

MARCH 2018



**WIM #31  
US 2, MP 8.0  
EAST GRAND  
FORKS, MN**

**MONTHLY  
REPORT**



*Your Destination...Our Priority*



## WIM Site Location

WIM #31 is located on US 2 near East Grand Forks in Polk county.

## System Operation

WIM #31 was operational for the entire month of March 2018. Volume was computed using all monthly data.

## System Calibration

WIM #31 was most recently calibrated on 2016-11-01. 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: 147026 | Passenger Vehicles: 135498 | Heavy Commercial Vehicles: 11528

Monthly Average Daily Traffic (MADT): 4743 | Monthly Heavy Commercial Average Daily Traffic (MHCADT): 372

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 Mondays (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 11528 HCVs, 1335 of them were overweight<sup>3</sup>. These overweight HCVs contributed to 0.9% of total monthly volume, and 11.7% of total monthly HCV volume. EB overweight vehicles typically reached highest numbers on Wednesdays, with lowest volumes reported on Sundays. 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 10 vehicles . Overall, overweight vehicles tended to reach peak volume concentrations during typical business hours, with 79.9% 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 October.

WIMs are currently used as a screening tool for weight enforcement, and it is estimated that the WIM scales can measure gross vehicle weights (GVW) within 90-95% of static weight scale measurements. Due to the possibility of measurement error, vehicles exceeding 10% of their legal weight limits (or 1.1 times their legal weight limits) are considered overweight in this report<sup>4</sup>.

Using normal load limits ,220 EB vehicles exceeded 88,000 pounds (120 vehicles were Class 13's; 54 vehicles were Class 10's). Of vehicles traveling WB,

28 EB vehicles exceeded 88,000 pounds (20 vehicles were Class 10's; 7 vehicles were Class 13'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 EB, while there were more empty Class 9's than fully\_loaded 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 empty class 10 vehicles.

**Freight Totals.** A total of 85426 tons of freight was recorded to have crossed the WIM. More freight was shipped EB (65.9%) than WB (34.1%). See Table 4 and Figure 11 for more freight information.

## Infrastructure Considerations

**Bridge.** Bridge No. 8023 (a box culvert) is approximately 14.6 miles east of WIM #31, and Bridge No. 4700 is 6.4 miles west of WIM #31. WIM #31 recorded a total of 147026 vehicles with a combined GVW of 1074787 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 7280 equivalent single axle loads (ESALs) passed over the pavement at this site. Approximately 66.7% of all ESALs were recorded EB while 33.3% was observed WB. In particular, 66% of all ESALs were generated by the Class 9's (Class 9's were also responsible for generating 26% 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).

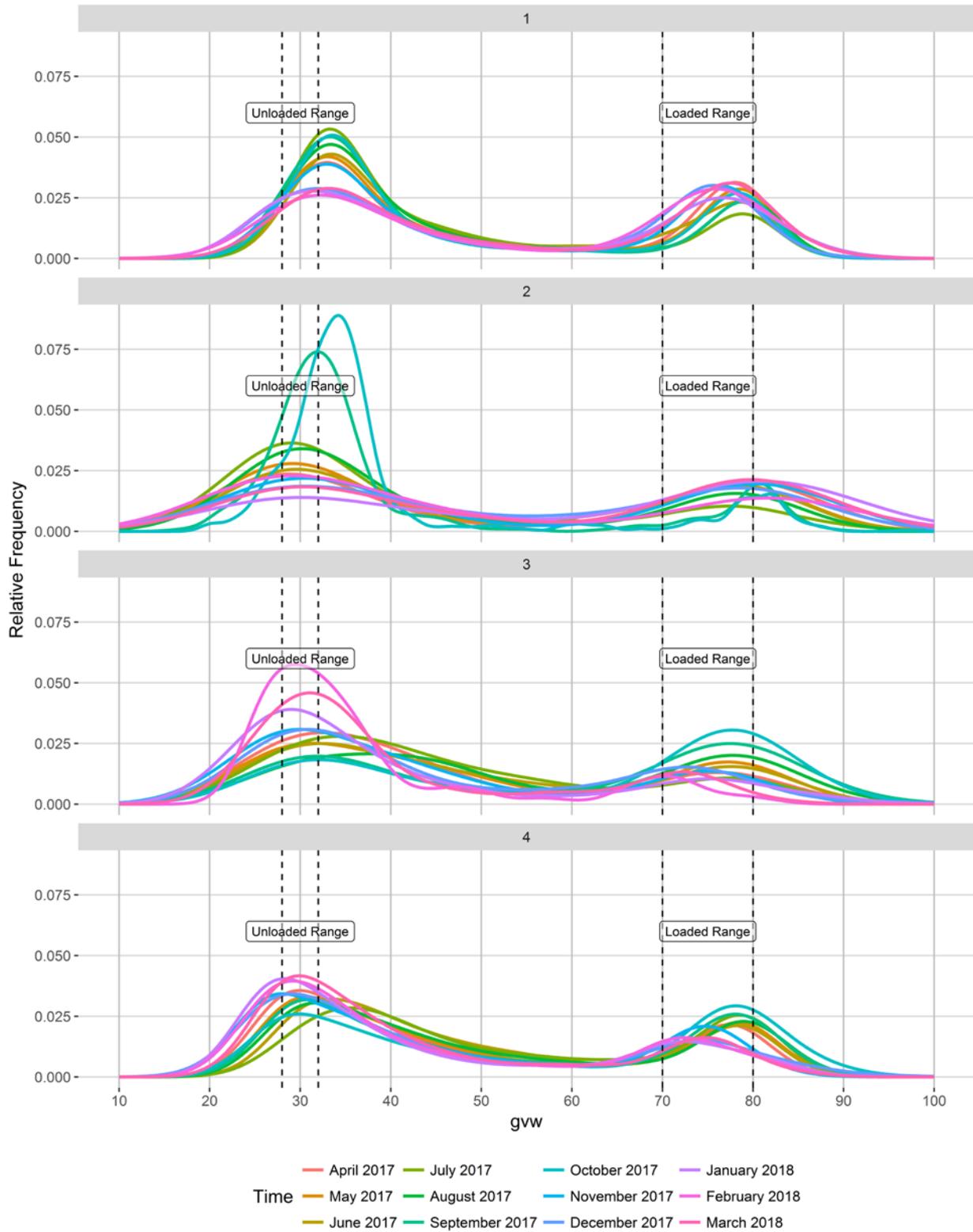
*WIM monthly reports can be found at: <http://www.dot.state.mn.us/traffic/data/reports-monthly-wim.html>*

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.

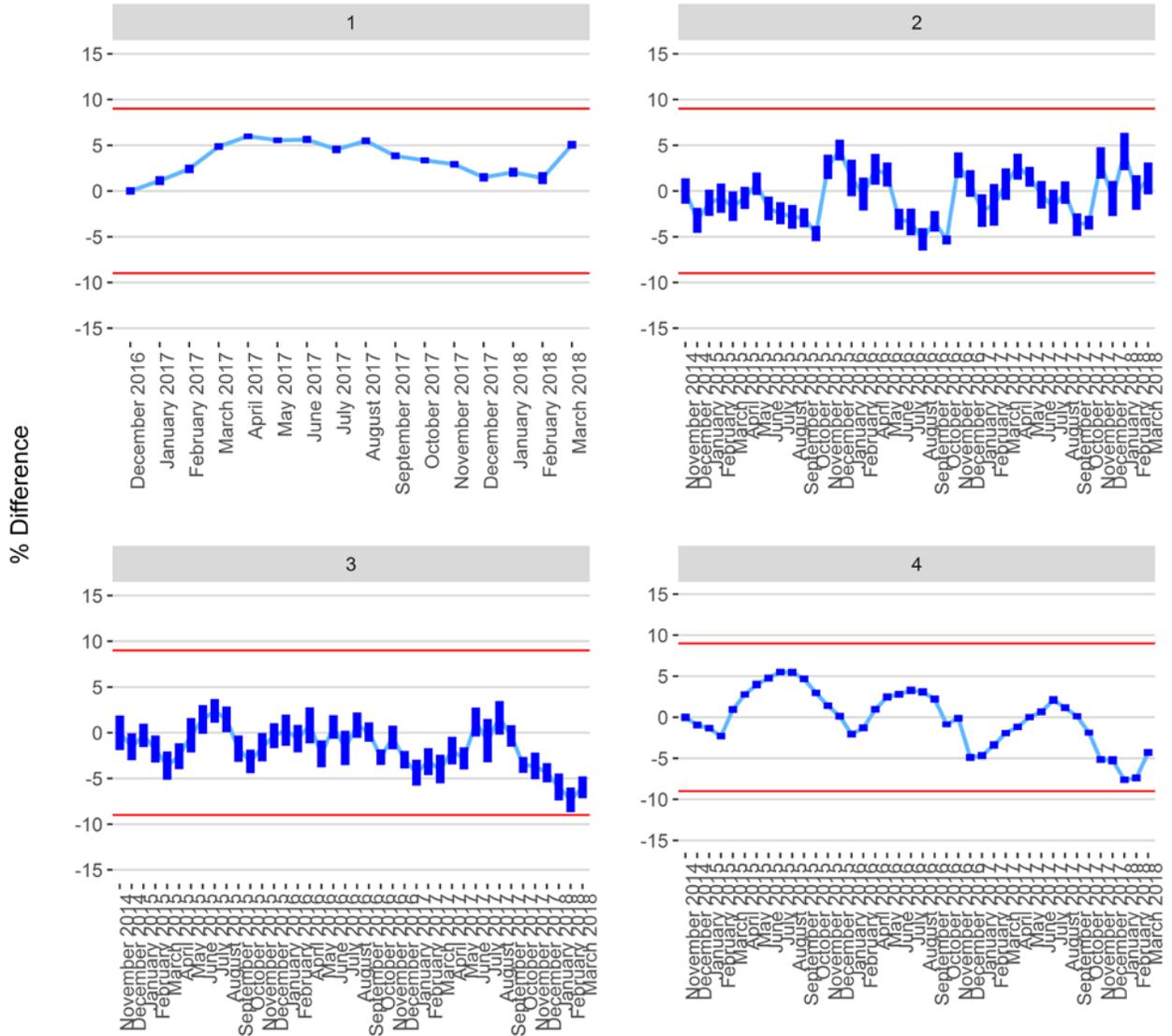
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Figure 1 - Monthly Class 9 GVW Histogram



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

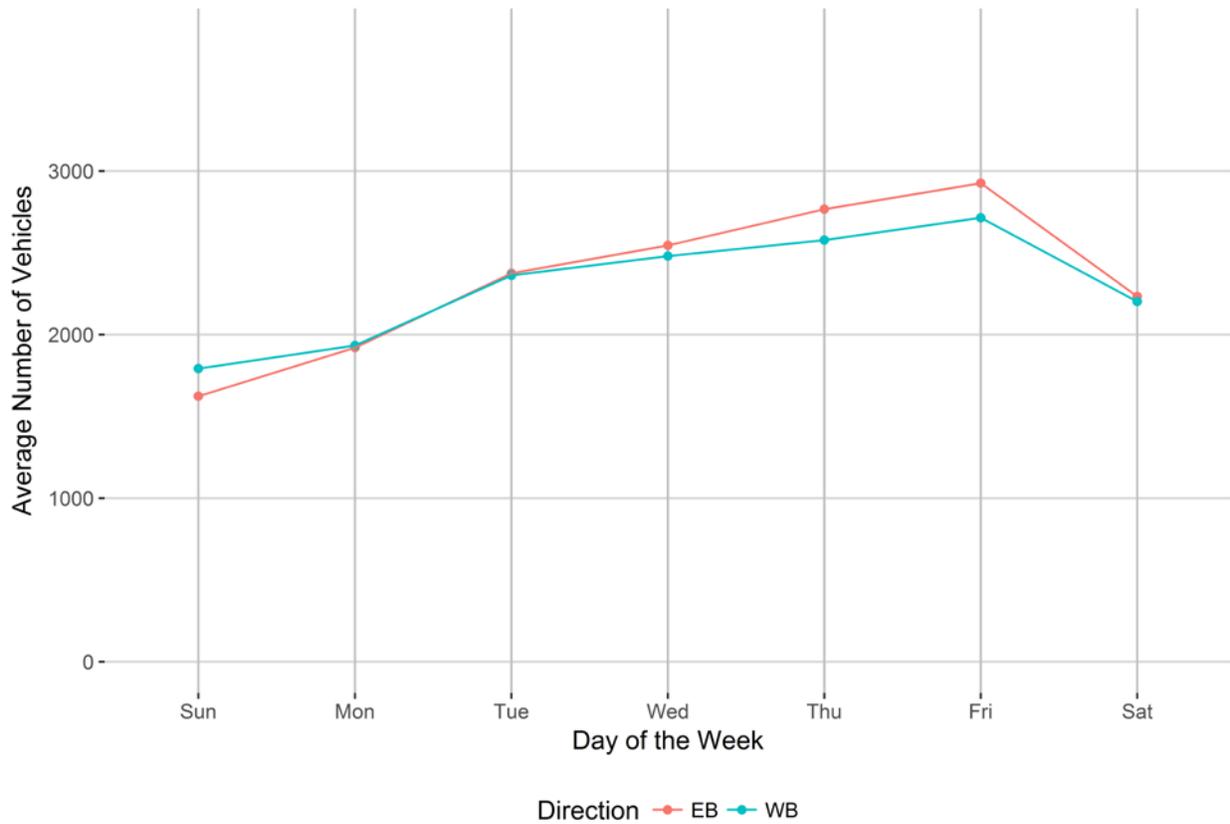


Figure 3 - Average Overweight Vehicle Volume vs. Day of the Week

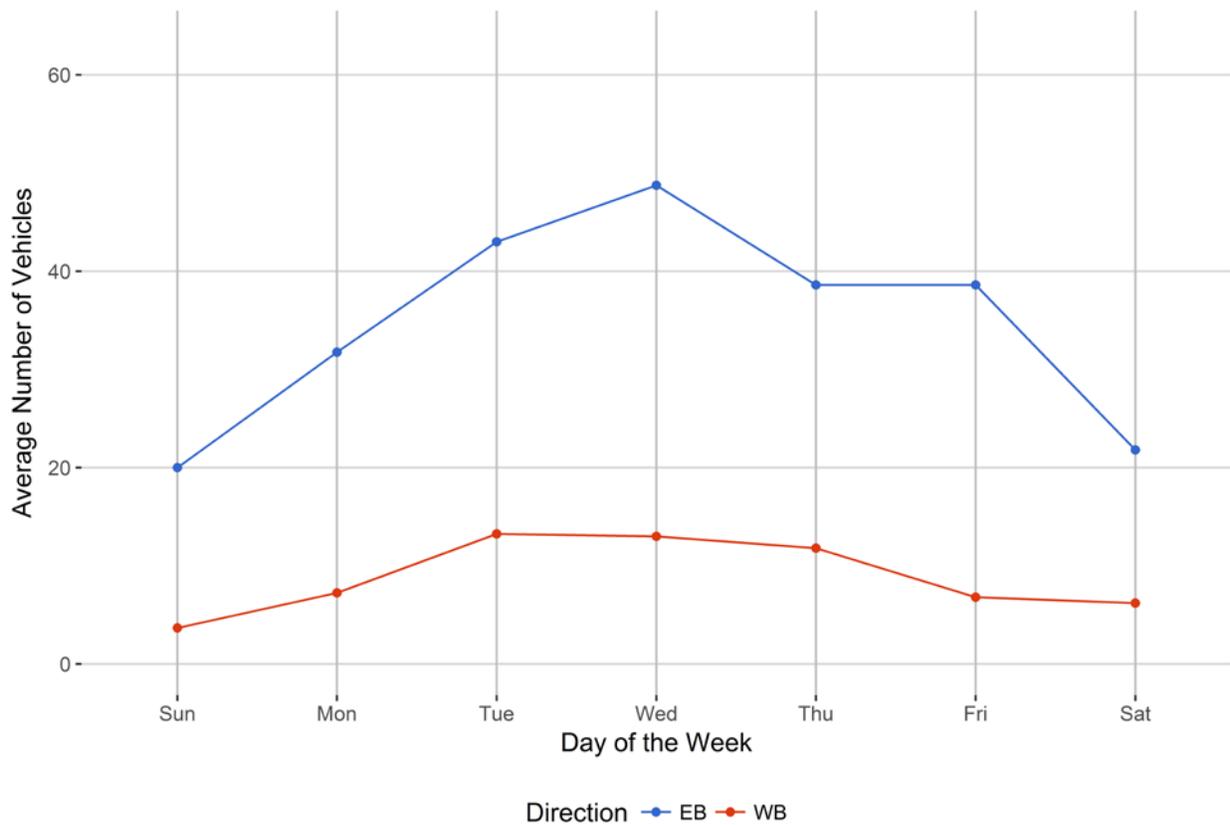


Figure 4 - Passenger Vehicles vs. Hour of the Day

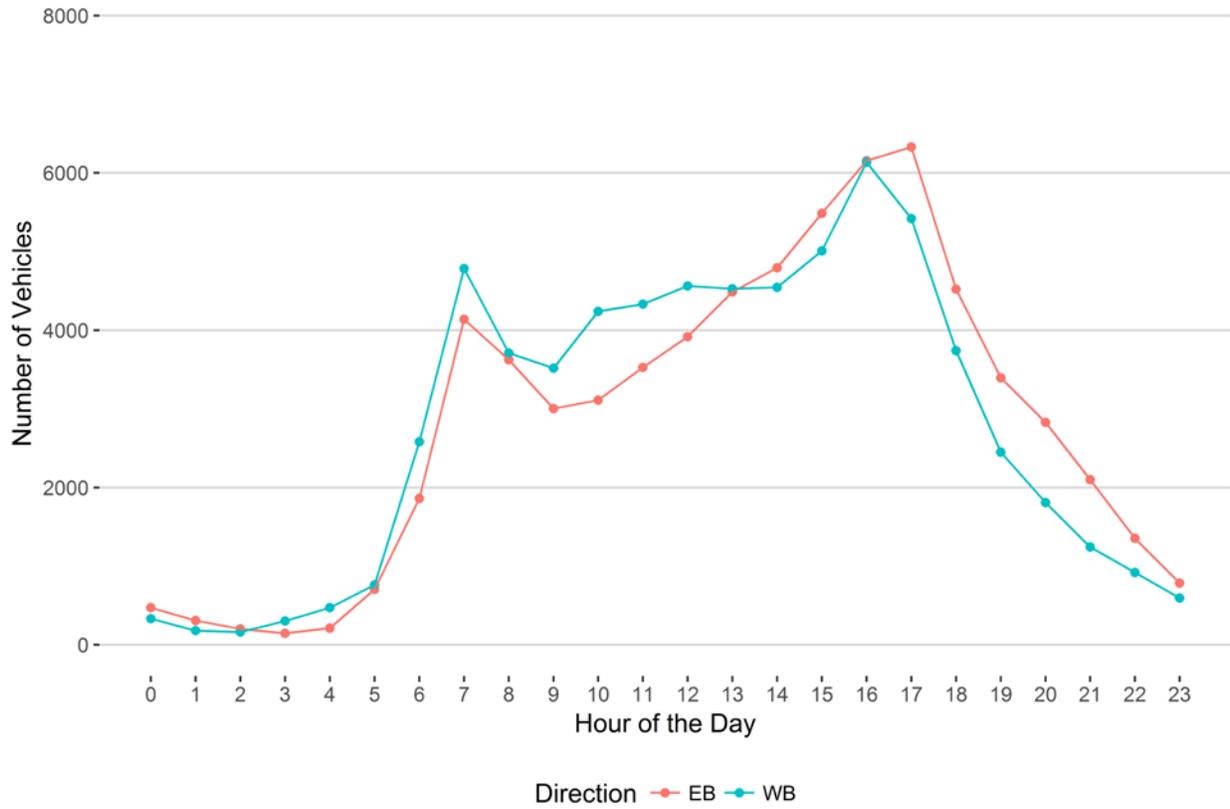


Figure 5 - Heavy Commercial Vehicles vs. Hour of the Day

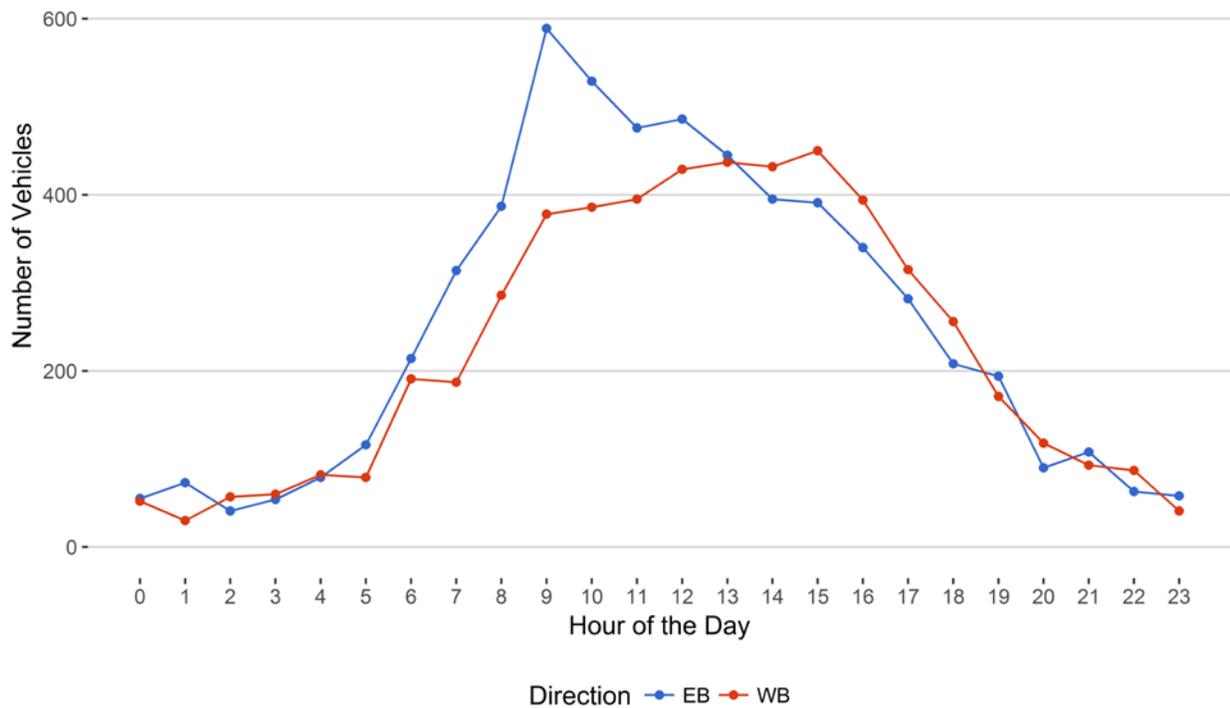




Figure 7 - Overweight Vehicles by Direction  
Hour of the Day

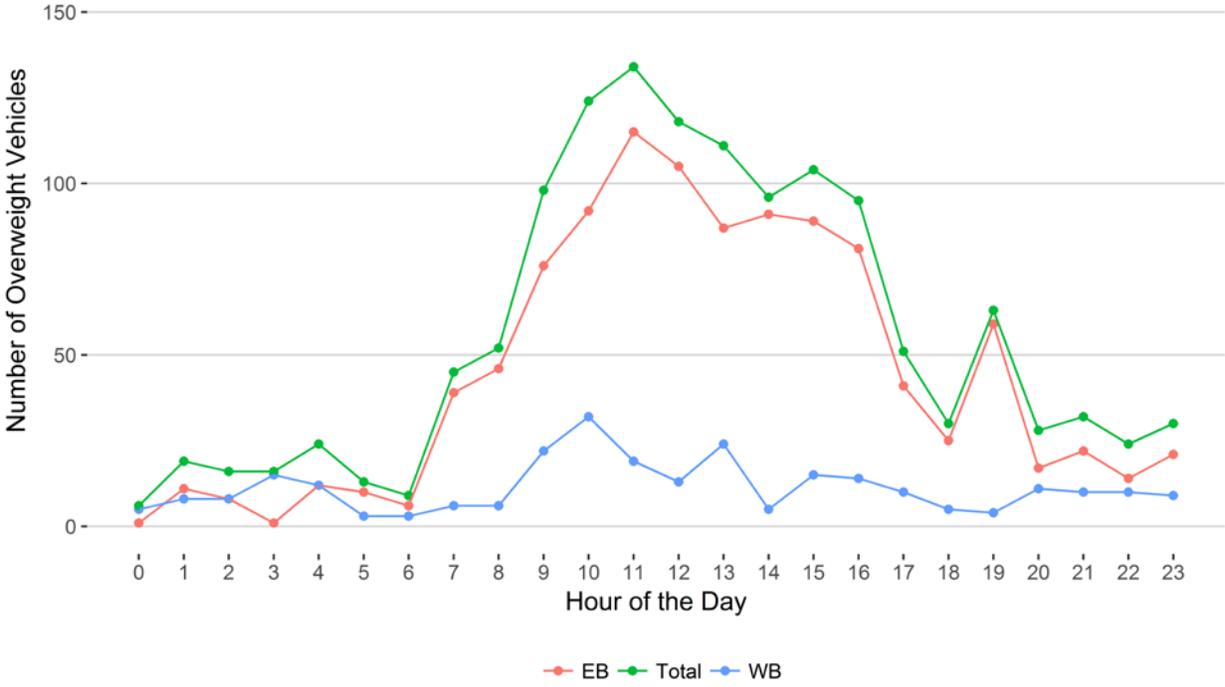
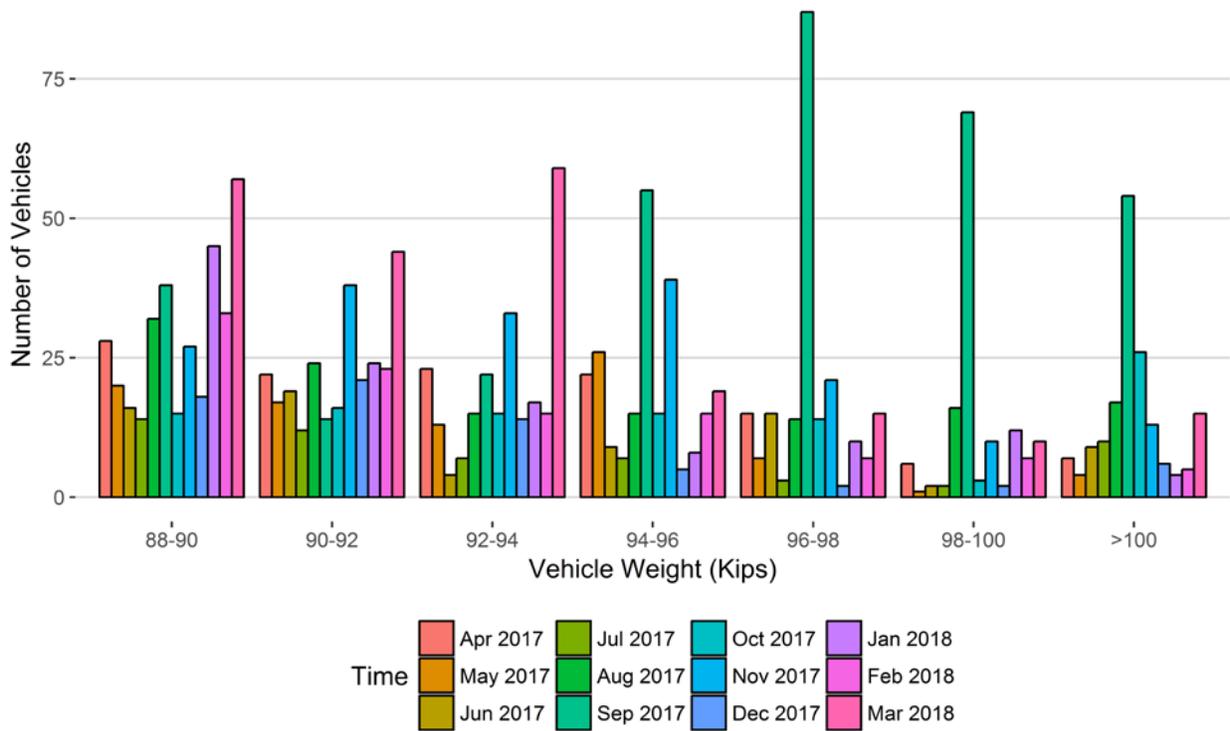
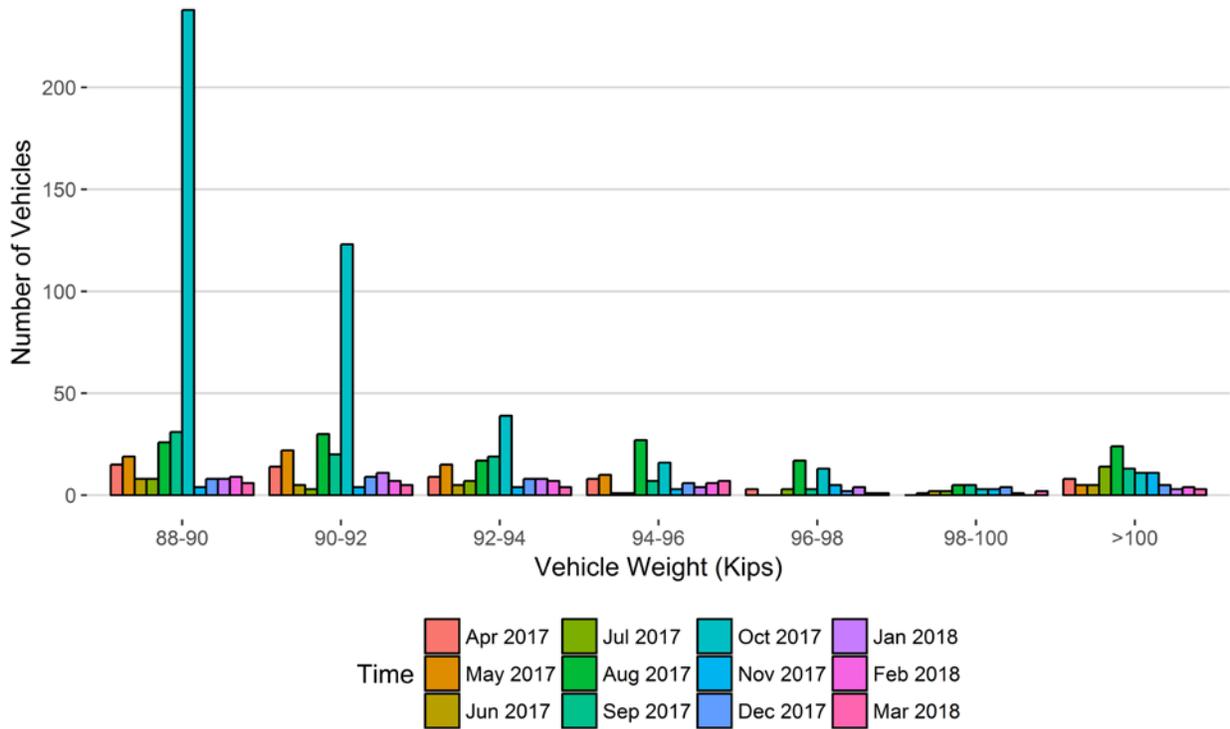


Figure 8 - Histogram of EB Vehicles Over 88,000 Pounds for Current Month



Vehicle Weights (Kips)	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	28	20	16	14	32	38	15	27	18	45	33	57
90-92	22	17	19	12	24	14	16	38	21	24	23	44
92-94	23	13	4	7	15	22	15	33	14	17	15	59
94-96	22	26	9	7	15	55	15	39	5	8	15	19
96-98	15	7	15	3	14	87	14	21	2	10	7	15
98-100	6	1	2	2	16	69	3	10	2	12	7	10
>100	7	4	9	10	17	54	26	13	6	4	5	15
<b>Total</b>	<b>123</b>	<b>88</b>	<b>74</b>	<b>55</b>	<b>133</b>	<b>339</b>	<b>104</b>	<b>181</b>	<b>68</b>	<b>120</b>	<b>105</b>	<b>219</b>

Figure 8 - Histogram of WB 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	15	19	8	8	26	31	238	4	8	8	9	6
90-92	14	22	5	3	30	20	123	4	9	11	7	5
92-94	9	15	5	7	17	19	39	4	8	8	7	4
94-96	8	10	1	1	27	7	16	3	6	4	6	7
96-98	3	0	0	3	17	3	13	5	2	4	1	1
98-100	0	1	2	2	5	5	3	3	4	1	0	2
>100	8	5	5	14	24	13	11	11	5	3	4	3
Total	57	72	26	38	146	98	443	34	42	39	34	28

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

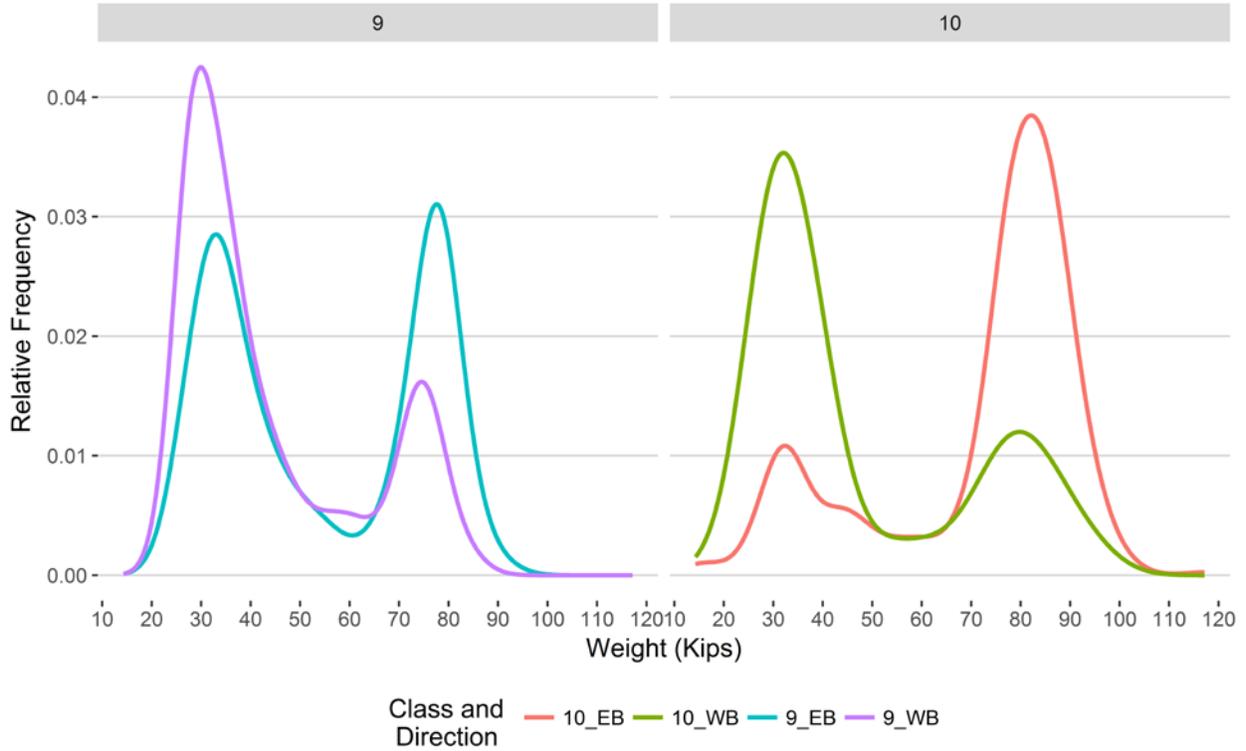


Figure 9 - Freight Percentage by Direction and Class

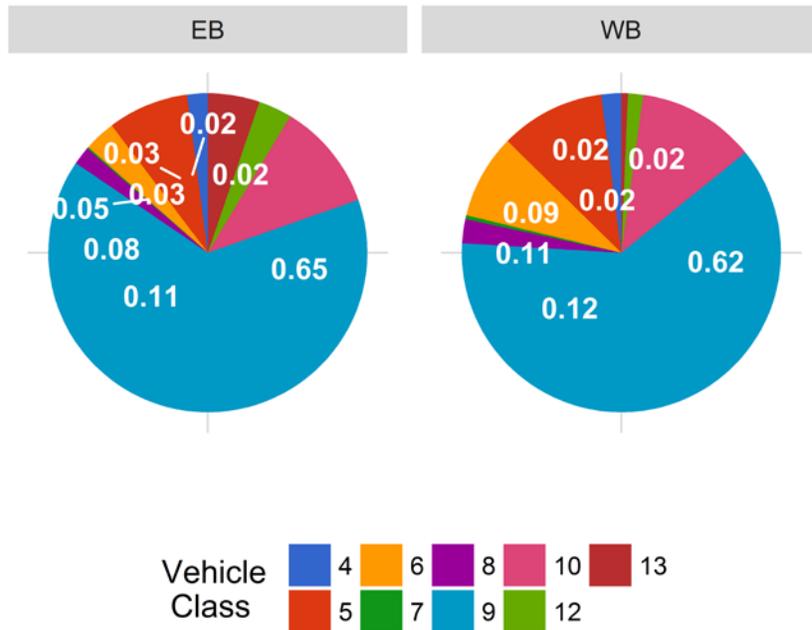


Figure 10 - Total Gross Vehicle Weight Percentage by Class and Lane

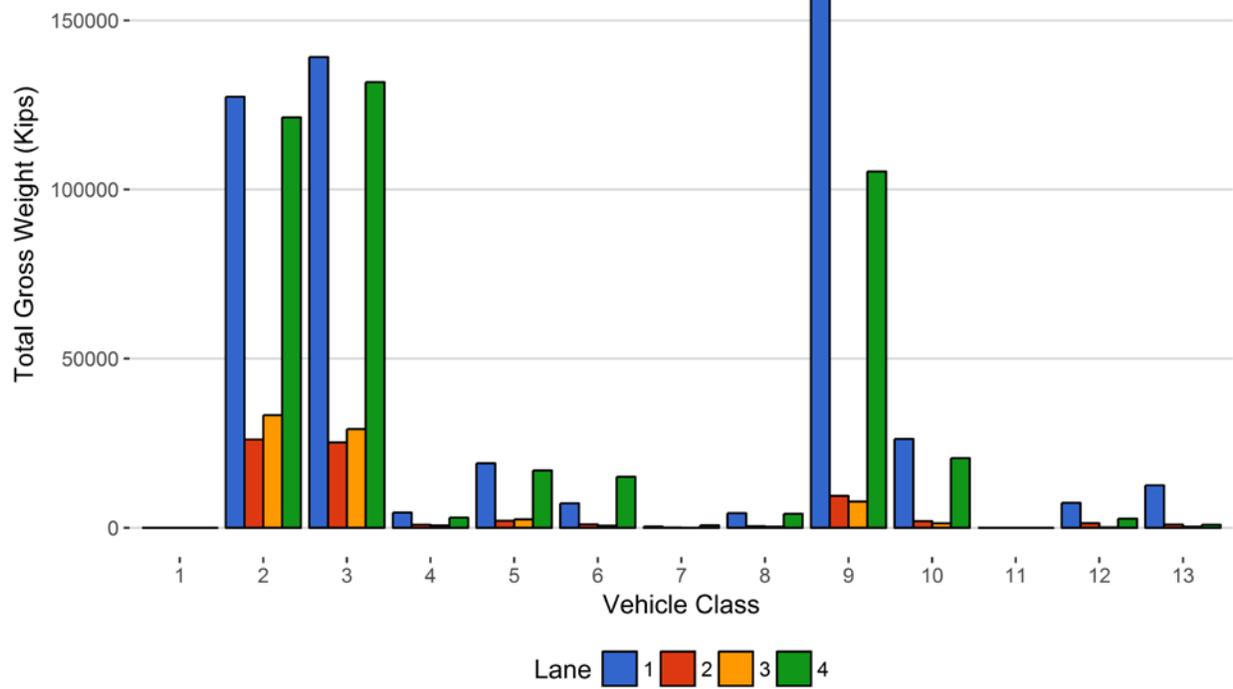


Figure 11 - Total Gross Vehicle Weight I

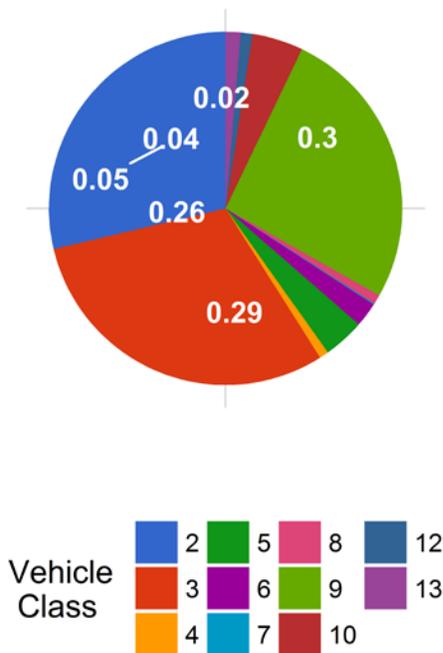


Figure 12 - Total ESALs by Class and Lane

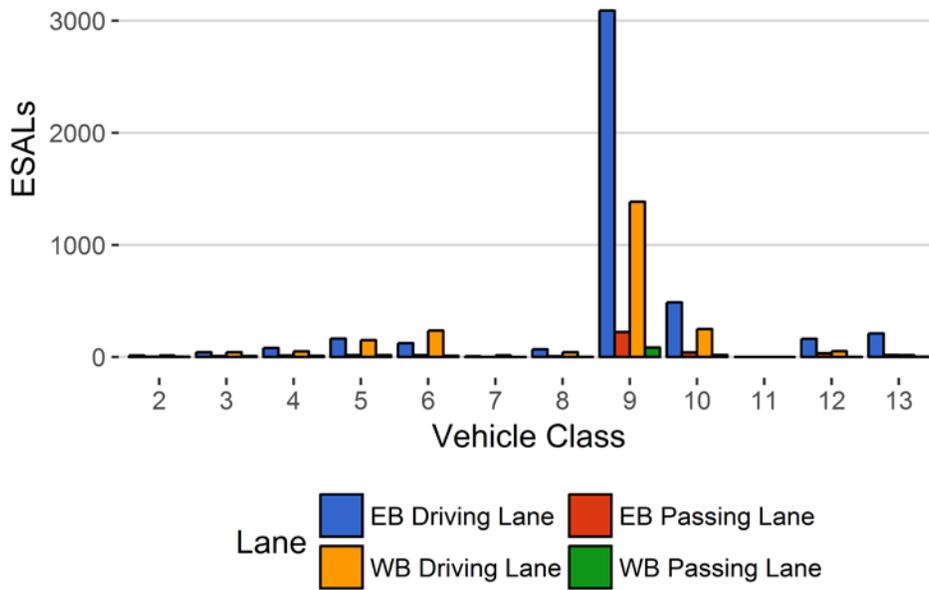
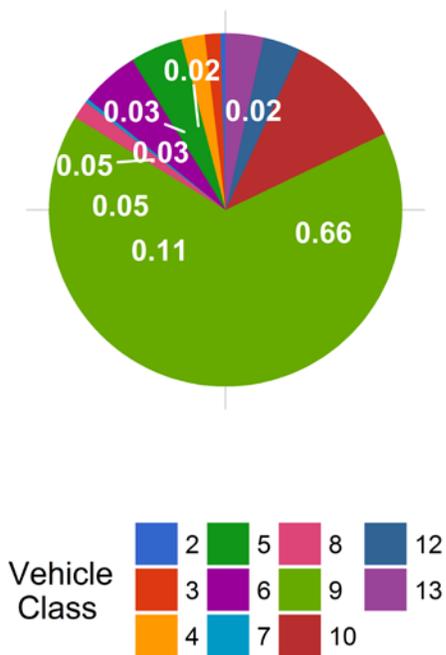


Figure 13 - ESALs by Class



**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>
November 2014	NA	NA	11.17	0.00	10.87	0.00	11.45	0.00
December 2014	NA	NA	10.82	-3.20	10.70	-1.53	11.34	-0.95
January 2015	NA	NA	11.03	-1.29	10.84	-0.29	11.30	-1.33
February 2015	NA	NA	11.09	-0.79	10.68	-1.79	11.19	-2.29
March 2015	NA	NA	10.99	-1.66	10.48	-3.60	11.56	0.95
April 2015	NA	NA	11.09	-0.76	10.59	-2.56	11.77	2.78
May 2015	NA	NA	11.26	0.80	10.84	-0.28	11.91	3.99
June 2015	NA	NA	10.96	-1.90	11.03	1.45	12.00	4.78
July 2015	NA	NA	10.90	-2.43	11.13	2.38	12.08	5.52
August 2015	NA	NA	10.86	-2.82	11.03	1.47	12.08	5.47
September 2015	NA	NA	10.85	-2.92	10.68	-1.74	11.99	4.67
October 2015	NA	NA	10.65	-4.66	10.53	-3.13	11.79	2.97
November 2015	NA	NA	11.47	2.64	10.70	-1.58	11.61	1.41
December 2015	NA	NA	11.68	4.48	10.84	-0.32	11.47	0.13
January 2016	NA	NA	11.33	1.43	10.90	0.27	11.22	-2.05
February 2016	NA	NA	11.14	-0.34	10.80	-0.64	11.30	-1.29
April 2016	NA	NA	11.44	2.37	10.96	0.81	11.56	0.96
May 2016	NA	NA	11.38	1.80	10.62	-2.31	11.74	2.47
June 2016	NA	NA	10.83	-3.09	10.94	0.63	11.77	2.80
July 2016	NA	NA	10.80	-3.39	10.69	-1.66	11.83	3.28
August 2016	NA	NA	10.58	-5.29	10.96	0.83	11.81	3.09
September 2016	NA	NA	10.80	-3.32	10.88	0.07	11.71	2.22
October 2016	NA	NA	10.58	-5.35	10.58	-2.68	11.35	-0.85
November 2016	NA	NA	11.49	2.83	10.82	-0.52	11.44	-0.11
December 2016	10.79	0.00	11.27	0.83	10.55	-2.94	10.89	-4.89

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January 2017	10.91	1.14	10.94	-2.14	10.40	-4.36	10.92	-4.67
February 2017	11.05	2.42	11.01	-1.51	10.53	-3.16	11.07	-3.37
March 2017	11.32	4.87	11.26	0.76	10.44	-3.97	11.23	-1.92
April 2017	11.44	5.99	11.47	2.65	10.66	-1.96	11.32	-1.17
May 2017	11.39	5.55	11.35	1.56	10.57	-2.80	11.45	0.02
June 2017	11.40	5.64	11.13	-0.40	11.00	1.16	11.53	0.67
July 2017	11.28	4.55	10.98	-1.72	10.78	-0.86	11.69	2.12
August 2017	11.38	5.49	11.16	-0.18	11.05	1.63	11.59	1.17
September 2017	11.21	3.85	10.76	-3.67	10.83	-0.35	11.47	0.12
October 2017	11.15	3.35	10.79	-3.47	10.49	-3.52	11.24	-1.87
November 2017	11.11	2.93	11.52	3.08	10.48	-3.64	10.86	-5.15
December 2017	10.95	1.49	11.08	-0.83	10.39	-4.38	10.85	-5.24
January 2018	11.01	2.05	11.66	4.31	10.23	-5.93	10.58	-7.61
February 2018	10.94	1.41	11.16	-0.18	10.07	-7.34	10.61	-7.39
March 2018	11.34	5.06	11.33	1.38	10.22	-5.97	10.96	-4.29

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**Table 2 Vehicle Classification Data**

<i>Vehicle Class</i>	<i>Monthly Average Daily Volume</i>	<i>Monthly Total Volume</i>	<i>Monthly Total Volume Percentage</i>	<i>Monthly Total Overweight Vehicles</i>	<i>Monthly Total Overweight Percentage</i>
1	0	0	0	0	0
2	2593	80382	54.7	0	0
3	1778	55116	37.5	0	0
4	10	320	0.2	6	0.4
5	103	3206	2.2	6	0.4
6	26	795	0.5	32	2.4
7	1	21	0	7	0.5
8	10	312	0.2	10	0.7
9	184	5701	3.9	757	56.7
10	28	867	0.6	254	19
11	0	0	0	0	0
12	5	144	0.1	120	9
13	5	163	0.1	143	10.7
<b>TOTAL</b>	<b>4743</b>	<b>147026</b>	<b>100</b>	<b>1335</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	19:12:01	10	EB	1	117.19
2018-03-09	Friday	13:12:02	10	EB	1	102.95
2018-03-07	Wednesday	15:44:30	10	EB	1	100.69
2018-03-07	Wednesday	12:07:24	10	EB	2	99.44
2018-03-11	Sunday	09:59:39	10	WB	3	98.31
2018-03-09	Friday	10:27:03	10	EB	2	97.87
2018-03-09	Friday	11:13:05	10	EB	1	97.5
2018-03-20	Tuesday	10:11:31	10	WB	4	96.48
2018-03-27	Tuesday	10:28:30	10	EB	1	96.3
2018-03-12	Monday	13:27:39	10	EB	1	96.16

**Table 4 Freight Summary**

<i>Vehicle Class</i>	<i>Direction</i>	<i>Weight of Empty Vehicle (Kips)</i>	<i>Total Number of Vehicles</i>	<i>Number of Empty Vehicles</i>	<i>Percentage of Empty Vehicles</i>	<i>Total Weight of Vehicles with Freight (Kips)</i>	<i>Total Weight of Empty Vehicles (Kips)</i>	<i>Total Weight of Freight (Tons)</i>
4	EB	15	193	32	16.6	5060	319	1323
5	EB	8	1659	319	19.2	18843	2270	4061
6	EB	19	277	34	12.3	7656	589	1520
7	EB	11.5	8	0	0	439	0	174
8	EB	31	151	63	41.7	3438	1300	355
9	EB	33	3054	652	21.3	147908	19150	34321
10	EB	33.5	393	43	10.9	26996	1264	7635
12	EB	36.5	105	1	1	8711	18	2457
13	EB	31.5	147	0	0	13511	0	4440
<b>TOTAL</b>	****	****	<b>5987</b>	<b>1144</b>	****	<b>232562</b>	****	<b>56286</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	123	21	17.1	3452	249	961
5	WB	8	1509	259	17.2	17542	1894	3771
6	WB	19	509	49	9.6	14848	845	3054
7	WB	11.5	13	0	0	725	0	288
8	WB	31	157	89	56.7	2416	2032	154
9	WB	33	2580	1020	39.5	83873	29174	16197
10	WB	33.5	464	189	40.7	16374	5552	3581
12	WB	36.5	37	4	10.8	2705	110	750
13	WB	31.5	14	0	0	1209	0	384
<b>TOTAL</b>	****	****	<b>5406</b>	<b>1631</b>	****	<b>143145</b>	****	<b>29140</b>
<b>GRAND TOTAL</b>	****	****	<b>11393</b>	<b>2775</b>	<b>315</b>	<b>375707</b>	<b>64766</b>	<b>85426</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>
2	127438	26094	33298	121330	308160	28.7
3	139156	25228	29176	131753	325313	30.3
4	4479	900	690	3011	9080	0.8
5	19071	2042	2459	16978	40549	3.8
6	7235	1010	603	15090	23940	2.2
7	368	72	0	725	1164	0.1
8	4305	433	322	4126	9186	0.9
9	157621	9438	7730	105317	280105	26.1
10	26279	1981	1332	20594	50186	4.7
12	7357	1371	136	2679	11543	1.1
13	12538	973	302	908	14720	1.4
<b>TOTAL</b>	<b>505847</b>	<b>69542</b>	<b>76048</b>	<b>422510</b>	<b>1073946</b>	<b>100</b>
<b>GVW/LANE</b>	<b>47.1</b>	<b>6.48</b>	<b>7.08</b>	<b>39.34</b>	<b>100</b>	<b>0.01</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>
2	14	3	4	14	34	0.47	9e-04
3	44	9	8	43	104	1.43	0.0039
4	80	14	11	49	155	2.14	0.99
5	164	17	18	150	349	4.81	0.22
6	123	18	11	236	388	5.35	0.99
7	6	2	0	16	25	0.34	2.02
8	69	7	2	43	122	1.68	0.8
9	3090	223	84	1385	4781	65.9	1.71
10	487	41	19	250	797	10.99	1.86
12	162	33	2	51	248	3.42	3.32
13	211	20	4	18	252	3.47	2.99
<b>TOTAL</b>	<b>4451</b>	<b>386</b>	<b>162</b>	<b>2256</b>	<b>7255</b>	<b>100</b>	<b>15</b>
<b>ESALS/LANE</b>	<b>61.4</b>	<b>5.3</b>	<b>2.2</b>	<b>31.1</b>	<b>100</b>	<b>--</b>	<b>--</b>

**Table 7 Site Summary: Volume and Vehicle Class**

<i>Month</i>	<i>Total Volume</i>	<i>Monthly ADT</i>	<i>Monthly HCAD T</i>	<i>Passenger Vehicles</i>	<i>Passenger Vehicles %</i>	<i>Heavy Commercial Vehicles</i>	<i>Heavy Commercial Vehicles %</i>	<i>Heavy Commercial Vehicles in Driving Lane %</i>	<i>Heavy Commercial Vehicles in Passing Lane %</i>
Apr 2017	159674	5322	461	145835	91.3	13839.3	8.7	93.2	6.8
May 2017	179690	5796	518	163644	91.1	16046.4	8.9	91.9	8.1
Jun 2017	184852	6162	533	168867	91.4	15985	8.6	90	10
Jul 2017	189815	6123	452	175793	92.6	14022.4	7.4	92	8
Aug 2017	190414	6142	549	173403	91.1	17011.3	8.9	91.6	8.4
Sep 2017	180227	6008	606	162055	89.9	18171.9	10.1	89.8	10.2
Oct 2017	184171	5941	796	159487	86.6	24684	13.4	88.2	11.8
Nov 2017	151412	5047	442	138141	91.2	13270.9	8.8	91.9	8.1
Dec 2017	139192	4490	300	129894	93.3	9298.2	6.7	86.8	13.2
Jan 2018	133966	4322	315	124200	92.7	9766.2	7.3	91	9
Feb 2018	128586	4592	296	120299	93.6	8287	6.4	90.2	9.8
Mar 2018	147026	4743	372	135498	92.2	11527.9	7.8	91.6	8.4
<b>TOTAL</b>	<b>1969025</b>	<b>--</b>	<b>--</b>	<b>1797116</b>	<b>--</b>	<b>171910</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>AVERAGE</b>	<b>164085</b>	<b>5391</b>	<b>470</b>	<b>149760</b>	<b>91</b>	<b>14326</b>	<b>9</b>	<b>91</b>	<b>9</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>
Apr 2017	4960	328	209	3545	9041	94	6	5.9
May 2017	5090	423	305	4508	10326	93	7	2.9
Jun 2017	4569	462	418	4251	9700	91	9	2.7
Jul 2017	3610	215	261	4173	8258	94	6	2.6
Aug 2017	4706	374	393	5821	11295	93	7	3.9
Sep 2017	4959	323	916	6416	12613	90	10	3.7
Oct 2017	5562	553	1181	11877	19173	91	9	9.2
Nov 2017	4174	329	271	3265	8039	93	7	3.2
Dec 2017	2437	331	325	2125	5219	87	13	1.8
Jan 2018	2742	416	151	2307	5616	90	10	8
Feb 2018	2005	355	104	1975	4439	90	10	3.8
Mar 2018	4473	386	162	2259	7280	92	8	6.2
<b>TOTAL</b>	<b>49287</b>	<b>4495</b>	<b>4696</b>	<b>52521</b>	<b>110999</b>	--	--	--
<b>AVERAGE</b>	<b>4107</b>	<b>375</b>	<b>391</b>	<b>4377</b>	<b>9250</b>	<b>92</b>	<b>8</b>	<b>4</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>
Apr 2017	385504	62910	65368	395469	909251
May 2017	334284	61064	56862	368752	820963
Jun 2017	506396	69561	76066	422764	1074787
Jul 2017	579170	73894	83816	523732	1260611
Aug 2017	636717	94284	104485	604489	1439975
Sep 2017	619486	108046	110675	587864	1426070
Oct 2017	588872	87852	106948	607181	1390854
Nov 2017	641135	102892	109419	668499	1521944
Dec 2017	651148	96051	132295	661776	1541269
Jan 2018	722064	131001	156238	862366	1871669
Feb 2018	522471	74817	84942	486693	1168923
Mar 2018	389939	68885	89194	375618	923635
<b>TOTAL</b>	<b>6577185</b>	<b>1031256</b>	<b>1176307</b>	<b>6565203</b>	<b>15349951</b>
<b>AVERAGE</b>	<b>548099</b>	<b>85938</b>	<b>98026</b>	<b>547100</b>	<b>1279163</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	1618	1	11.7	180	21
May 2017	2116	1.2	13.2	160	11
Jun 2017	1991	1.1	12.7	100	18
Jul 2017	1595	0.8	11.4	94	29
Aug 2017	2710	1.4	16	281	64
Sep 2017	3123	1.8	17.3	437	141
Oct 2017	5291	2.9	21.7	547	43
Nov 2017	1039	0.7	7.9	216	38
Dec 2017	678	0.5	7.4	110	17
Jan 2018	1113	0.8	11.6	159	20
Feb 2018	831	0.7	10.3	139	16
Mar 2018	1338	0.9	11.7	248	31
<b>TOTAL</b>	<b>23443</b>	<b>--</b>	<b>--</b>	<b>2671</b>	<b>449</b>
<b>AVERAGE</b>	<b>1953.6</b>	<b>1.1</b>	<b>12.7</b>	<b>222.6</b>	<b>37.4</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>
Apr 2017	61731	51916	113647	54.3	45.7
May 2017	63680	65831	129512	49.2	50.8
Jun 2017	57114	63587	120702	47.3	52.7
Jul 2017	42908	57812	100720	42.6	57.4
Aug 2017	57510	80312	137822	41.7	58.3
Sep 2017	63214	94251	157465	40.1	59.9
Oct 2017	72458	170001	242460	29.9	70.1
Nov 2017	53063	50595	103659	51.2	48.8
Dec 2017	33019	28429	61447	53.7	46.3
Jan 2018	36260	29867	66127	54.8	45.2
Feb 2018	28116	25775	53891	52.2	47.8
Mar 2018	56286	29140	85426	65.9	34.1
<b>TOTAL</b>	<b>625360</b>	<b>747517</b>	<b>1372877</b>	--	--
<b>AVERAGE</b>	<b>52113.3</b>	<b>62293.1</b>	<b>114406.4</b>	<b>48.6</b>	<b>51.4</b>