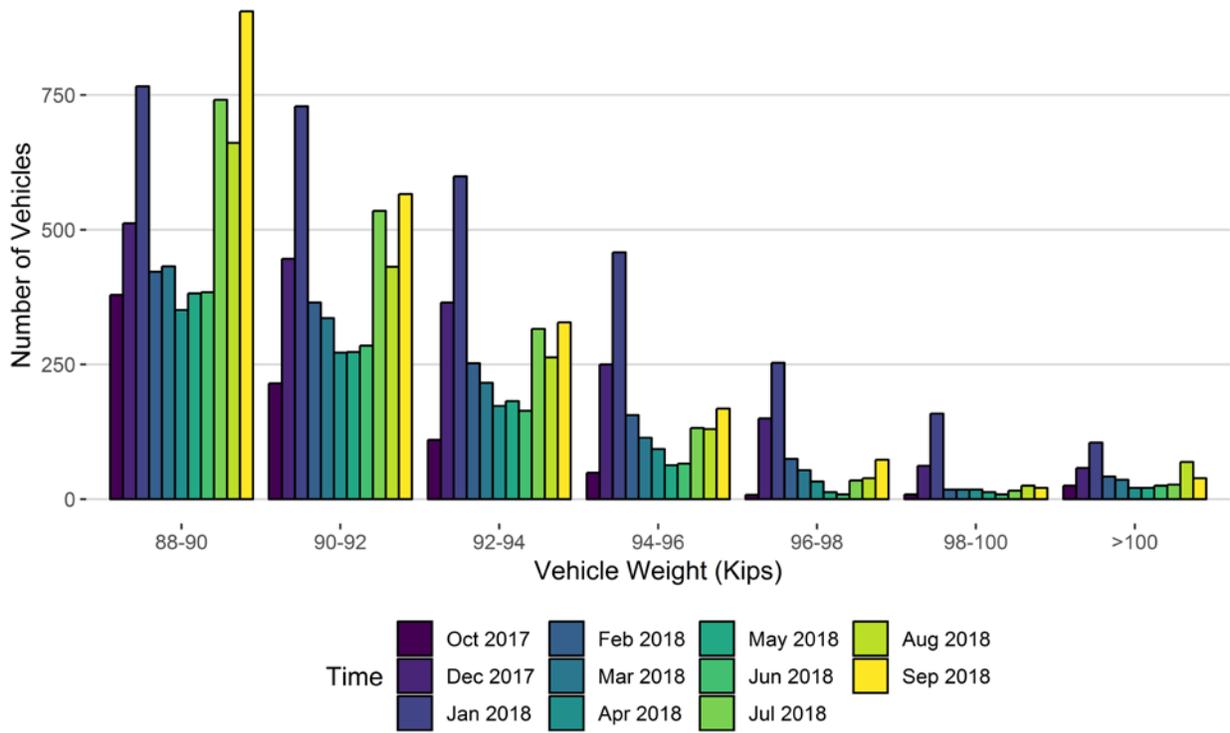
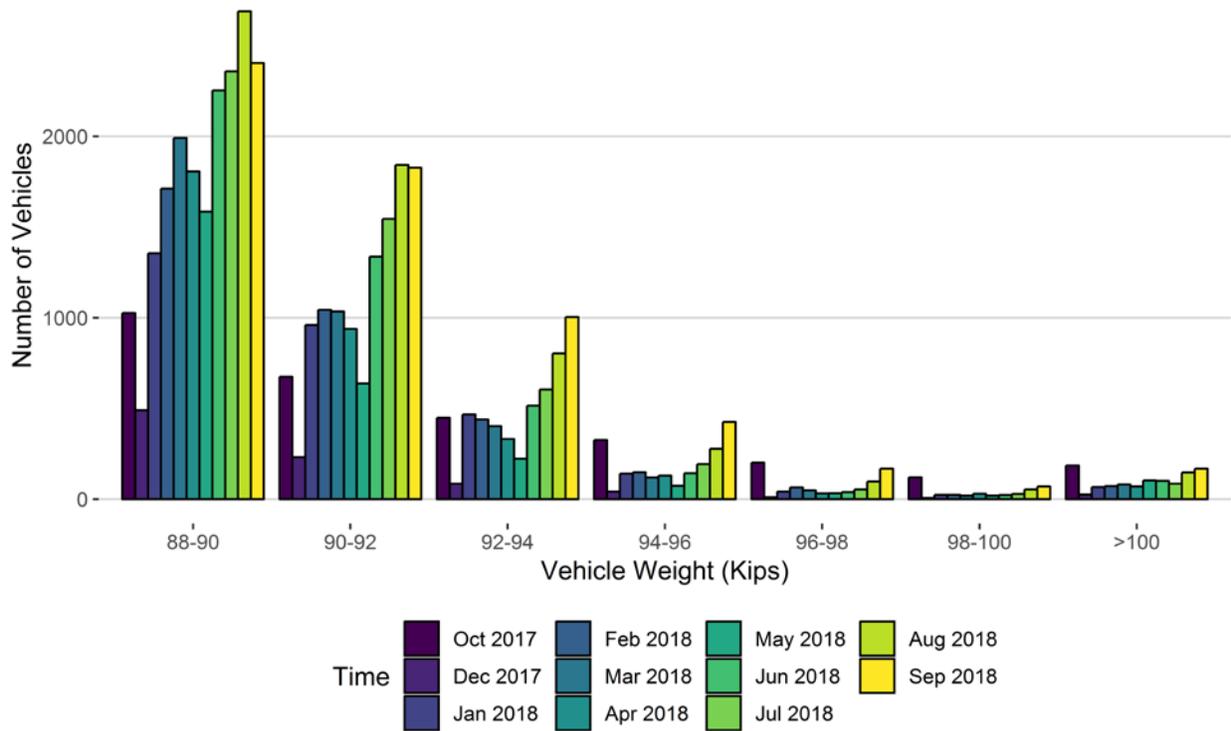


Figure 8 - Histogram of EB Vehicles Over 88,000 Pounds for Current Month



Vehicle Weights (Kips)	Oct 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018
88-90	379	512	766	422	432	351	382	384	741	661	905
90-92	215	446	729	365	336	272	273	285	535	431	566
92-94	110	365	599	252	216	173	182	164	316	263	328
94-96	49	250	458	156	114	93	63	66	132	130	168
96-98	8	150	253	75	54	33	13	9	35	39	73
98-100	9	62	159	18	18	18	13	9	16	25	21
>100	25	58	105	42	36	21	21	25	27	69	39
Total	795	1843	3069	1330	1206	961	947	942	1802	1618	2100

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



Vehicle Weights (Kips)	Oct 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018
88-90	1026	491	1355	1712	1991	1807	1585	2253	2358	2689	2404
90-92	675	232	960	1044	1035	939	638	1337	1545	1843	1827
92-94	449	86	467	440	403	332	223	516	605	804	1004
94-96	326	42	141	148	120	130	74	143	193	278	426
96-98	202	11	42	65	49	32	33	39	54	98	169
98-100	121	7	24	24	20	30	20	23	29	54	70
>100	186	26	67	72	81	70	104	101	86	147	169
Total	2985	895	3056	3505	3699	3340	2677	4412	4870	5913	6069

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

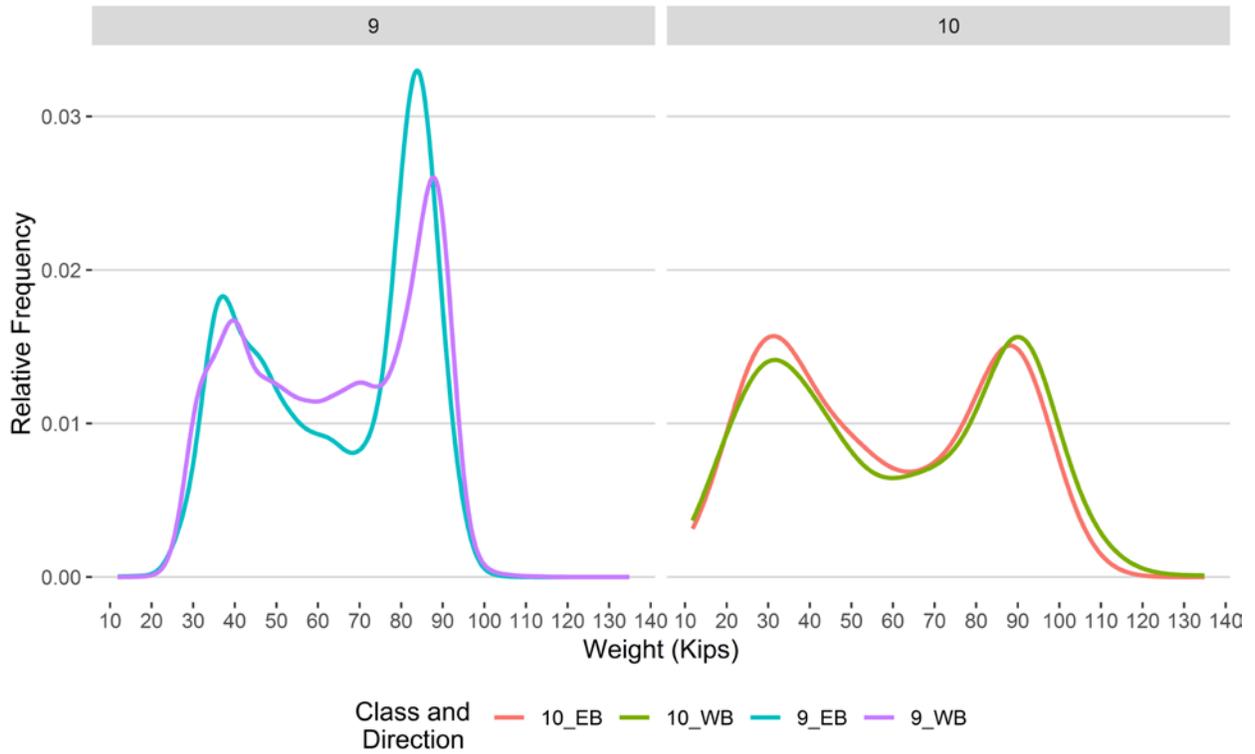


Figure 9 - Freight Percentage by Direction and Class

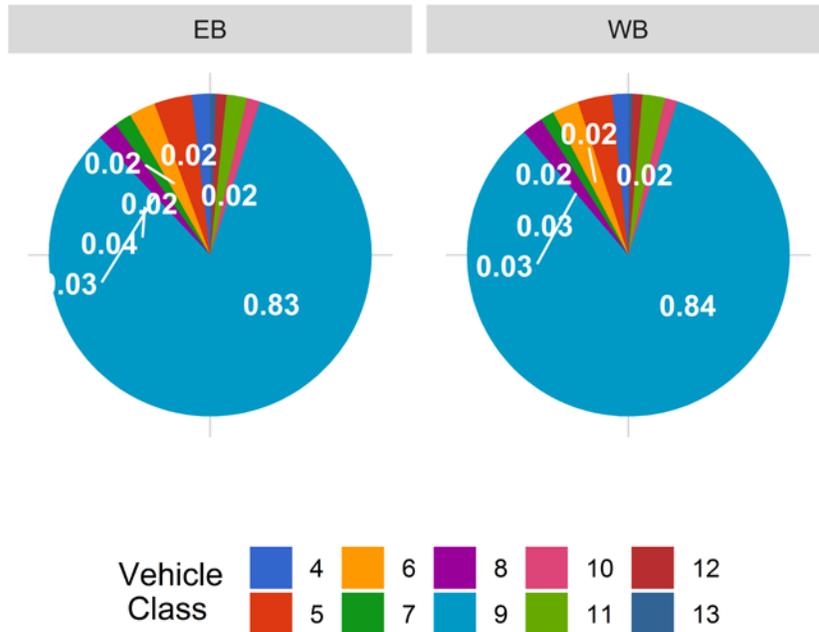


Figure 10 - Total Gross Vehicle Weight Percentage by Class and Lane

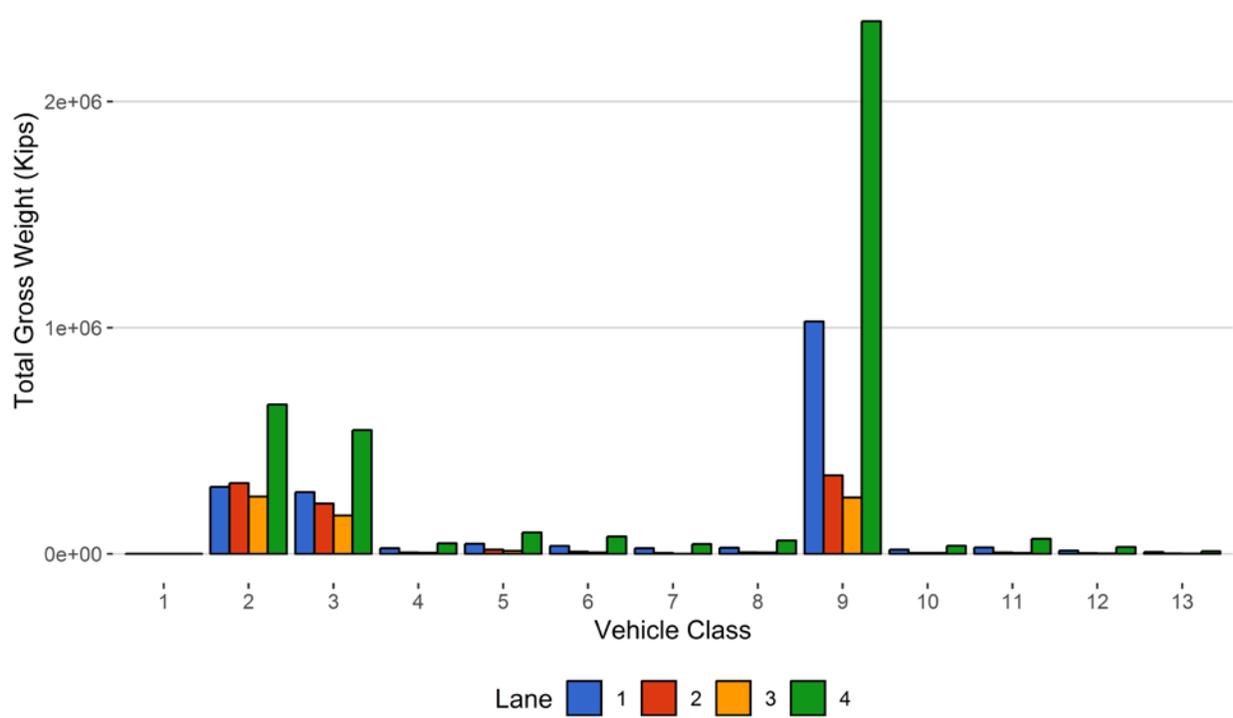


Figure 11 - Total Gross Vehicle Weight t

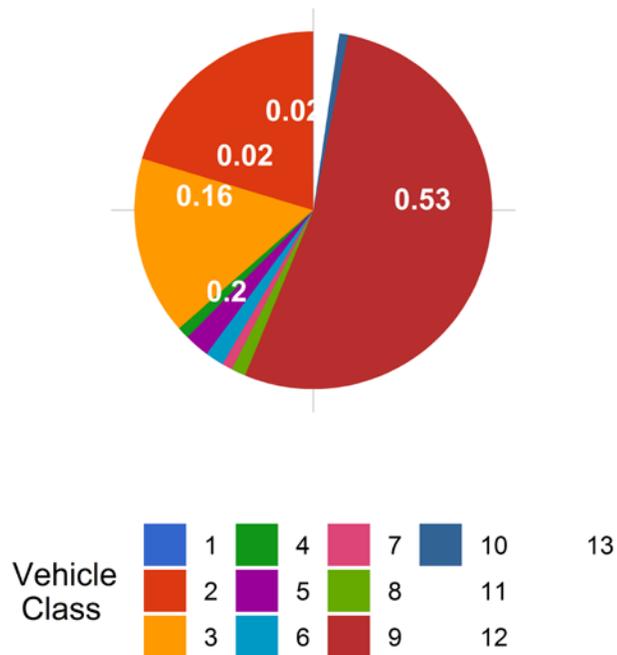


Figure 12 - Total ESALs by Class and Lane

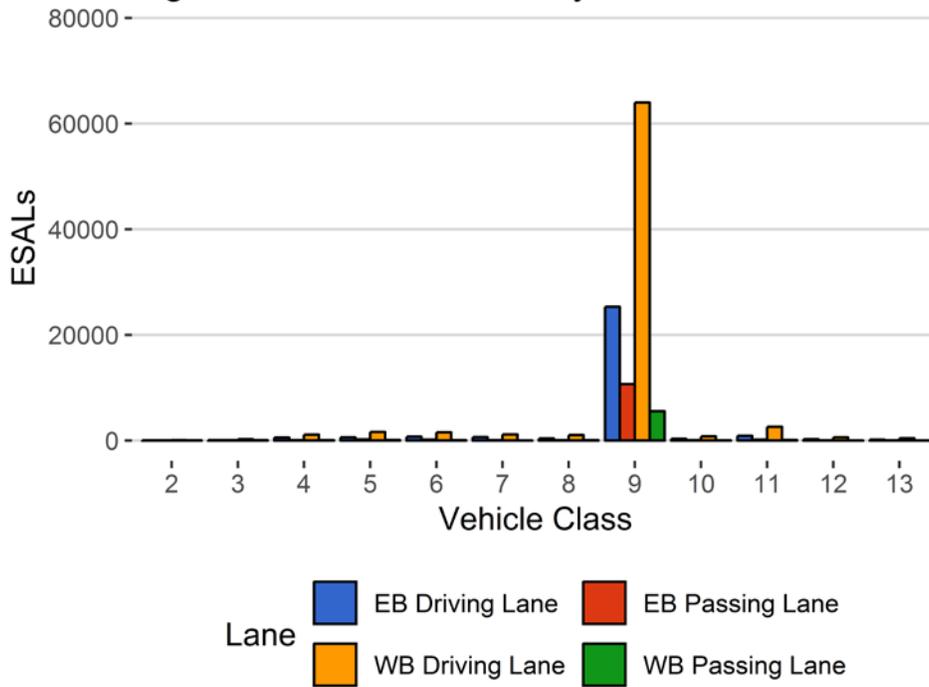
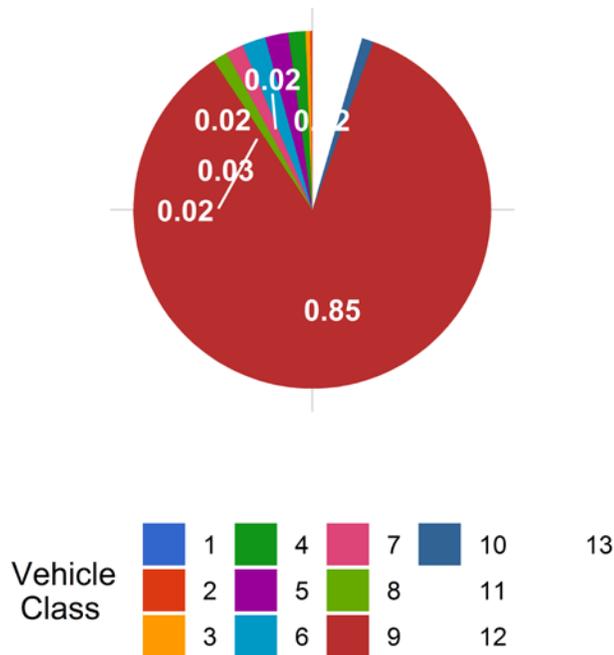


Figure 13 - ESALs by Class



**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
August 2018	10.63	-6.13	12.78	4.40	11.73	-2.73	12.19	1.91
September 2018	11.81	4.33	12.94	5.68	11.84	-1.84	12.32	3.03

**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	10	312	0	0	0
2	11985	359545	56.4	0	0
3	6237	187123	29.4	0	0
4	94	2814	0.4	367	1.4
5	383	11487	1.8	307	1.2
6	134	4010	0.6	350	1.3
7	37	1112	0.2	431	1.6
8	97	2919	0.5	152	0.6
9	2142	64252	10.1	23761	89.5
10	35	1052	0.2	380	1.4
11	53	1589	0.2	484	1.8
12	24	727	0.1	157	0.6
13	8	229	0	153	0.6
<b>TOTAL</b>	<b>21239</b>	<b>637170</b>	<b>100</b>	<b>26542</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>
2018-09-18	Tuesday	15:25:46	10	WB	4	134.9
2018-09-01	Saturday	16:24:33	10	WB	4	119.18
2018-09-04	Tuesday	07:00:59	10	WB	4	118.25
2018-09-21	Friday	07:24:59	9	WB	4	118.22
2018-09-15	Saturday	12:34:27	9	WB	4	114.3
2018-09-21	Friday	23:24:14	9	WB	4	113.49
2018-09-27	Thursday	00:59:38	9	WB	4	112.97
2018-09-29	Saturday	17:11:32	9	WB	4	112.37
2018-09-03	Monday	13:23:39	9	WB	4	112.28
2018-09-18	Tuesday	12:51:45	10	WB	4	111.83

**Table 4 Freight Summary**

<i>Vehicle Class</i>	<i>Direction</i>	<i>Weight of Empty Vehicle (Kips)</i>	<i>Total Number of Vehicles</i>	<i>Number of Empty Vehicles</i>	<i>Percentage of Empty Vehicles</i>	<i>Total Weight of Vehicles with Freight (Kips)</i>	<i>Total Weight of Empty Vehicles (Kips)</i>	<i>Total Weight of Freight (Tons)</i>
4	EB	15	1018	75	7.4	29441	1013	7648
5	EB	8	4237	325	7.7	60093	2355	14398
6	EB	19	1336	92	6.9	42257	1621	9310
7	EB	11.5	432	0	0	28307	0	11669
8	EB	31	971	344	35.4	25257	7583	2910
9	EB	33	21316	1063	5	1342158	31705	336904
10	EB	33.5	375	102	27.2	19136	2698	4995
11	EB	36.5	534	8	1.5	33931	217	7366
12	EB	36.5	256	3	1.2	17238	76	4002
13	EB	31.5	104	0	0	9328	0	3026
<b>TOTAL</b>	<b>****</b>	<b>****</b>	<b>30579</b>	<b>2012</b>	<b>****</b>	<b>1607145</b>	<b>****</b>	<b>402230</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	1701	127	7.5	48946	1702	12668
5	WB	8	6861	314	4.6	104495	2292	26059
6	WB	19	2538	134	5.3	79538	2390	16931
7	WB	11.5	642	0	0	43541	0	18079
8	WB	31	1849	706	38.2	47658	16970	6113
9	WB	33	40758	2857	7	2517884	85948	633576
10	WB	33.5	641	162	25.3	34809	4121	9381
11	WB	36.5	1001	12	1.2	70046	282	16974
12	WB	36.5	446	1	0.2	31111	23	7434
13	WB	31.5	117	0	0	12353	0	4334
<b>TOTAL</b>	<b>****</b>	<b>****</b>	<b>56554</b>	<b>4313</b>	<b>****</b>	<b>2990381</b>	<b>****</b>	<b>751548</b>
<b>GRAND TOTAL</b>	<b>****</b>	<b>****</b>	<b>87133</b>	<b>6325</b>	<b>182</b>	<b>4597526</b>	<b>160996</b>	<b>1153778</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	111	90	94	114	408	0
2	296001	312633	253116	660350	1522100	20.3
3	272521	222182	169112	547243	1211059	16.2
4	24515	5938	4340	46308	81101	1.1
5	44421	18027	12480	94307	169235	2.3
6	34845	9033	5651	76276	125805	1.7
7	24699	3607	432	43109	71848	1
8	26428	6411	5950	58679	97468	1.3
9	1027326	346537	248442	2355390	3977695	53.1
10	18037	3797	3742	35188	60764	0.8
11	28180	5968	3835	66493	104476	1.4
12	14418	2895	1564	29570	48448	0.6
13	7708	1620	761	11592	21681	0.3
<b>TOTAL</b>	<b>1819210</b>	<b>938740</b>	<b>709520</b>	<b>4024618</b>	<b>7492089</b>	<b>100</b>
<b>GVW/LANE</b>	<b>24.28</b>	<b>12.53</b>	<b>9.47</b>	<b>53.72</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	0.0033
2	36	49	39	104	228	0.18	0.0013
3	102	95	74	261	532	0.43	0.0059
4	610	106	72	1128	1916	1.55	1.41
5	614	227	118	1640	2599	2.1	0.47
6	757	204	93	1571	2625	2.12	1.36
7	678	91	20	1186	1975	1.59	3.66
8	404	97	77	1069	1647	1.33	1.17
9	25342	10699	5558	63984	105584	85.16	3.4
10	357	78	66	810	1311	1.06	2.57
11	911	192	129	2618	3849	3.1	4.99
12	285	64	26	632	1008	0.81	2.84
13	201	35	19	459	714	0.58	6.16
<b>TOTAL</b>	<b>30298</b>	<b>11936</b>	<b>6291</b>	<b>75462</b>	<b>123988</b>	<b>100</b>	<b>28</b>
<b>ESALS/LANE</b>	<b>24.4</b>	<b>9.6</b>	<b>5.1</b>	<b>60.9</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>
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
Aug 2018	789021	25452	3486	680966	86.3	108054.7	13.7	86.1	13.9
Sep 2018	637170	21239	3006	546979	85.8	90190.7	14.2	85	15
<b>TOTAL</b>	<b>7533909</b>	<b>-</b>	<b>-</b>	<b>6544965</b>	<b>-</b>	<b>988945</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>AVERAGE</b>	<b>684901</b>	<b>22459</b>	<b>2948</b>	<b>594997</b>	<b>87</b>	<b>89904</b>	<b>13</b>	<b>84</b>	<b>16</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>
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
Aug 2018	32525	12583	7036	82490	134635	85	15	31.5
Sep 2018	30430	12029	6313	76534	125306	85	15	37.1
<b>TOTAL</b>	<b>292201</b>	<b>129718</b>	<b>74241</b>	<b>657657</b>	<b>1153817</b>	-	-	-
<b>AVERAGE</b>	<b>26564</b>	<b>11792</b>	<b>6749</b>	<b>59787</b>	<b>104892</b>	<b>82</b>	<b>18</b>	<b>26</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>
Oct 2017	1766773	670355	515044	1948965	4901137
Dec 2017	1548618	606656	457410	2455684	5068368
Jan 2018	2931469	759060	586267	3650504	7927301
Feb 2018	2785677	692032	555620	3520002	7553332
Mar 2018	2870338	936643	1392451	3125714	8325147
Apr 2018	2735684	971481	814055	4101668	8622887
May 2018	2329986	1486733	800733	4211161	8828613
Jun 2018	2592130	1058321	848141	4398049	8896640
Jul 2018	1826437	941145	710711	4047287	7525580
Aug 2018	1844438	851013	680855	3359518	6735824
Sep 2018	2602727	725139	571128	1034431	4933426
<b>TOTAL</b>	<b>25834278</b>	<b>9698578</b>	<b>7932416</b>	<b>35852983</b>	<b>79318255</b>
<b>AVERAGE</b>	<b>2348571</b>	<b>881689</b>	<b>721129</b>	<b>3259362</b>	<b>7210750</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>
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
Aug 2018	26070	3.4	24.6	7553	306
Sep 2018	26866	4.4	29.9	8207	307
<b>TOTAL</b>	<b>210840</b>	<b>-</b>	<b>-</b>	<b>58257</b>	<b>2427</b>
<b>AVERAGE</b>	<b>19167.3</b>	<b>3</b>	<b>21.3</b>	<b>5296.1</b>	<b>220.6</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>
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
Aug 2018	488240	816283	1304522	37.4	62.6
Sep 2018	402230	751548	1153778	34.9	65.1
<b>TOTAL</b>	<b>4660854</b>	<b>6715210</b>	<b>11376064</b>	-	-
<b>AVERAGE</b>	<b>423714</b>	<b>610473.6</b>	<b>1034187.6</b>	<b>42</b>	<b>58</b>