

AUGUST 2019



**WIM #27
MN 60,
MP 64.8
ST. JAMES, MN**

**MONTHLY
REPORT**



Your Destination...Our Priority



WIM Site Location

WIM #27 is located on MN 60 near St. James in Watonwan county.

System Operation

WIM #27 was operational for the entire month of August 2019. Volume was computed using all monthly data.

System Calibration

WIM #27 was most recently calibrated on 2018-04-18. Table 1 summarizes the front axle weights of class 9s by 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 ². 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: 253765 | Passenger Vehicles: 215193 | Heavy Commercial Vehicles: 38572

Monthly Average Daily Traffic (MADT): 8186 | Monthly Heavy Commercial Average Daily Traffic (MHCADT): 1244

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 Sundays, with lowest volumes reported on Tuesdays. WB vehicles typically reached highest volume levels on Sundays, 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 02 PM and 04 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 02 PM and 04 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 38572 HCVs, 5853 of them were overweight ³. These overweight HCVs contributed to 2.5% of total monthly volume, and 16.1% of total monthly

HCV volume. EB overweight vehicles typically reached highest numbers on Tuesdays, 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 10 vehicles . Overall, overweight vehicles tended to reach peak volume concentrations during typical business hours, with 86.1% 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 ⁴.

Using normal load limits ,514 EB vehicles exceeded 88,000 pounds (171 vehicles were Class 13's; 143 vehicles were Class 9's). Of vehicles traveling WB,

68 EB vehicles exceeded 88,000 pounds (33 vehicles were Class 13's; 19 vehicles were Class 14's). Refer to Table 3 for the Top 10 highest recorded GVWs from Classes 9 and 10 from August 2019.

Loaded vs. Unloaded HCVs. Figure 10 shows the GVW distributions of Class 9s and 10s in August 2019. 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 fully_loaded class 10 vehicles.

Freight Totals. A total of 367646 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. 93716, an arch pipe, is approximately 3.0 miles west of WIM #27 and Bridge No. 83030 is approximately 8.1 miles east of WIM #27. WIM #27 recorded a total of 253765 vehicles with a combined GVW of 2807070 kips (1 kip = 1,000 pounds = 0.5 tons) in August 2019. See Table 5 and Figures 12-13 for GVW information by vehicle class and lane.

Pavement Design. A total of 34192 equivalent single axle loads (ESALs) passed over the pavement at this site. Approximately 65.9% of all ESALs were recorded EB while 34.1% was observed WB. In particular, 73% of all ESALs were generated by the Class 9's (Class 9's were also responsible for generating 48% 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:

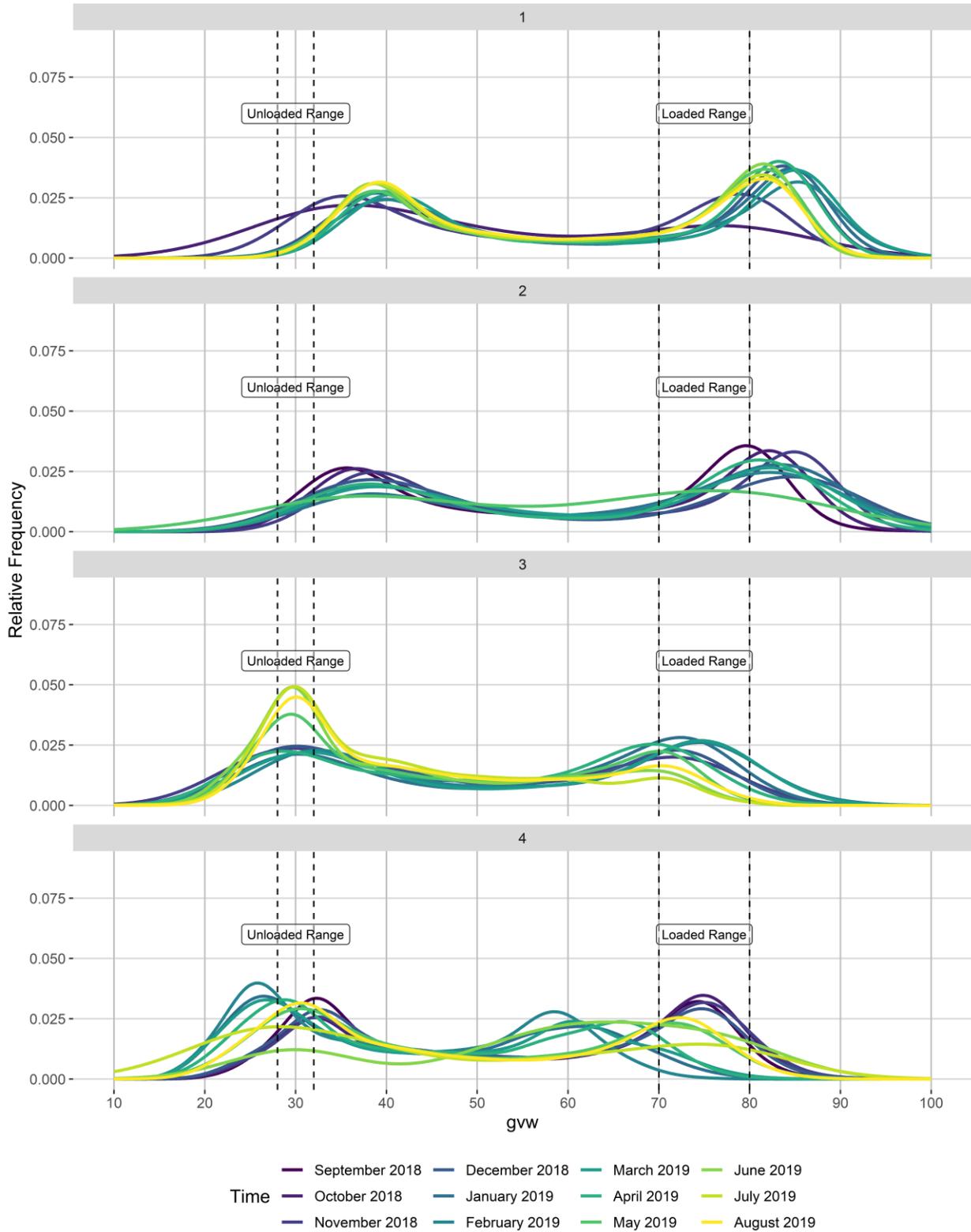
<http://www.dot.state.mn.us/traffic/data/reports-monthly-wim.html> MnDOT's vehicle

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>

- ¹ 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
- ² 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.
- ³ 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
- ⁴ 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.

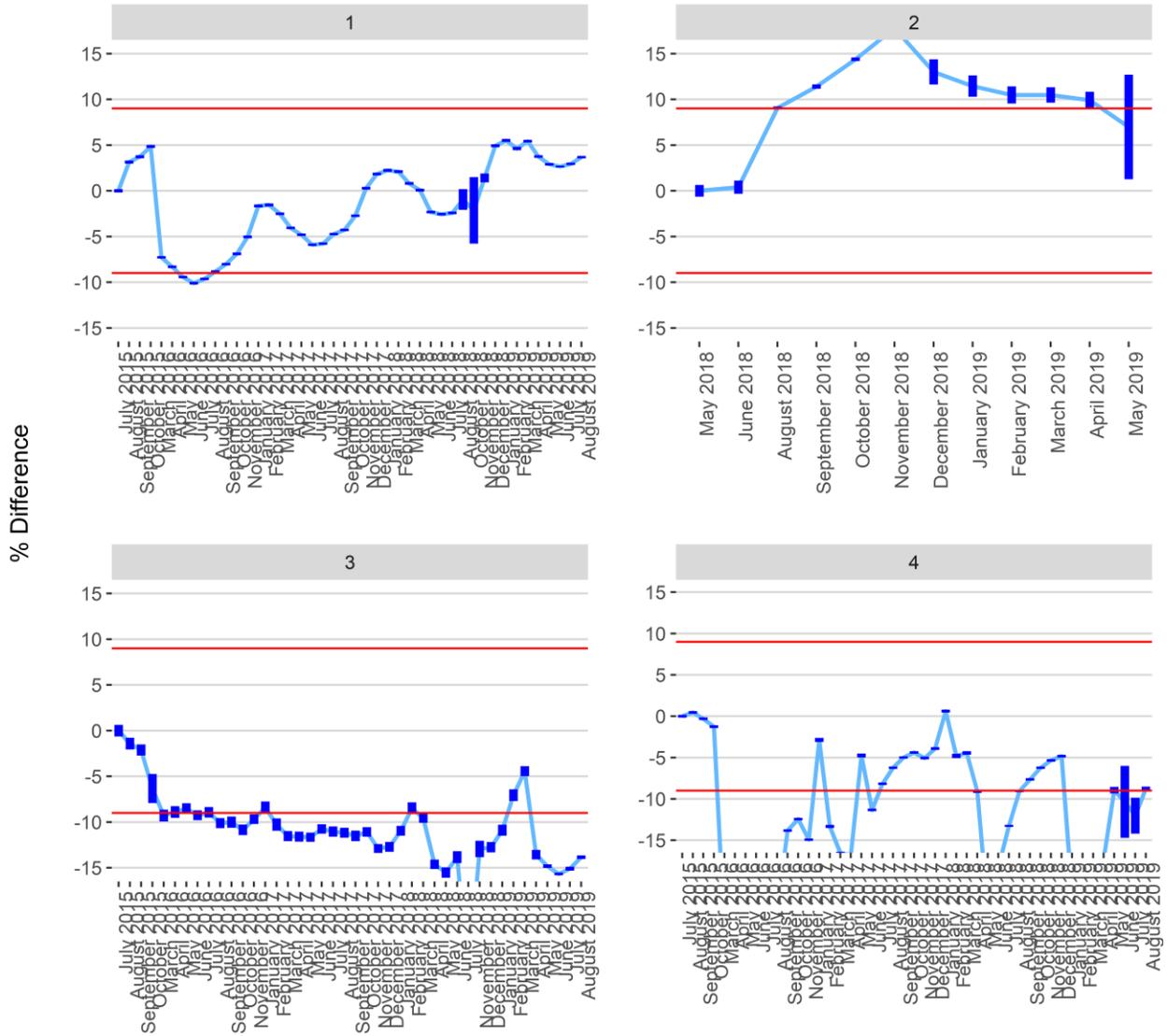
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Figure 1 - Monthly Class 9 GVW Histogram



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

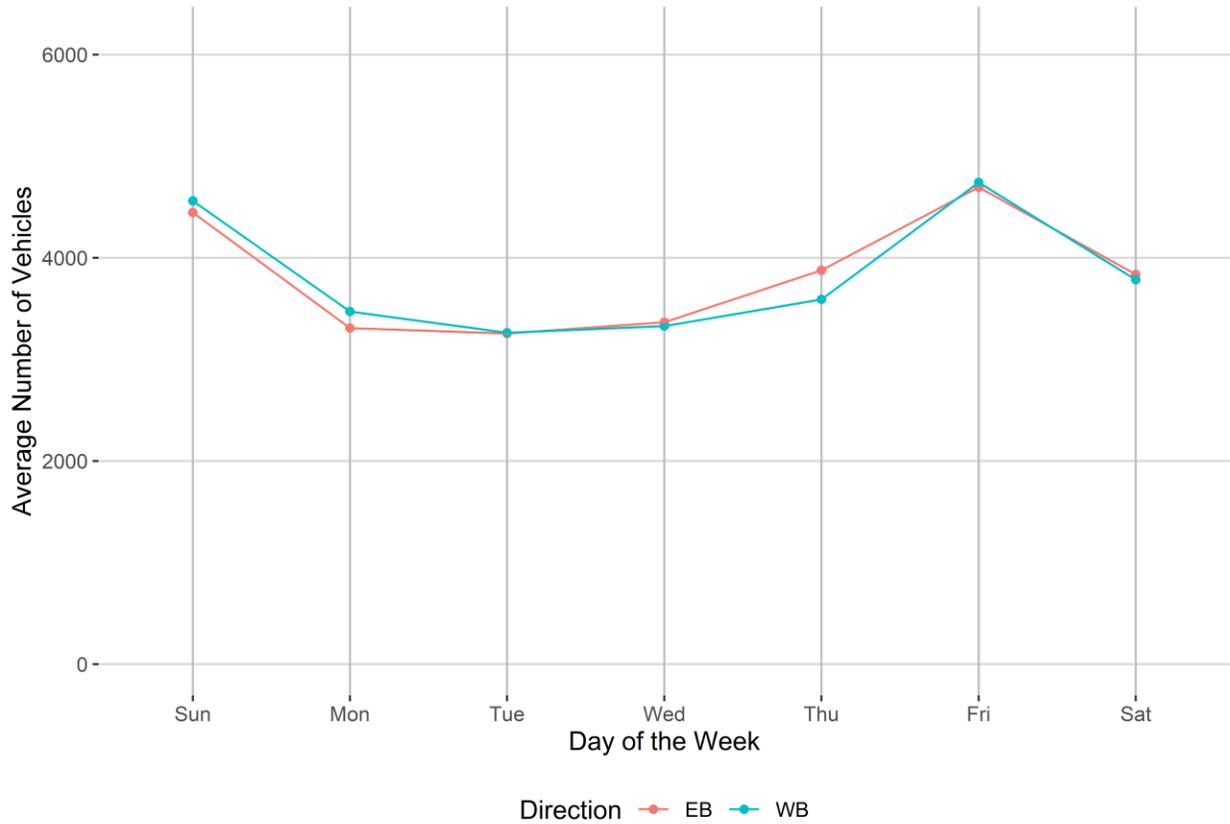


Figure 3 - Average Overweight Vehicle Volume vs. Day of the Week

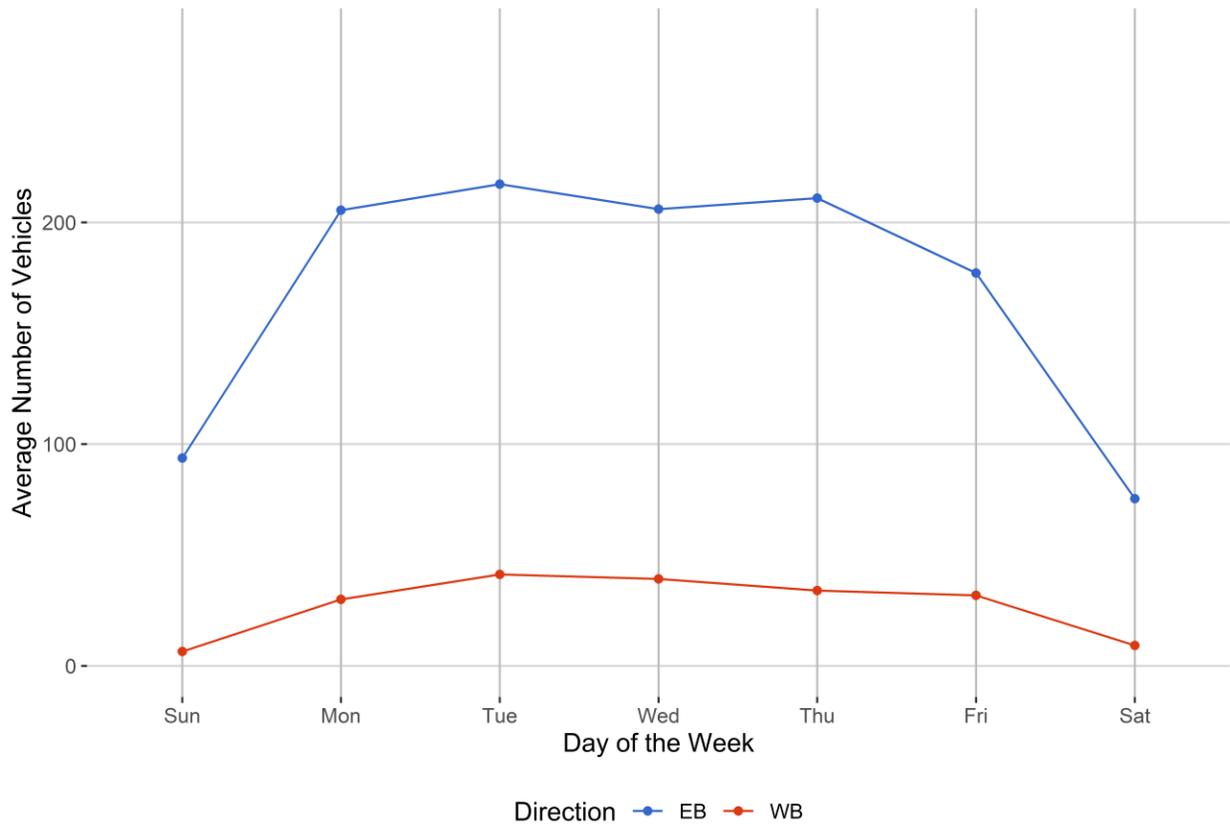


Figure 4 - Passenger Vehicles vs. Hour of the Day

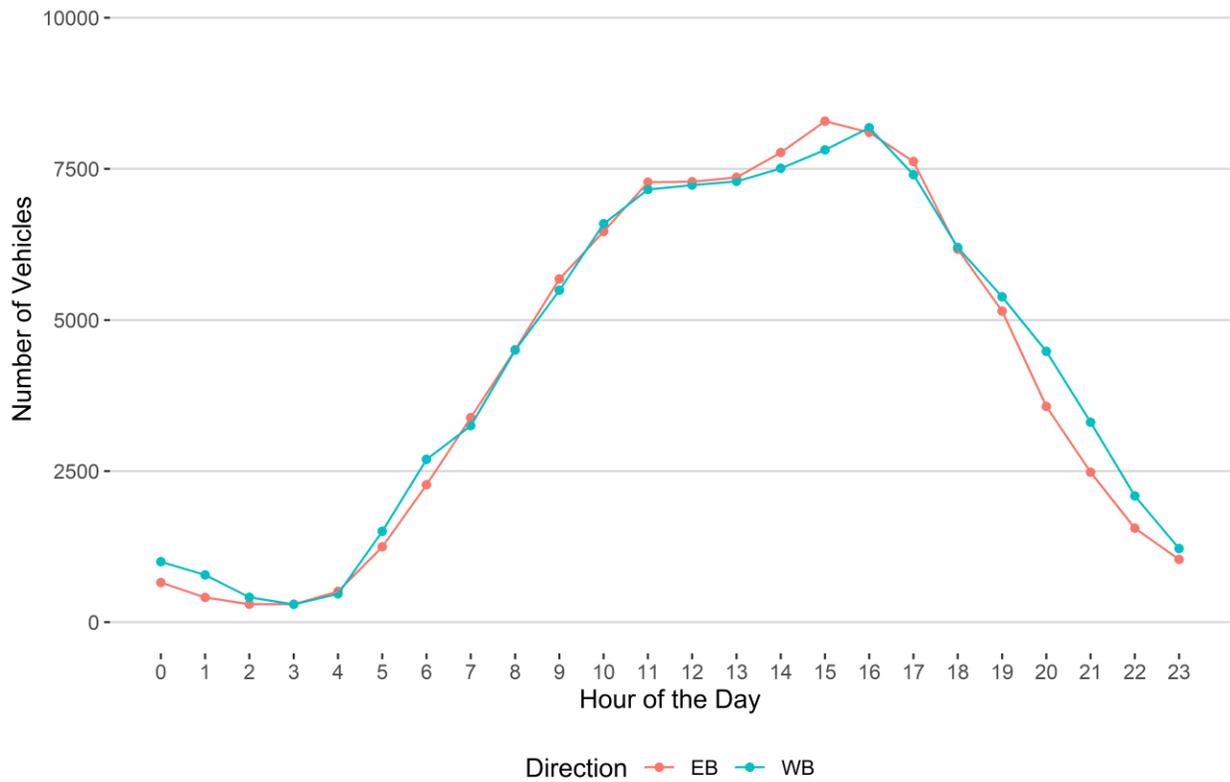


Figure 5 - Heavy Commercial Vehicles vs. Hour of the Day

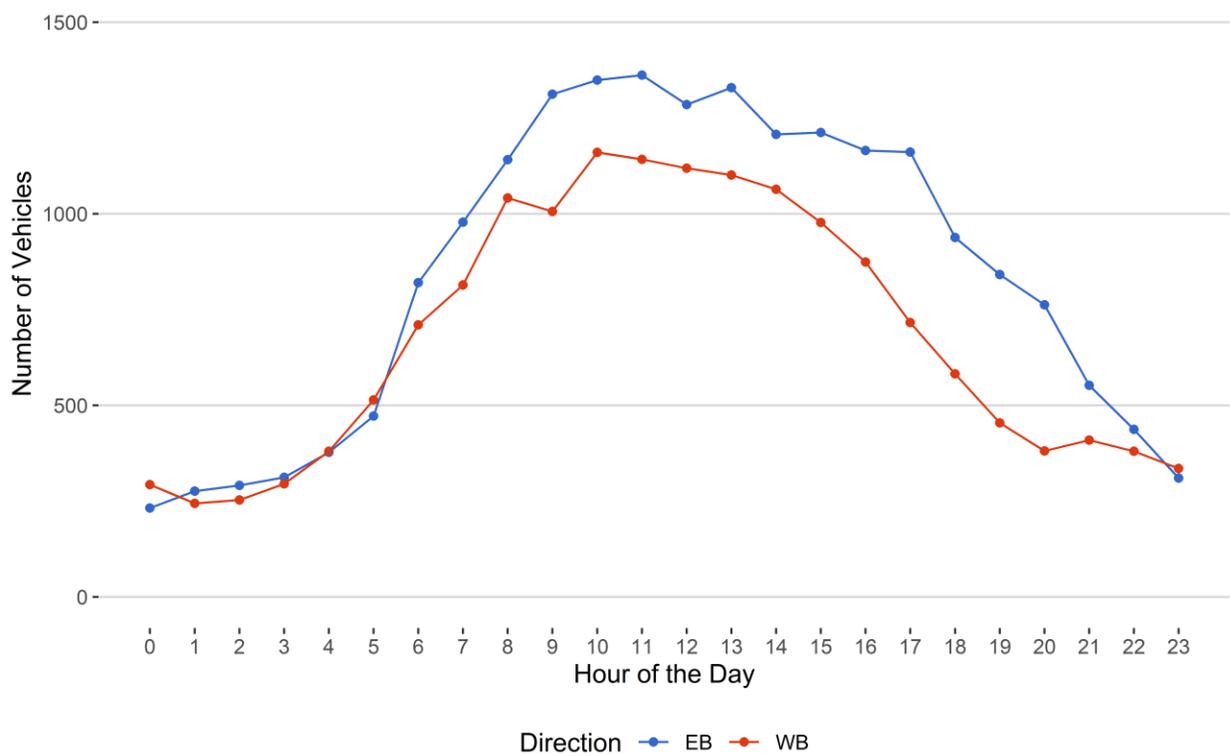


Figure 6 - Overweight Vehicles by Class vs. Hour of the Day

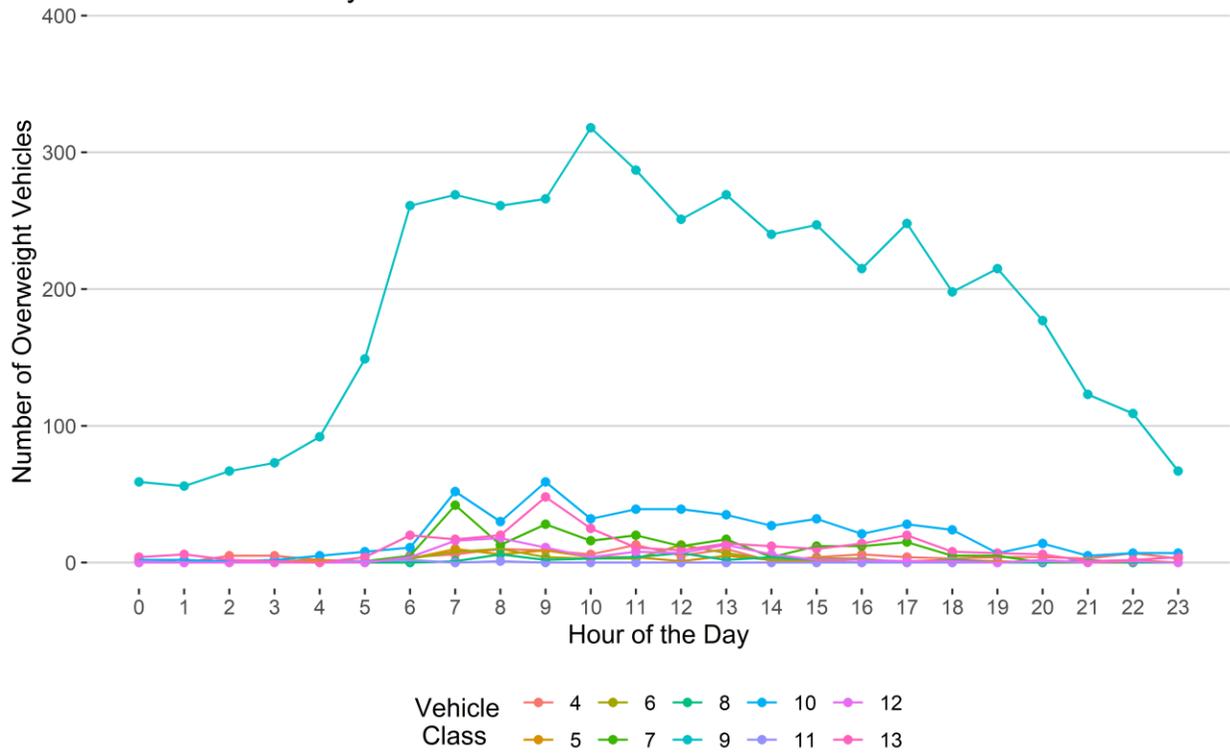


Figure 7 - Overweight Vehicles by Direction
Hour of the Day

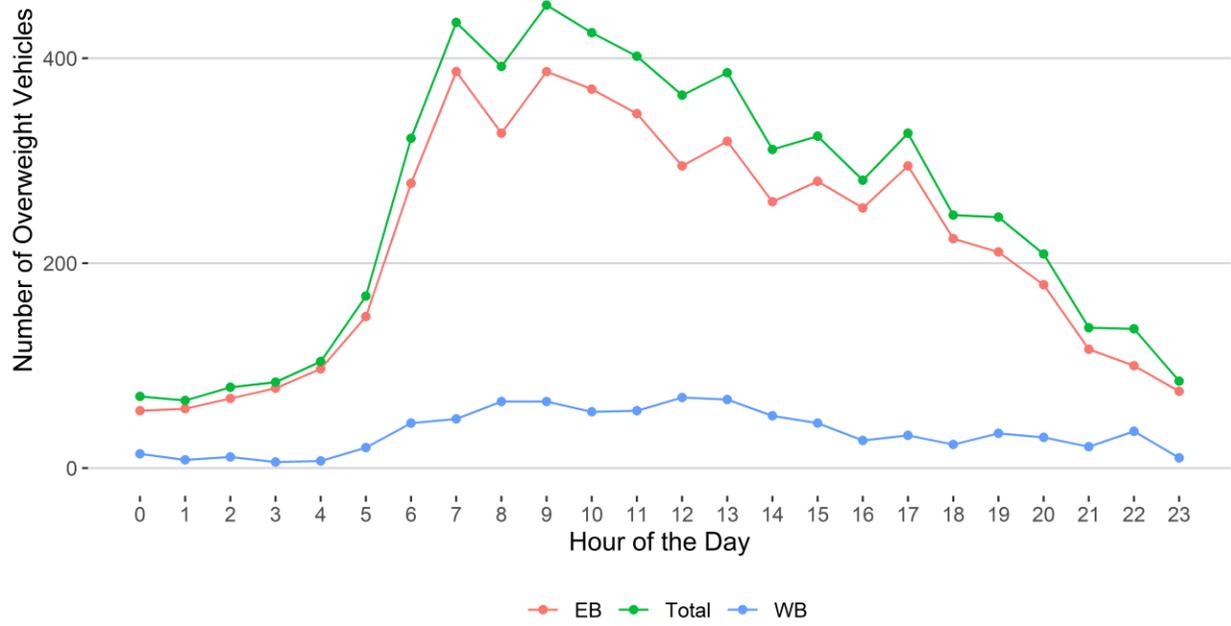
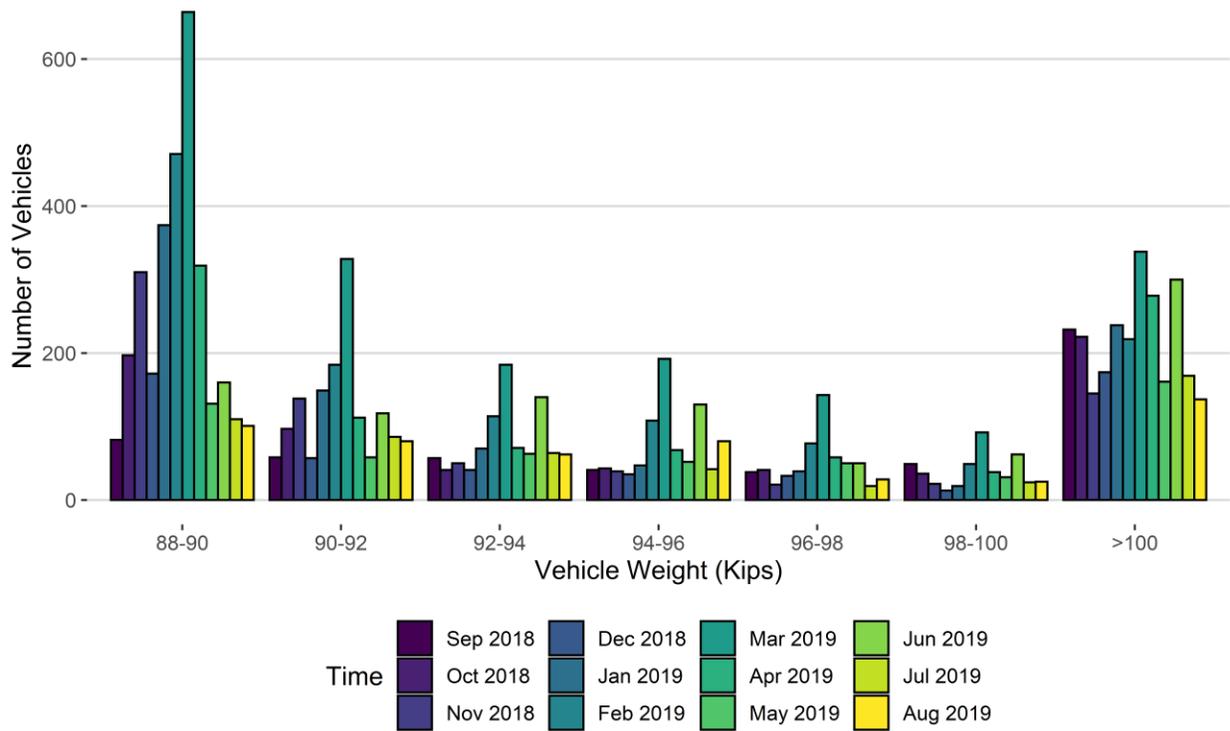
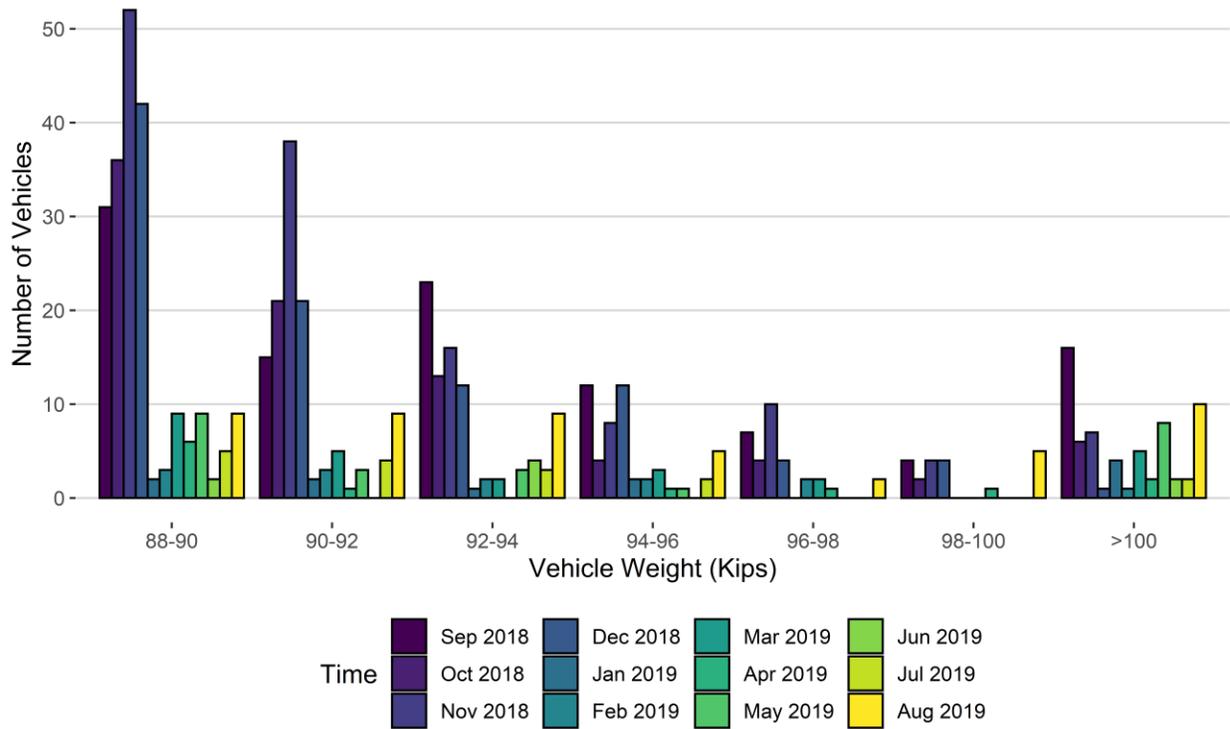


Figure 8 - Histogram of EB Vehicles Over 88,000 Pounds for Current Month



Vehicle Weights (Kips)	Sep 2018	Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019
88-90	82	197	310	172	374	471	664	319	131	160	110	101
90-92	58	97	138	57	149	184	328	112	58	118	86	80
92-94	57	41	50	41	70	114	184	71	63	140	64	62
94-96	41	43	39	35	47	108	192	68	52	130	42	80
96-98	38	41	21	33	39	77	143	58	50	50	19	28
98-100	49	36	22	13	19	49	92	38	31	62	24	25
>100	232	222	145	174	238	219	338	278	161	300	169	137
Total	557	677	725	525	936	1222	1941	944	546	960	514	513

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



Vehicle Weights (Kips)	Sep 2018	Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019
88-90	31	36	52	42	2	3	9	6	9	2	5	9
90-92	15	21	38	21	2	3	5	1	3	0	4	9
92-94	23	13	16	12	1	2	2	0	3	4	3	9
94-96	12	4	8	12	2	2	3	1	1	0	2	5
96-98	7	4	10	4	0	2	2	1	0	0	0	2
98-100	4	2	4	4	0	0	0	1	0	0	0	5
>100	16	6	7	1	4	1	5	2	8	2	2	10
Total	108	86	135	96	11	13	26	12	24	8	16	49

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

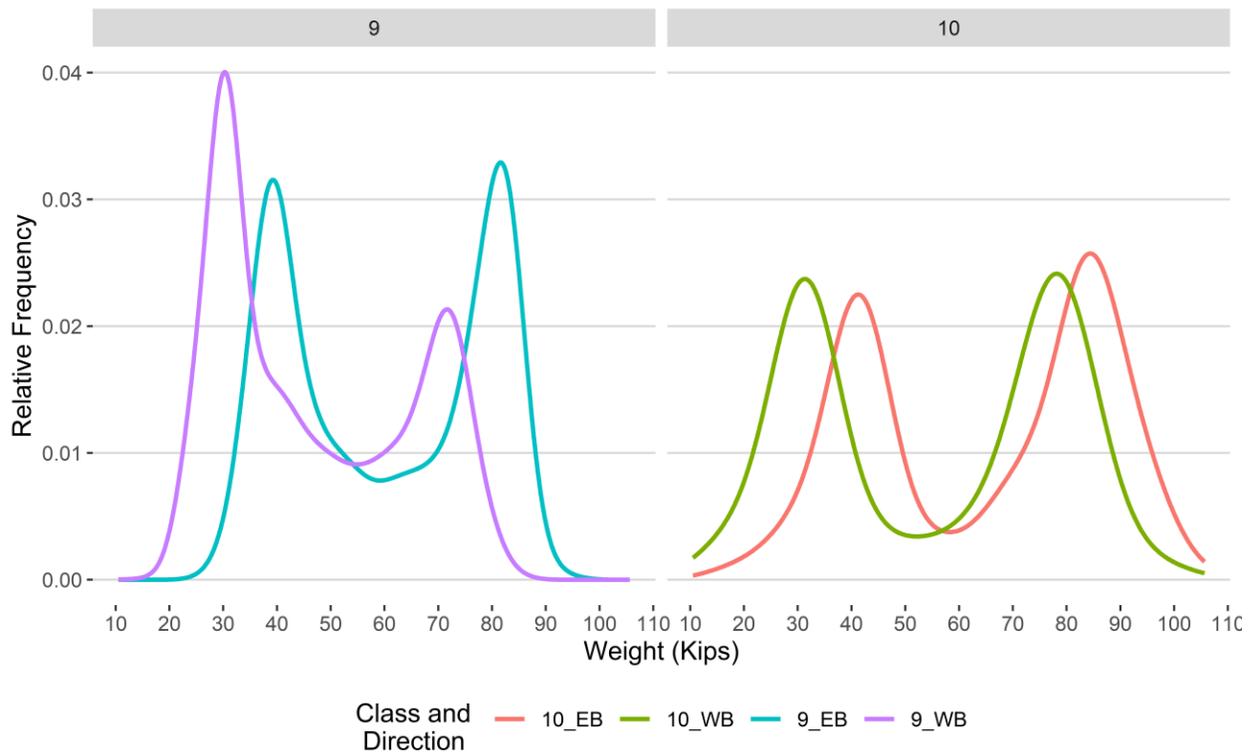


Figure 9 - Freight Percentage by Direction and Class

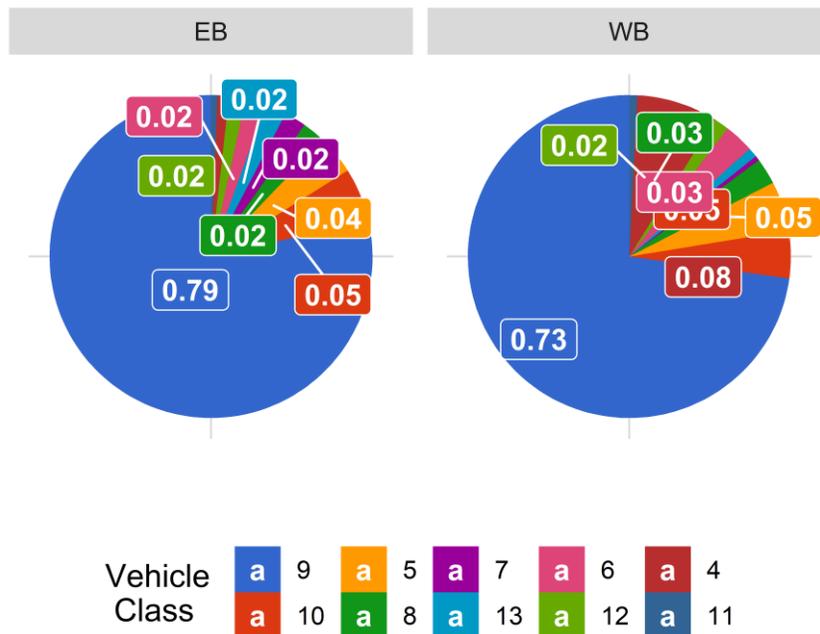


Figure 10 - Total Gross Vehicle Weight Percentage by Class and Lane

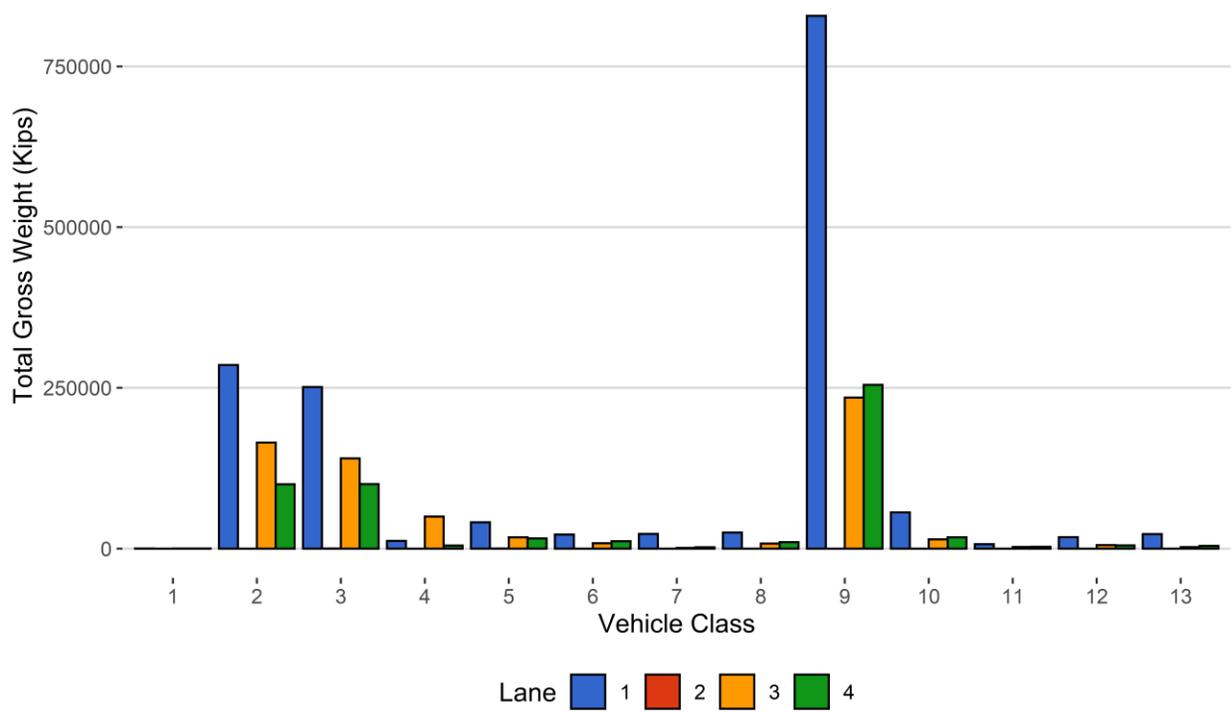


Figure 11 - Total Gross Vehicle Weight t

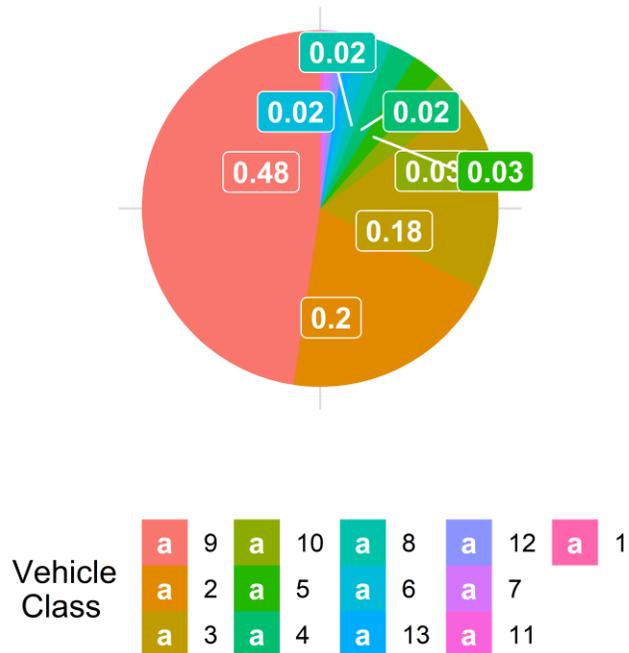


Figure 12 - Total ESALs by Class and Lane

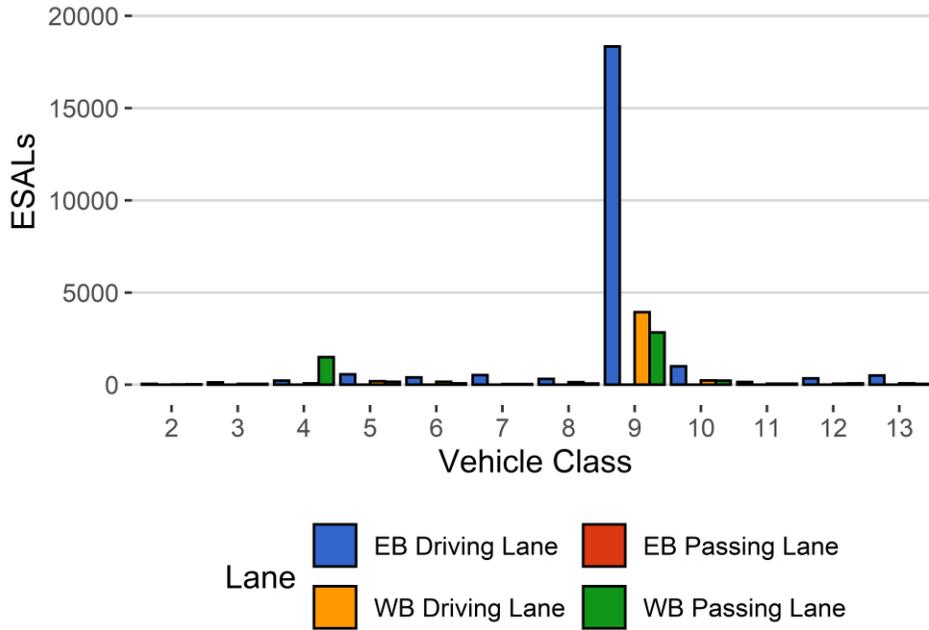


Figure 13 - ESALs by Class

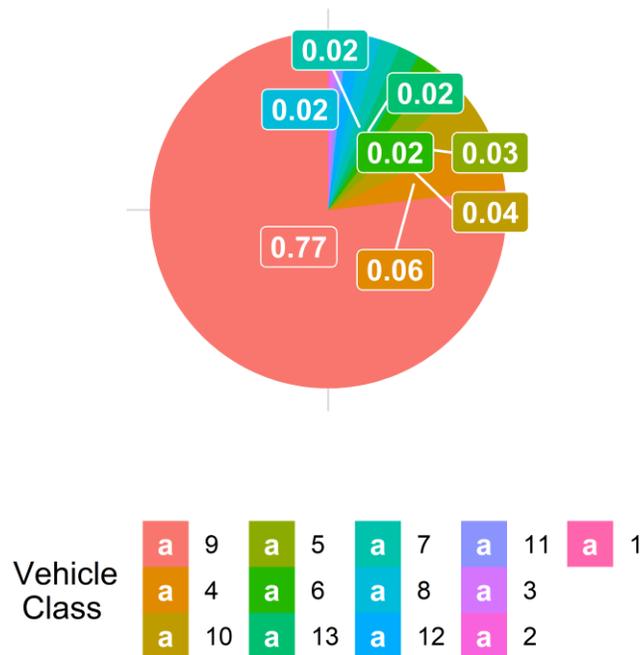


Table 1 Class 9 Front Axle Weight by Lane

<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>
July 2015	11.23	0.00	NA	NA	12.02	0.00	11.77	0.00
August 2015	11.58	3.14	NA	NA	11.85	-1.42	11.83	0.45
September 2015	11.64	3.73	NA	NA	11.77	-2.12	11.74	-0.31
October 2015	11.77	4.84	NA	NA	11.26	-6.34	11.63	-1.26
March 2016	10.41	-7.28	NA	NA	10.90	-9.29	8.69	-26.23
April 2016	10.29	-8.32	NA	NA	10.95	-8.90	8.97	-23.79
May 2016	10.17	-9.43	NA	NA	11.00	-8.51	8.92	-24.24
June 2016	10.09	-10.11	NA	NA	10.91	-9.26	8.54	-27.43
July 2016	10.14	-9.64	NA	NA	10.95	-8.93	8.69	-26.23
August 2016	10.23	-8.84	NA	NA	10.81	-10.12	9.00	-23.54
September 2016	10.33	-8.02	NA	NA	10.82	-10.01	10.15	-13.83
October 2016	10.45	-6.90	NA	NA	10.72	-10.86	10.31	-12.44
November 2016	10.66	-5.04	NA	NA	10.86	-9.69	10.02	-14.93
January 2017	11.04	-1.66	NA	NA	11.01	-8.41	11.44	-2.87
February 2017	11.05	-1.55	NA	NA	10.79	-10.28	10.20	-13.33
March 2017	10.94	-2.52	NA	NA	10.63	-11.54	9.82	-16.56
April 2017	10.77	-4.06	NA	NA	10.63	-11.60	9.80	-16.77
May 2017	10.69	-4.81	NA	NA	10.62	-11.66	11.21	-4.76
June 2017	10.56	-5.91	NA	NA	10.73	-10.76	10.44	-11.33
July 2017	10.58	-5.78	NA	NA	10.69	-11.05	10.81	-8.17
August 2017	10.69	-4.74	NA	NA	10.68	-11.18	11.04	-6.24
September 2017	10.75	-4.28	NA	NA	10.64	-11.51	11.19	-4.99
October 2017	10.92	-2.73	NA	NA	10.69	-11.08	11.26	-4.39
November 2017	11.26	0.29	NA	NA	10.47	-12.89	11.18	-5.06
December 2017	11.43	1.83	NA	NA	10.49	-12.71	11.31	-3.91
January	11.48	2.24	NA	NA	10.70	-10.96	11.85	0.62

2018								
February 2018	11.46	2.10	NA	NA	11.00	-8.49	11.21	-4.81
March 2018	11.32	0.80	NA	NA	10.87	-9.56	11.25	-4.44
April 2018	11.23	0.07	NA	NA	10.26	-14.62	10.71	-9.08
May 2018	10.97	-2.33	10.73	0.00	10.16	-15.52	8.99	-23.61
June 2018	10.94	-2.56	10.77	0.39	10.36	-13.85	9.62	-18.28
July 2018	10.95	-2.42	NA	NA	8.76	-27.15	10.21	-13.26
August 2018	11.12	-0.96	11.70	9.05	NA	NA	10.71	-9.07
October 2018	10.99	-2.14	12.27	14.38	NA	NA	11.04	-6.24
November 2018	11.38	1.41	12.64	17.79	10.47	-12.95	11.15	-5.34
December 2018	11.78	4.92	12.12	13.00	10.49	-12.76	11.21	-4.83
January 2019	11.84	5.50	11.96	11.45	10.71	-10.89	9.24	-21.53
February 2019	11.75	4.62	11.85	10.48	11.17	-7.06	8.89	-24.48
March 2019	11.84	5.42	11.85	10.47	11.49	-4.43	9.54	-18.98
April 2019	11.65	3.74	11.79	9.92	10.39	-13.57	9.73	-17.34
May 2019	11.55	2.90	11.48	6.98	10.24	-14.82	10.72	-8.94
June 2019	11.52	2.65	NA	NA	10.14	-15.68	10.55	-10.36
July 2019	11.56	2.94	NA	NA	10.21	-15.10	10.36	-12.03
August 2019	11.64	3.68	NA	NA	10.36	-13.84	10.74	-8.74

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	3	99	0	0	0
2	4460	138254	54.5	0	0
3	2479	76840	30.3	0	0
4	51	1581	0.6	117	2
5	176	5449	2.1	57	1
6	49	1533	0.6	61	1
7	14	437	0.2	207	3.5
8	47	1447	0.6	37	0.6
9	826	25595	10.1	4517	77.2
10	49	1526	0.6	489	8.4
11	8	233	0.1	7	0.1
12	15	454	0.2	96	1.6
13	10	317	0.1	265	4.5
TOTAL	8186	253765	100	5853	100

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>
2019-08-20	Tuesday	08:52:04	10	WB	4	117.24
2019-08-14	Wednesday	09:58:08	9	WB	4	114.64
2019-08-20	Tuesday	10:43:22	9	WB	4	114.62
2019-08-15	Thursday	11:42:24	9	WB	4	114.34
2019-08-07	Wednesday	16:40:44	9	WB	4	113.91
2019-08-02	Friday	11:48:37	10	WB	4	108.88
2019-08-19	Monday	13:55:07	10	WB	4	108.52
2019-08-08	Thursday	11:52:16	9	WB	4	107.86
2019-08-20	Tuesday	03:57:17	10	EB	1	105.65
2019-08-07	Wednesday	09:35:08	9	WB	4	105.37

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	455	44	9.7	11397	604	2616
5	EB	8	2681	125	4.7	39930	922	9741
6	EB	19	679	14	2.1	21616	248	4490
7	EB	11.5	352	0	0	22849	0	9401
8	EB	31	752	233	31	20169	4742	2040
9	EB	33	13726	336	2.4	818099	10439	188115
10	EB	33.5	867	50	5.8	55084	1336	13857
11	EB	36.5	124	7	5.6	6605	172	1167
12	EB	36.5	259	6	2.3	17488	134	4127
13	EB	31.5	226	0	0	22459	0	7670
TOTAL	****	****	20121	815	****	1035697	****	243224
<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	1036	88	8.5	53168	1158	19474
5	WB	8	2456	343	14	30970	2506	7033
6	WB	19	766	176	23	16899	3009	2844
7	WB	11.5	60	0	0	3203	0	1257
8	WB	31	612	368	60.1	9257	8486	846
9	WB	33	10404	3681	35.4	383863	105787	81002
10	WB	33.5	572	215	37.6	25594	6264	6817
11	WB	36.5	96	8	8.3	5149	184	968
12	WB	36.5	169	0	0	10432	0	2132
13	WB	31.5	73	0	0	6396	0	2048
TOTAL	****	****	16244	4879	****	544930	****	124422
GRAND TOTAL	****	****	36365	5694	250	1580627	145994	367646

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	80	0	22	26	128	0
2	285492	4	164953	99977	550427	19.9
3	251307	32	140345	100286	491971	17.8
4	12002	0	49711	4615	66327	2.4
5	40840	11	17594	15882	74328	2.7
6	21864	0	8404	11504	41772	1.5
7	22849	0	1153	2050	26053	0.9
8	24911	0	7763	9980	42654	1.5
9	828539	0	234936	254714	1318189	47.6
10	56420	0	14391	17467	88278	3.2
11	6778	0	2583	2750	12111	0.4
12	17622	0	5394	5038	28054	1
13	22459	0	2211	4185	28855	1
TOTAL	1591162	48	649461	528475	2769146	100
GVW/LANE	57.46	0	23.45	19.08	100	0

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	0.0106
2	41	0	20	13	74	0.23	0.0012
3	129	0	49	43	221	0.68	0.0061
4	227	0	1501	73	1800	5.51	2.41
5	560	0	160	188	908	2.78	0.35
6	397	0	80	156	632	1.94	0.88
7	520	0	36	35	591	1.81	2.84
8	320	0	62	136	518	1.59	0.76
9	18342	0	2839	3933	25114	76.87	2.08
10	998	0	224	234	1456	4.46	2.02
11	151	0	54	57	262	0.8	2.32
12	344	0	73	60	477	1.46	2.2
13	500	0	45	73	618	1.89	4.01
TOTAL	22528	0	5142	5001	32671	100	20
ESALS/LANE	69	0	15.7	15.3	100	-	-

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>
Sep 2018	182915	6097	1161	148079	81	34835.9	19	45.5	54.5
Oct 2018	187358	6044	1146	151826	81	35532	19	49.1	50.9
Nov 2018	178317	5944	956	149623	83.9	28694.4	16.1	65.1	34.9
Dec 2018	167266	5396	909	139093	83.2	28172.8	16.8	91.7	8.3
Jan 2019	144335	4656	951	114866	79.6	29469	20.4	93.7	6.3
Feb 2019	129514	4626	925	103624	80	25889.8	20	92.1	7.9
Mar 2019	167692	5409	991	136965	81.7	30726.7	18.3	91.4	8.6
Apr 2019	181026	6034	1016	150536	83.2	30489.7	16.8	89.4	10.6
May 2019	213594	6890	1085	179966	84.3	33628	15.7	67.9	32.1
Jun 2019	228705	7624	1036	197617	86.4	31087.6	13.6	67.8	32.2
Jul 2019	240734	7766	1013	209341	87	31392.7	13	69.4	30.6
Aug 2019	253765	8186	1244	215193	84.8	38572.2	15.2	76.7	23.3
TOTAL	2275221	-	-	1896729	-	378491	-	-	-
AVERAGE	189602	6223	1036	158061	83	31541	17	75	25

###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>
Sep 2018	0	211935	0	12648	224583	6	94	15.3
Oct 2018	64	63810	1	14608	78483	19	81	9.9
Nov 2018	2583	1168550	295	13398	1184826	1	99	14.7
Dec 2018	15873	578548	780	11257	606458	4	96	4.7
Jan 2019	19913	106314	845	4721	131793	19	81	6.3

Feb 2019	17996	30201	939	2581	51717	40	60	25.5
Mar 2019	24521	14098	1197	4598	44414	66	34	29.8
Apr 2019	22506	9489	954	4149	37098	72	28	10.2
May 2019	23198	77	5065	1377	29717	83	17	5
Jun 2019	44270	0	10778	53	55101	80	20	4.2
Jul 2019	21800	0	6454	162	28416	77	23	4.9
Aug 2019	22546	0	6633	5013	34192	81	19	5.8
TOTAL	215272	2183021	33941	74563	2506797	-	-	-
AVERAGE	17939	181918	2828	6214	208900	46	54	11

###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>
Sep 18	44	1368941	18	1126942	2495945
Oct 18	5928	1219407	64	1155637	2381036
Nov 18	213558	895490	45406	1067537	2221991
Dec 18	936084	155229	108977	929969	2130259
Jan 19	1044413	70226	87357	662346	1864342
Feb 19	928605	63483	81834	471789	1545712
Mar 19	1216422	96811	120190	656042	2089466
Apr 19	1244314	120017	125942	627946	2118218
May 19	1475893	3230	746759	115061	2340943
Jun 19	2969408	16	1530595	6134	4506154
Jul 19	1515563	35	795934	18538	2330070
Aug 19	1591834	48	686107	529080	2807070
TOTAL	13142067	3992933	4329183	7367021	28831205
AVERAGE	1095172	332744	360765	613918	2402600

###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>
Sep 2018	6349	3.6	17.7	1374	825
Oct 2018	6442	3.8	19.6	918	383
Nov 2018	7311	4.6	23.9	2103	1234
Dec 2018	6426	4.1	22.5	1191	706
Jan 2019	5368	4.1	19.6	1056	357
Feb 2019	4531	4.1	20	1266	297
Mar 2019	6744	4.4	23.7	1982	448
Apr 2019	6228	3.7	22	982	341
May 2019	5775	2.9	18.6	576	205

Jun 2019	11140	2.7	19.8	988	368
Jul 2019	5399	2.5	18.8	546	195
Aug 2019	6051	2.5	16.4	582	180
TOTAL	77764	-	-	13564	5539
AVERAGE	6480.3	3.6	20.2	1130.3	461.6

###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>
Sep 2018	207918	146232	354150	58.7	41.3
Oct 2018	195900	165435	361335	54.2	45.8
Nov 2018	148576	155750	304326	48.8	51.2
Dec 2018	160150	138035	298185	53.7	46.3
Jan 2019	197061	80711	277772	70.9	29.1
Feb 2019	176154	53112	229266	76.8	23.2
Mar 2019	238787	79915	318703	74.9	25.1
Apr 2019	238316	71312	309628	77	23
May 2019	241828	82288	324116	74.6	25.4
Jun 2019	471667	114813	586480	80.4	19.6
Jul 2019	230355	56870	287225	80.2	19.8
Aug 2019	243224	124422	367646	66.2	33.8
TOTAL	2749937	1268895	4018832	-	-
AVERAGE	229161.4	105741.3	334902.7	68	32