

DECEMBER 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 December 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: 638349 | Passenger Vehicles: 558362 | Heavy Commercial Vehicles: 79987

Monthly Average Daily Traffic (MADT): 20592 | Monthly Heavy Commercial Average Daily Traffic (MHCADT): 2580

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 Sundays. 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 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 13's.

## Overweight HCVs

**Volume trends.** Of a total of 79987 HCVs, 23742 of them were overweight <sup>3</sup>. These overweight HCVs contributed to 4.2% of total monthly volume, and 33% of total monthly HCV volume. EB overweight vehicles typically reached highest numbers on Wednesdays, 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 11 vehicles . Overall, overweight vehicles tended to reach peak volume concentrations during typical business hours, with 68.9% of all overweight vehicles traveling EB 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 November.

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 ,6310 EB vehicles exceeded 88,000 pounds (5958 vehicles were Class 9's; 152 vehicles were Class 10's). Of vehicles traveling WB,

4685 EB vehicles exceeded 88,000 pounds (4447 vehicles were Class 9's; 78 vehicles were Class 14's). Refer to Table 3 for the Top 10 highest recorded GVWs from Classes 9 and 10 from December 2018.

**Loaded vs. Unloaded HCVs.** Figure 10 shows the GVW distributions of Class 9s and 10s in December 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 985127 tons of freight was recorded to have crossed the WIM. More freight was shipped EB (66.2%) than WB (33.8%). 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 638349 vehicles with a combined GVW of 6536625 kips (1 kip = 1,000 pounds = 0.5 tons) in December 2018. See Table 5 and Figures 12-13 for GVW information by vehicle class and lane.

**Pavement Design.** A total of 178140 equivalent single axle loads (ESALs) passed over the pavement at this site. Approximately 58.2% of all ESALs were recorded WB while 41.8% was observed EB. In particular, 58% 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).

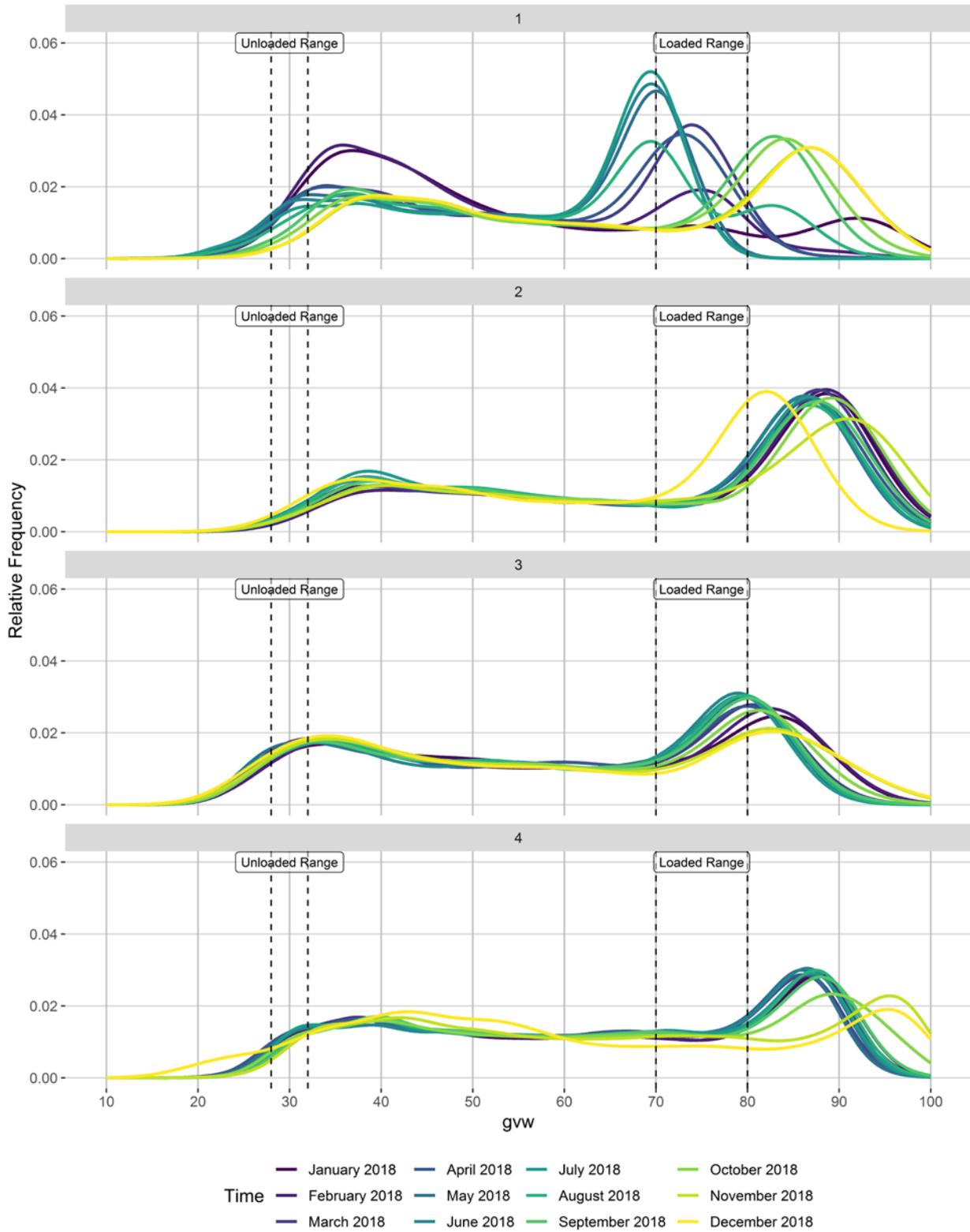
*WIM monthly reports can be found at: <http://www.dot.state.mn.us/traffic/data/reports-monthly-wim.html>*

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.

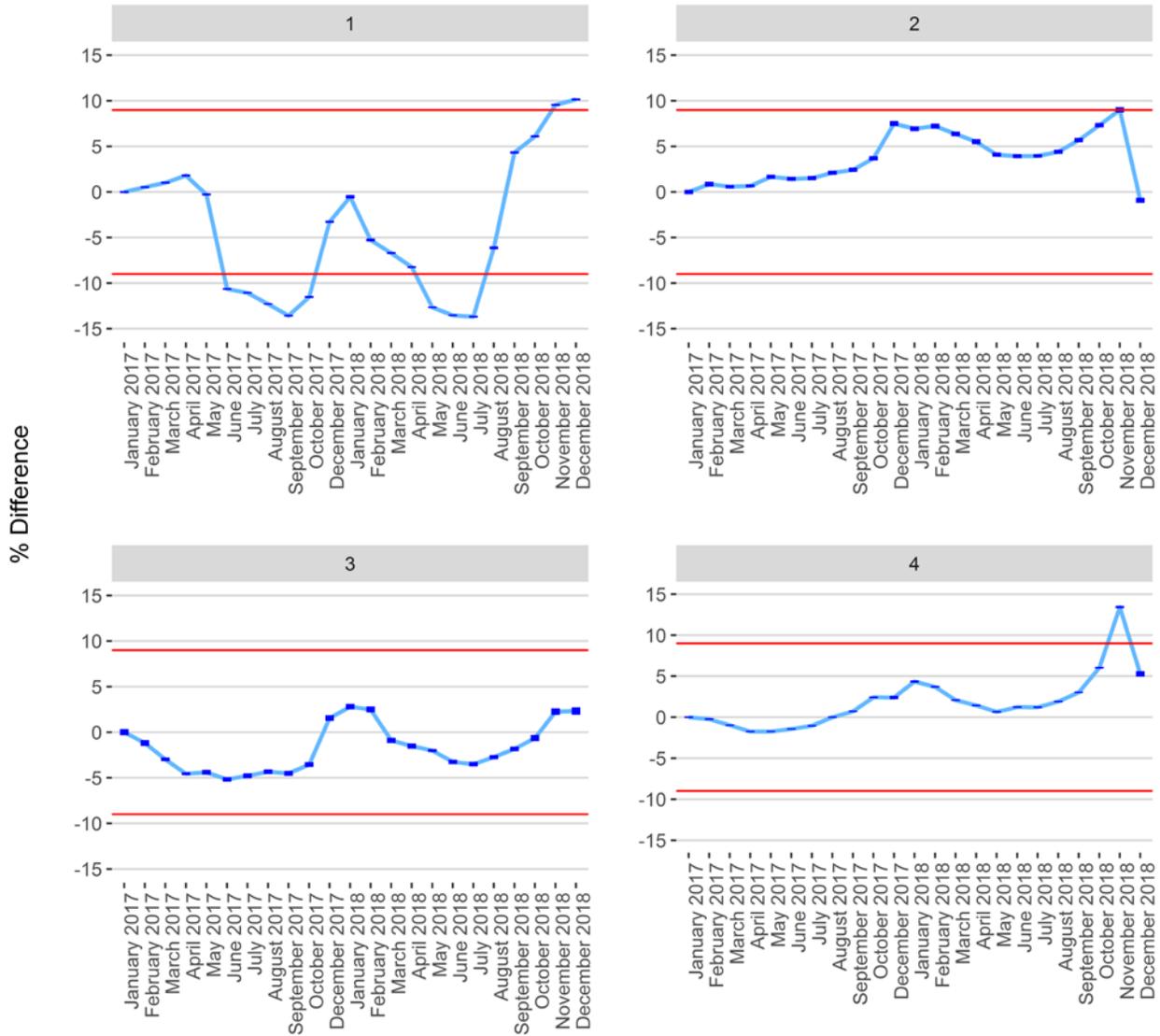
**To request this document in an alternative format, please call 651-366-4718 or 1-800-657-3774, or email your request to [ADArequest.dot@state.mn.us](mailto:ADArequest.dot@state.mn.us). Please request at least one week in advance.**

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

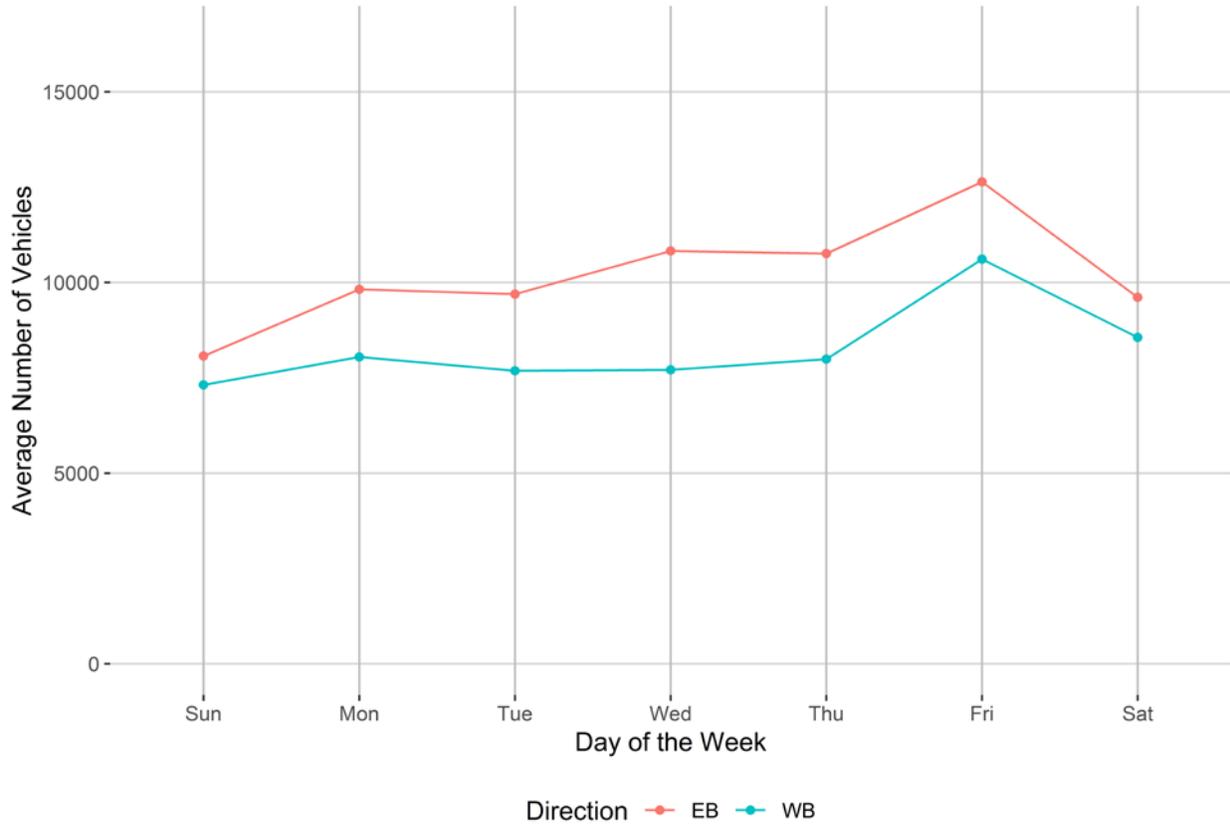


Figure 3 - Average Overweight Vehicle Volume vs. Day of the Week

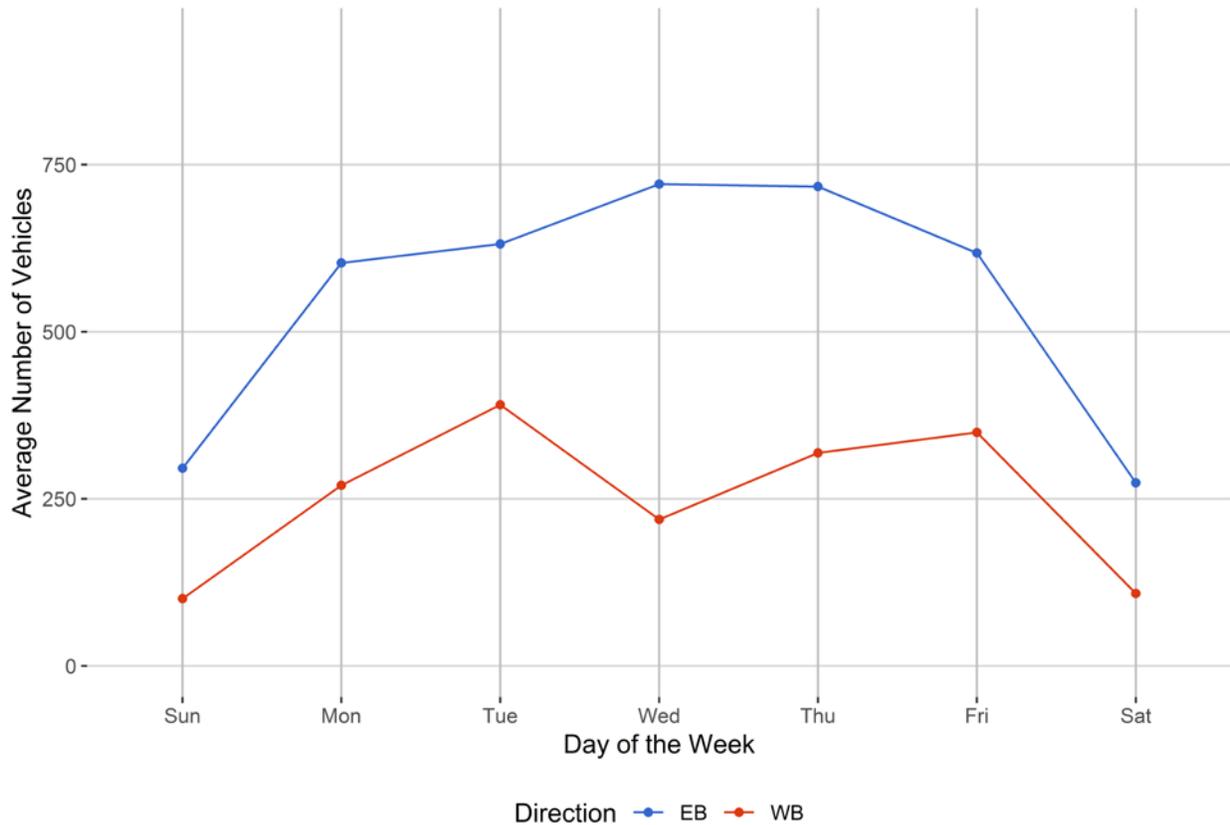


Figure 4 - Passenger Vehicles vs. Hour of the Day

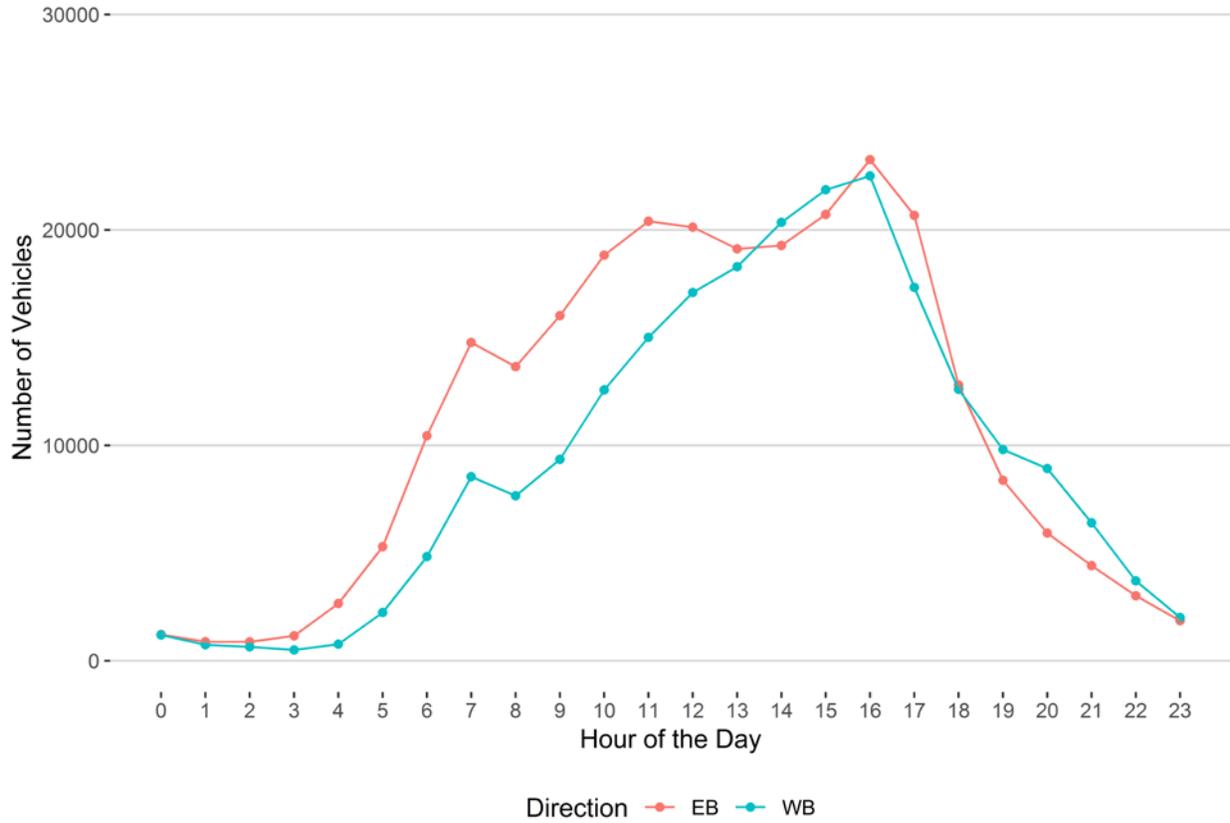


Figure 5 - Heavy Commercial Vehicles vs. Hour of the Day

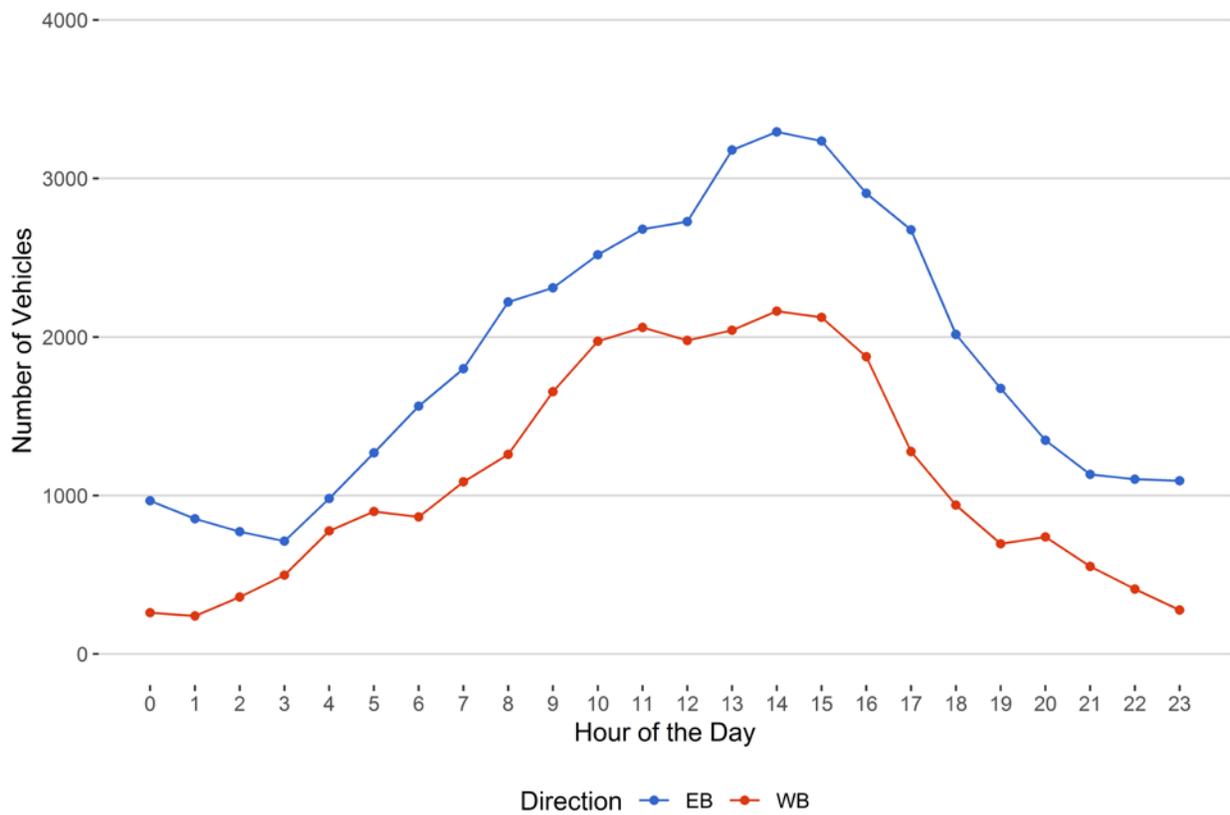


Figure 6 - Overweight Vehicles by Class vs. Hour of the Day

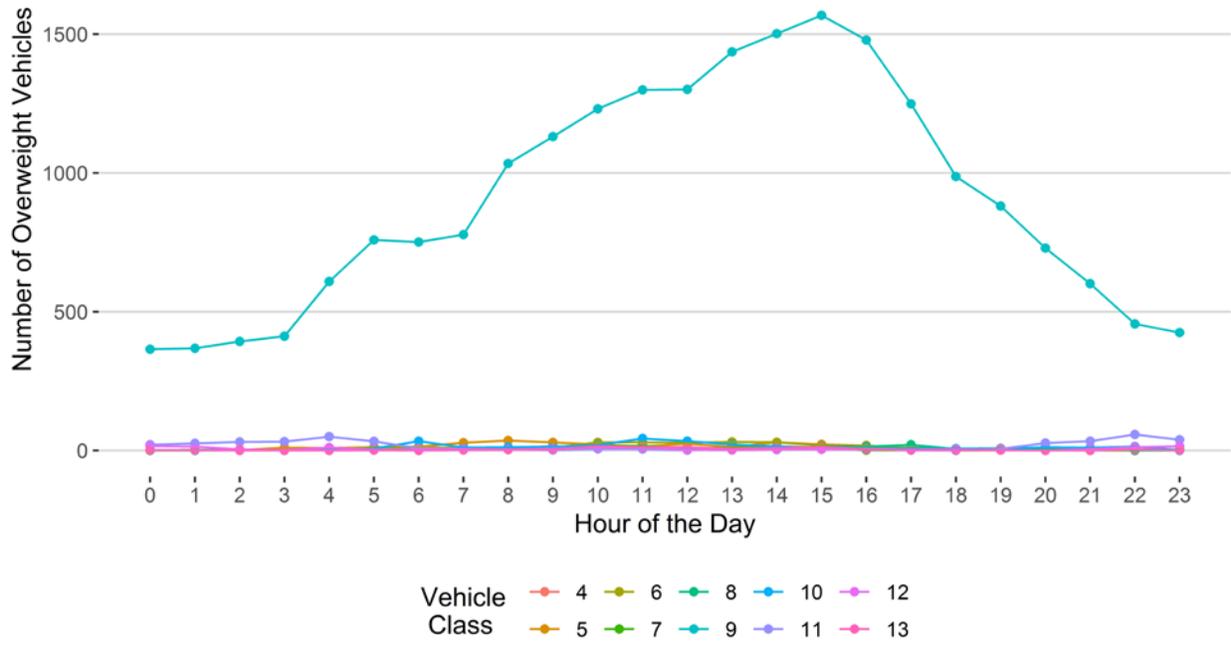


Figure 7 - Overweight Vehicles by Direction  
Hour of the Day

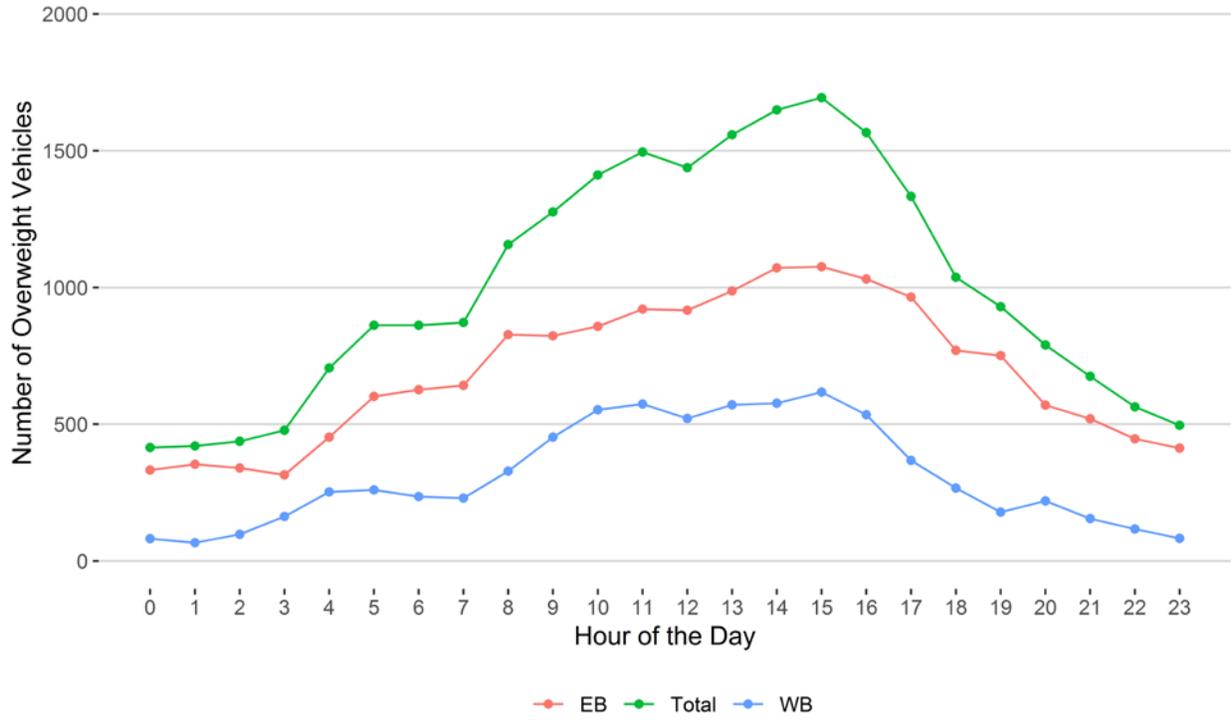
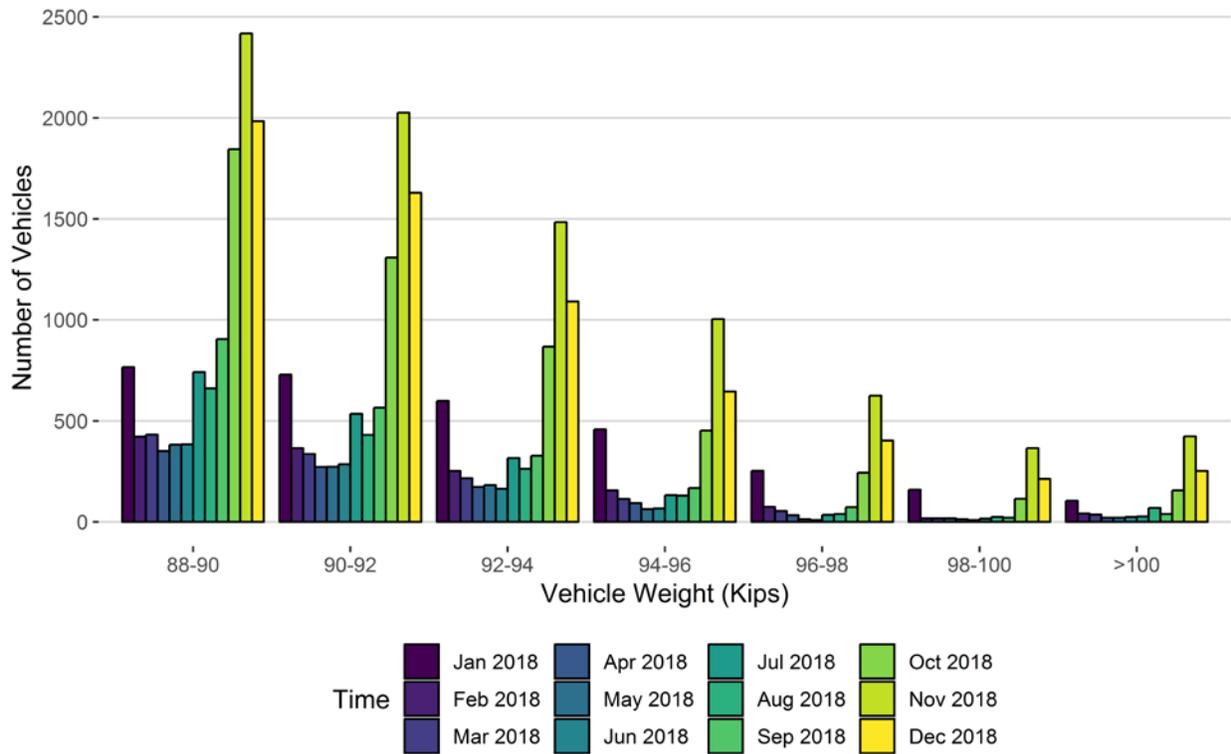
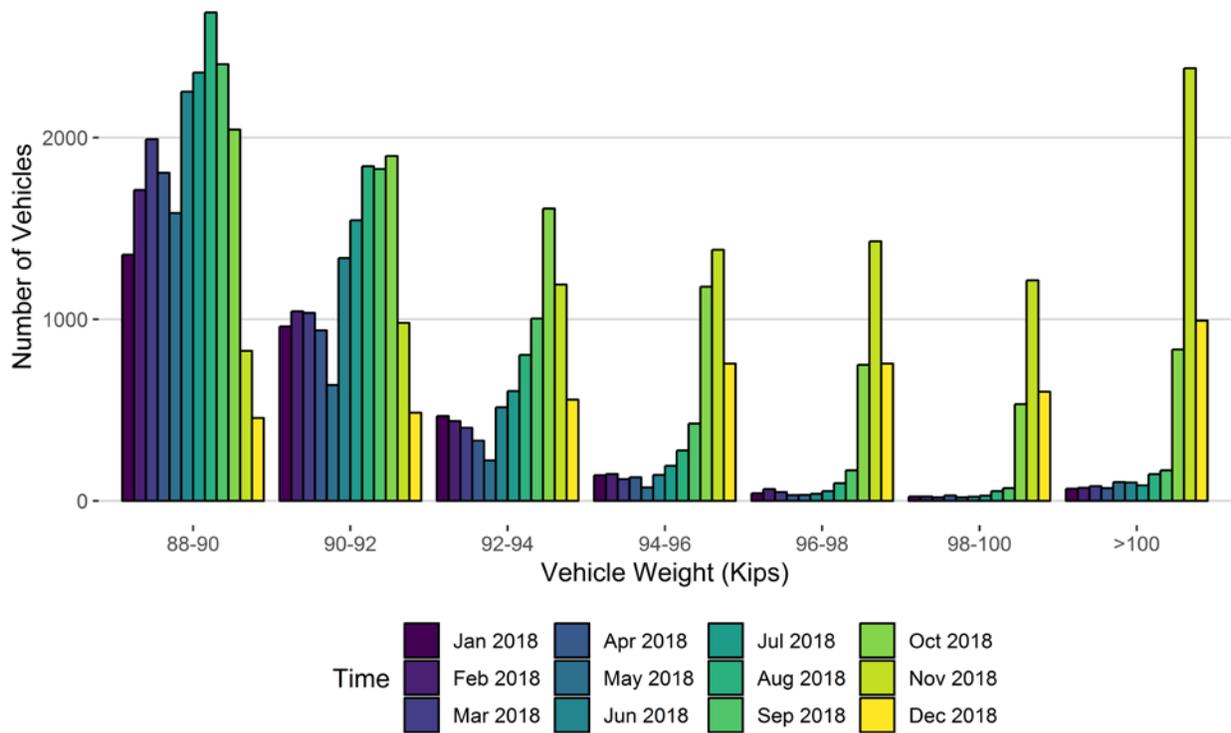


Figure 8 - Histogram of EB Vehicles Over 88,000 Pounds for Current Month



Vehicle Weights (Kips)	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018
88-90	766	422	432	351	382	384	741	661	905	1845	2418	1984
90-92	729	365	336	272	273	285	535	431	566	1309	2026	1629
92-94	599	252	216	173	182	164	316	263	328	867	1484	1091
94-96	458	156	114	93	63	66	132	130	168	452	1004	645
96-98	253	75	54	33	13	9	35	39	73	244	625	403
98-100	159	18	18	18	13	9	16	25	21	115	365	213
>100	105	42	36	21	21	25	27	69	39	156	424	252
Total	3069	1330	1206	961	947	942	1802	1618	2100	4988	8346	6217

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



Vehicle Weights (Kips)	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018
88-90	1355	1712	1991	1807	1585	2253	2358	2689	2404	2044	826	457
90-92	960	1044	1035	939	638	1337	1545	1843	1827	1899	980	486
92-94	467	440	403	332	223	516	605	804	1004	1609	1191	558
94-96	141	148	120	130	74	143	193	278	426	1179	1383	756
96-98	42	65	49	32	33	39	54	98	169	749	1429	756
98-100	24	24	20	30	20	23	29	54	70	533	1214	601
>100	67	72	81	70	104	101	86	147	169	834	2382	993
Total	3056	3505	3699	3340	2677	4412	4870	5913	6069	8847	9405	4607



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

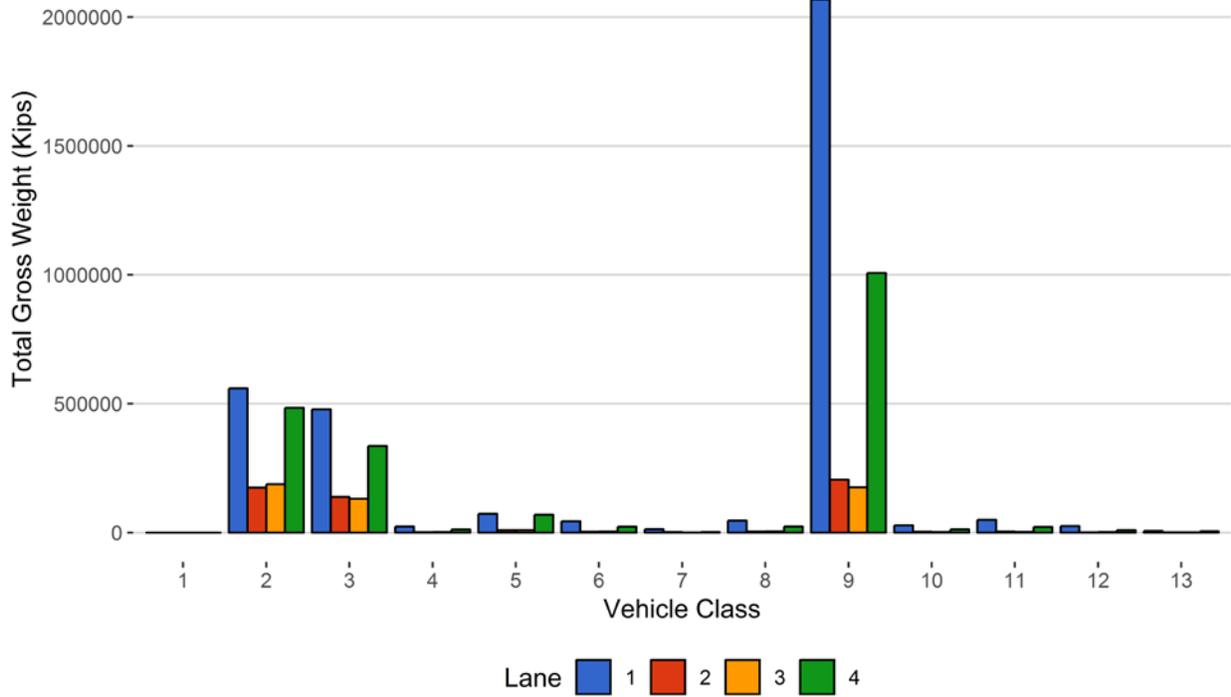


Figure 11 - Total Gross Vehicle Weight t

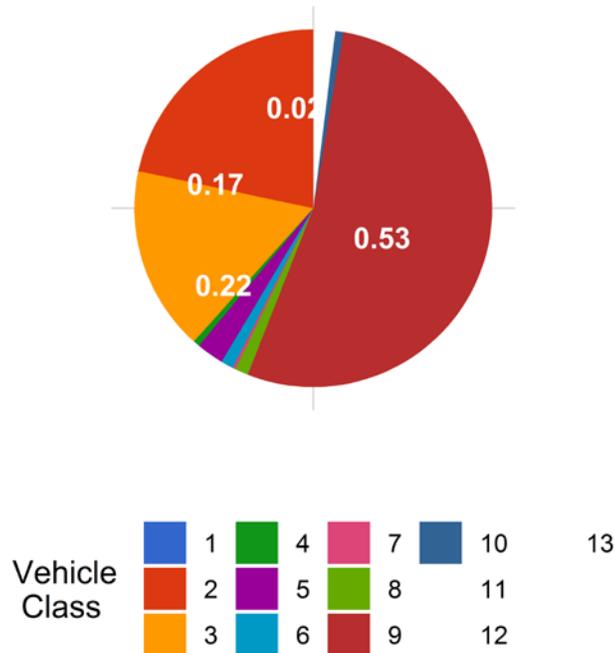


Figure 12 - Total ESALs by Class and Lane

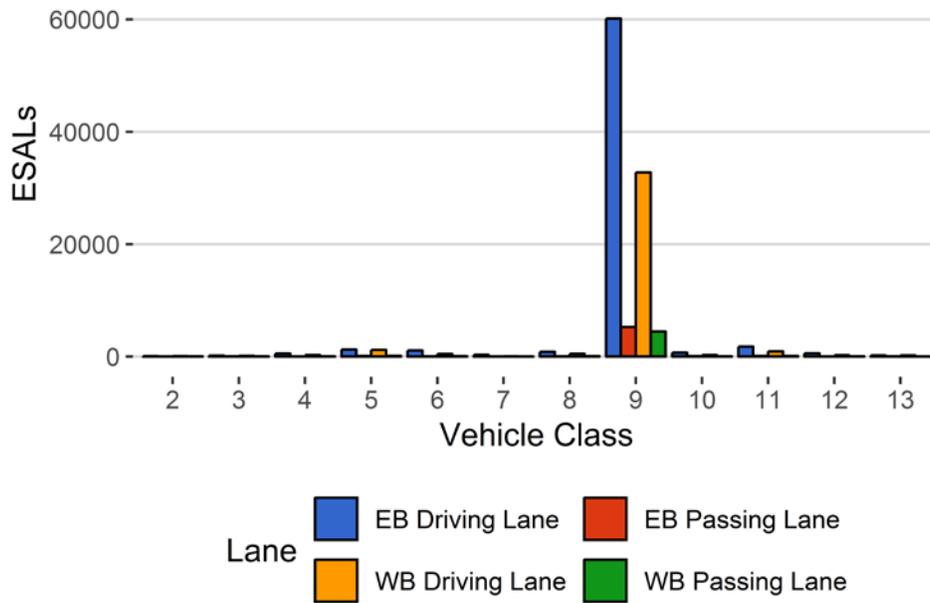
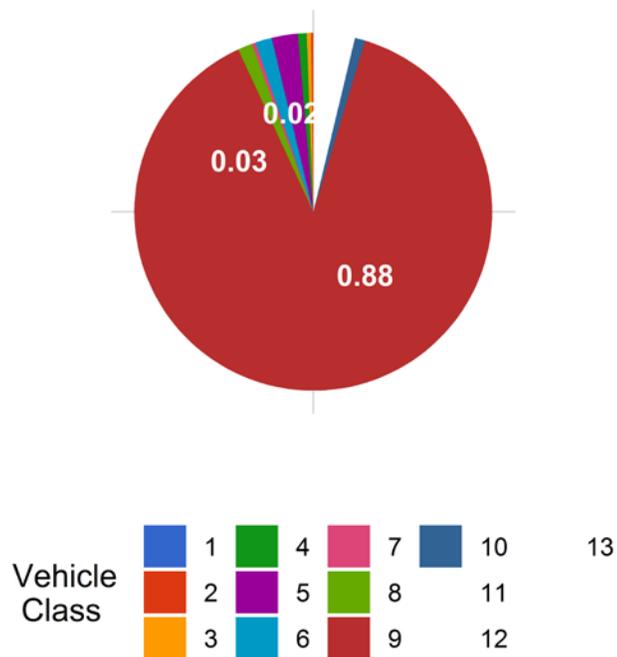


Figure 13 - ESALs by Class



**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
October 2018	12.01	6.10	13.14	7.33	11.99	-0.64	12.68	6.03
November 2018	12.40	9.55	13.34	9.00	12.34	2.26	13.57	13.43
December 2018	12.47	10.15	12.13	-0.92	12.34	2.33	12.59	5.28

**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	10	0	0	0
2	11745	364086	57	0	0
3	6267	194266	30.4	0	0
4	45	1400	0.2	158	0.7
5	384	11898	1.9	329	1.4
6	80	2481	0.4	275	1.2
7	9	294	0	114	0.5
8	75	2335	0.4	161	0.7
9	1895	58743	9.2	21744	91.6
10	26	814	0.1	300	1.3
11	41	1267	0.2	416	1.8
12	20	607	0.1	148	0.6
13	5	147	0	97	0.4
<b>TOTAL</b>	<b>20592</b>	<b>638349</b>	<b>100</b>	<b>23742</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>
2018-12-19	Wednesday	17:38:02	9	WB	4	154.94
2018-12-19	Wednesday	02:43:15	9	WB	4	150.19
2018-12-18	Tuesday	05:46:23	9	WB	4	143.91
2018-12-20	Thursday	22:08:27	9	WB	4	141.3
2018-12-20	Thursday	21:34:14	9	WB	4	141.07
2018-12-18	Tuesday	08:42:24	9	WB	4	139.58
2018-12-20	Thursday	04:22:06	9	WB	4	139.2
2018-12-16	Sunday	08:32:40	9	WB	4	139.1
2018-12-19	Wednesday	18:07:41	9	WB	4	138.2
2018-12-11	Tuesday	03:58:05	9	WB	4	137.7

**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	804	58	7.2	23770	788	6290
5	EB	8	5388	334	6.2	79839	2434	19704
6	EB	19	1390	99	7.1	45166	1748	10318
7	EB	11.5	221	0	0	15039	0	6249
8	EB	31	1366	376	27.5	41311	8849	5310
9	EB	33	34124	1106	3.2	2241126	33000	575766
10	EB	33.5	485	107	22.1	28720	2795	8028
11	EB	36.5	792	5	0.6	52762	145	12018
12	EB	36.5	384	3	0.8	26465	70	6279
13	EB	31.5	80	0	0	7670	0	2575
<b>TOTAL</b>	<b>****</b>	<b>****</b>	<b>45034</b>	<b>2088</b>	<b>****</b>	<b>2561868</b>	<b>****</b>	<b>652538</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	457	45	9.8	13186	578	3503
5	WB	8	5327	242	4.5	76775	1645	18048
6	WB	19	844	71	8.4	25547	1056	5430
7	WB	11.5	44	0	0	2417	0	955
8	WB	31	737	210	28.5	22830	4786	3247
9	WB	33	18777	2084	11.1	1125870	56839	287500
10	WB	33.5	248	51	20.6	13349	1295	3375
11	WB	36.5	349	9	2.6	23899	281	5745
12	WB	36.5	163	4	2.5	11279	135	2738
13	WB	31.5	52	0	0	5734	0	2048
<b>TOTAL</b>	<b>****</b>	<b>****</b>	<b>26998</b>	<b>2716</b>	<b>****</b>	<b>1320887</b>	<b>****</b>	<b>332588</b>
<b>GRAND TOTAL</b>	<b>****</b>	<b>****</b>	<b>72032</b>	<b>4804</b>	<b>163</b>	<b>3882755</b>	<b>116443</b>	<b>985127</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	7	0	0	0	8	0
2	559475	174637	187489	484338	1405940	21.7
3	478302	138035	131131	335912	1083381	16.7
4	23061	1498	2050	11715	38323	0.6
5	72859	9415	9458	68962	160693	2.5
6	43477	3437	3673	22931	73517	1.1
7	12967	2072	454	1962	17456	0.3
8	46306	3854	4489	23128	77776	1.2
9	2068819	205306	175518	1007191	3456834	53.3
10	28291	3223	2179	12465	46159	0.7
11	49005	3902	2836	21344	77088	1.2
12	25345	1189	2022	9392	37948	0.6
13	6486	1184	734	4999	13404	0.2
<b>TOTAL</b>	<b>3414401</b>	<b>547752</b>	<b>522033</b>	<b>2004340</b>	<b>6488527</b>	<b>100</b>
<b>GVW/LANE</b>	<b>52.62</b>	<b>8.44</b>	<b>8.05</b>	<b>30.89</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	0.1
2	80	24	35	86	225	0.19	0.0014
3	200	46	59	154	459	0.4	0.0053
4	569	19	40	293	920	0.79	1.46
5	1274	134	139	1192	2739	2.36	0.51
6	1111	62	70	498	1740	1.5	1.56
7	321	26	13	51	411	0.35	3.05
8	852	51	70	536	1509	1.3	1.43
9	60152	5275	4462	32770	102659	88.43	3.88
10	686	68	34	298	1085	0.93	2.94
11	1794	123	123	920	2960	2.55	5.15
12	588	21	38	254	901	0.78	3.25
13	211	34	17	225	487	0.42	6.81
<b>TOTAL</b>	<b>67838</b>	<b>5882</b>	<b>5101</b>	<b>37275</b>	<b>116095</b>	<b>100</b>	<b>30</b>
<b>ESALS/LANE</b>	<b>58.4</b>	<b>5.1</b>	<b>4.4</b>	<b>32.1</b>	<b>100</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 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
Oct 2018	747257	24105	3949	624847	83.6	122409.5	16.4	89.9	10.1
Nov 2018	686604	22887	3473	582417	84.8	104186.7	15.2	87.8	12.2
Dec 2018	638349	20592	2580	558362	87.5	79987.1	12.5	88.3	11.7
<b>TOTAL</b>	<b>8277485</b>	<b>-</b>	<b>-</b>	<b>7132594</b>	<b>-</b>	<b>1144891</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>AVERAGE</b>	<b>689790</b>	<b>22648</b>	<b>3131</b>	<b>594383</b>	<b>86</b>	<b>95408</b>	<b>14</b>	<b>86</b>	<b>14</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>
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
Oct 2018	66018	12731	4606	95216	178570	90	10	59.2
Nov 2018	78070	12254	6801	101387	198511	90	10	94.3
Dec 2018	68646	5893	5120	98480	178140	94	6	91.6
<b>TOTAL</b>	<b>455022</b>	<b>140425</b>	<b>79721</b>	<b>871201</b>	<b>1546370</b>	-	-	-
<b>AVERAGE</b>	<b>37918</b>	<b>11702</b>	<b>6644</b>	<b>72600</b>	<b>128864</b>	<b>84</b>	<b>16</b>	<b>42</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>
Jan 2018	1766773	670355	515044	1948965	4901137
Feb 2018	1548618	606656	457410	2455684	5068368
Mar 2018	2931469	759060	586267	3650504	7927301
Apr 2018	2785677	692032	555620	3520002	7553332
May 2018	2870338	936643	1392451	3125714	8325147
Jun 2018	2735684	971481	814055	4101668	8622887
Jul 2018	2329986	1486733	800733	4211161	8828613
Aug 2018	2592130	1058321	848141	4398049	8896640
Sep 2018	1826437	941145	710711	4047287	7525580
Oct 2018	3500799	936082	485884	4182310	9105075
Nov 2018	3744102	880532	665172	3400616	8690423
Dec 2018	3431509	552652	524063	2028402	6536625
<b>TOTAL</b>	<b>32063522</b>	<b>10491692</b>	<b>8355553</b>	<b>41070363</b>	<b>91981129</b>
<b>AVERAGE</b>	<b>2671960</b>	<b>874308</b>	<b>696296</b>	<b>3422530</b>	<b>7665094</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 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
Oct 2018	36648	5.5	31.3	13914	1656
Nov 2018	35174	5.4	34.2	17960	4432
Dec 2018	24123	4.2	30.9	10995	2121
<b>TOTAL</b>	<b>279517</b>	<b>-</b>	<b>-</b>	<b>94529</b>	<b>10119</b>
<b>AVERAGE</b>	<b>23293.1</b>	<b>3.6</b>	<b>24.7</b>	<b>7877.4</b>	<b>843.2</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>
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
Oct 2018	724838	801812	1526649	47.5	52.5
Nov 2018	790215	650035	1440250	54.9	45.1
Dec 2018	652538	332588	985127	66.2	33.8
<b>TOTAL</b>	<b>6046469</b>	<b>7701588</b>	<b>13748056</b>	-	-
<b>AVERAGE</b>	<b>503872.4</b>	<b>641799</b>	<b>1145671.4</b>	<b>43.7</b>	<b>56.3</b>