

SEPTEMBER 2018



**WIM #42
US 61,
MP 119.6
COTTAGE
GROVE,
MINNESOTA**

**MONTHLY
REPORT**



Your Destination...Our Priority



WIM Site Location

WIM #42 is located on US 61 near Cottage Grove in Washington county.

System Operation

WIM #42 was operational for the entire month of September 2018. Volume was computed using all monthly data.

System Calibration

WIM #42 was most recently calibrated on 2016-08-04. Table 1 summarizes the front axle weights of class 9s by lane ¹. 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 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: 1068437 | Passenger Vehicles: 1014244 | Heavy Commercial Vehicles: 54193

Monthly Average Daily Traffic (MADT): 35615 | Monthly Heavy Commercial Average Daily Traffic (MHCADT): 1806

See Table 2 for vehicle class breakdown

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

Volume trends. NB vehicles typically reached highest volume levels on Fridays, with lowest volumes reported on Mondays. SB vehicles typically reached highest volume levels on Fridays, with lowest volumes reported on Sundays (see Figure 3 and 4).

Passenger Vehicles (PVs)

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

Heavy Commercial Vehicles (HCVs)

Volume trends. On an average 24-hour day, HCVs traveling NB typically reached peak volume levels between 03 PM and 05 PM, while volume going SB 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 54193 HCVs, 3206 of them were overweight³. These overweight HCVs contributed to 0.3% of total monthly volume, and 6.1% of total monthly HCV volume. NB overweight vehicles typically reached highest numbers on Fridays, with lowest volumes reported on Sundays. SB overweight vehicles tended to reach highest volumes on Wednesdays, 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 57% of all overweight vehicles traveling SB this month (see Figure 7 & 8). Figure 9 shows the number of vehicles exceeding 88,000 pounds that crossed the WIM over the last 12 months. The highest number of 88,000+ vehicles within the last 12 months occurred in July.

WIMs are currently used as a screening tool for weight enforcement, and it is estimated that the WIM scales can measure gross vehicle weights (GVW) within 90-95% of static weight scale measurements. Due to the possibility of measurement error, vehicles exceeding 10% of their legal weight limits (or 1.1 times their legal weight limits) are considered overweight in this report⁴.

Using normal load limits ,58 NB vehicles exceeded 88,000 pounds (35 vehicles were Class 13's; 16 vehicles were Class 10's). Of vehicles traveling SB,

105 NB vehicles exceeded 88,000 pounds (55 vehicles were Class 13's; 25 vehicles were Class 9'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 NB, while there were more fully_loaded Class 9's than empty traveling SB. Data also suggests that there were more fully_loaded Class 10's than empty traveling in the NB direction. In the SB direction, there were more fully_loaded class 10 vehicles.

Freight Totals. A total of 367817 tons of freight was recorded to have crossed the WIM. More freight was shipped NB (55.4%) than SB (44.6%). See Table 4 and Figure 11 for more freight information.

Infrastructure Considerations

Bridge. Bridge No. 5895 (Hastings Bridge) is approximately 1.9 miles south of WIM #42, and Bridge No. 82J16 is 1.0 miles north of WIM #42. WIM #42 recorded a total of 1068437 vehicles with a combined GVW of 6067516 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 28287 equivalent single axle loads (ESALs) passed over the pavement at this site. Approximately 52.4% of all ESALs were recorded NB while 47.6% was observed SB. In particular, 54% of all ESALs were generated by the Class 9's (Class 9's were also responsible for generating 16% 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).

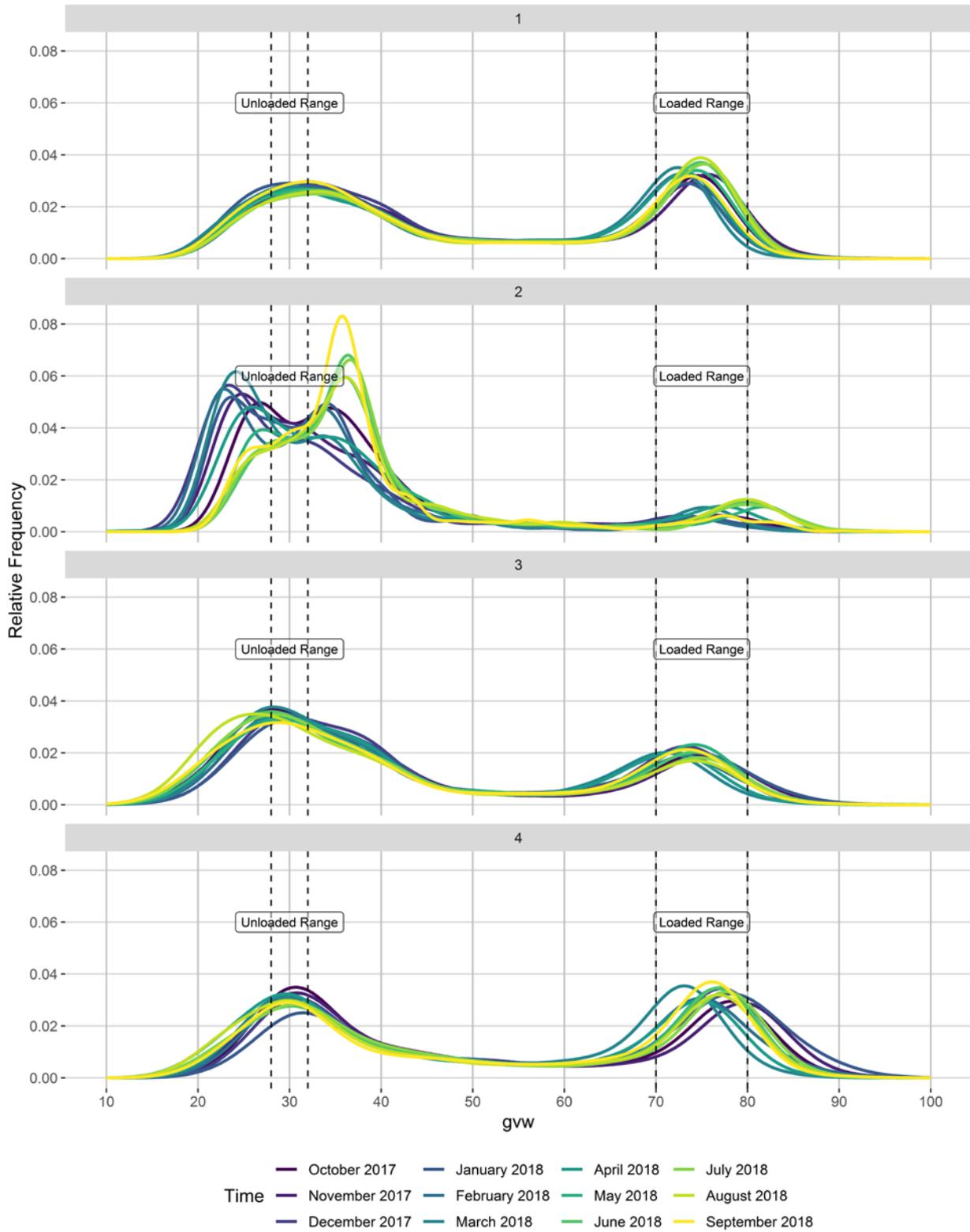
WIM monthly reports can be found at: <http://www.dot.state.mn.us/traffic/data/reports-monthly-wim.html>

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.

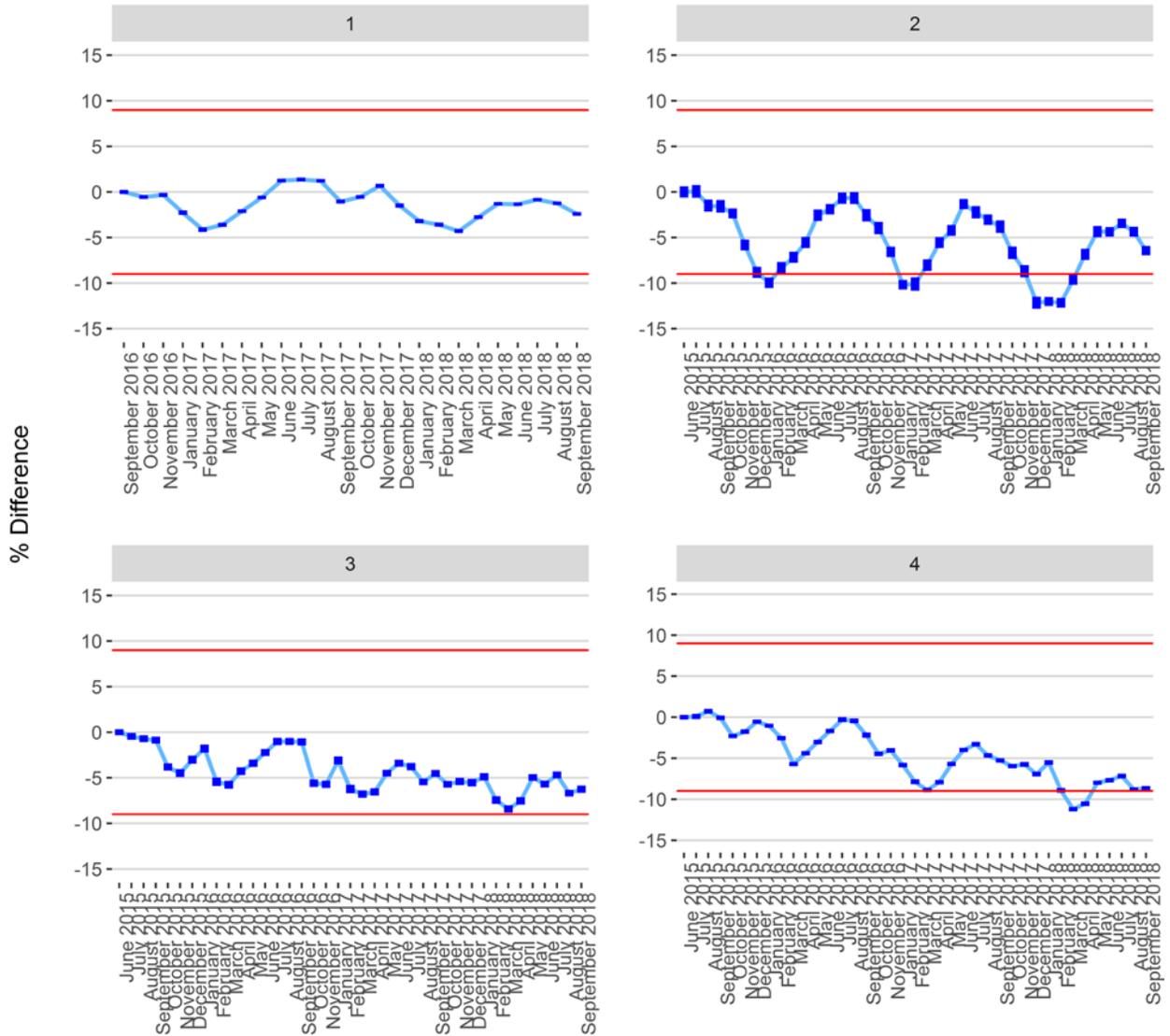
To request this document in an alternative format, please call 651-366-4718 or 1-800-657-3774, or email your request to ADArequest.dot@state.mn.us. Please request at least one week in advance.

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

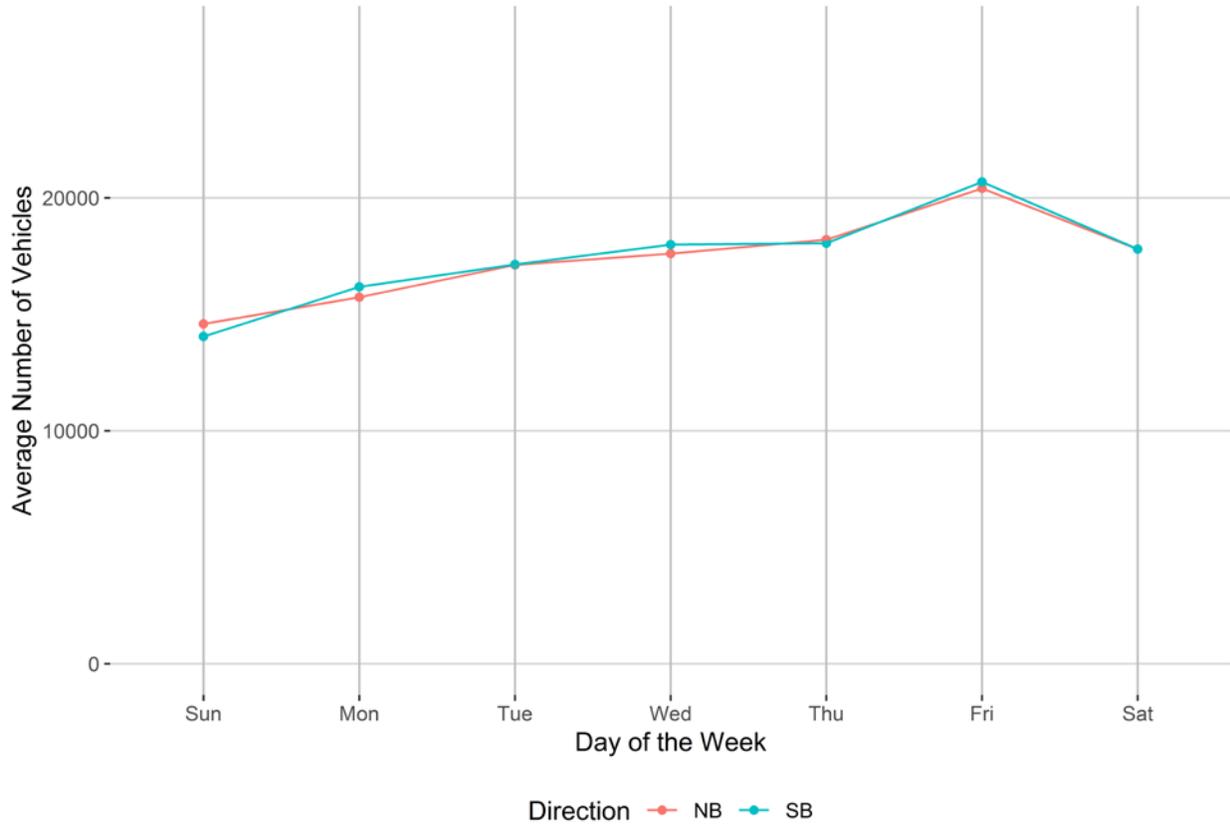


Figure 3 - Average Overweight Vehicle Volume vs. Day of the Week

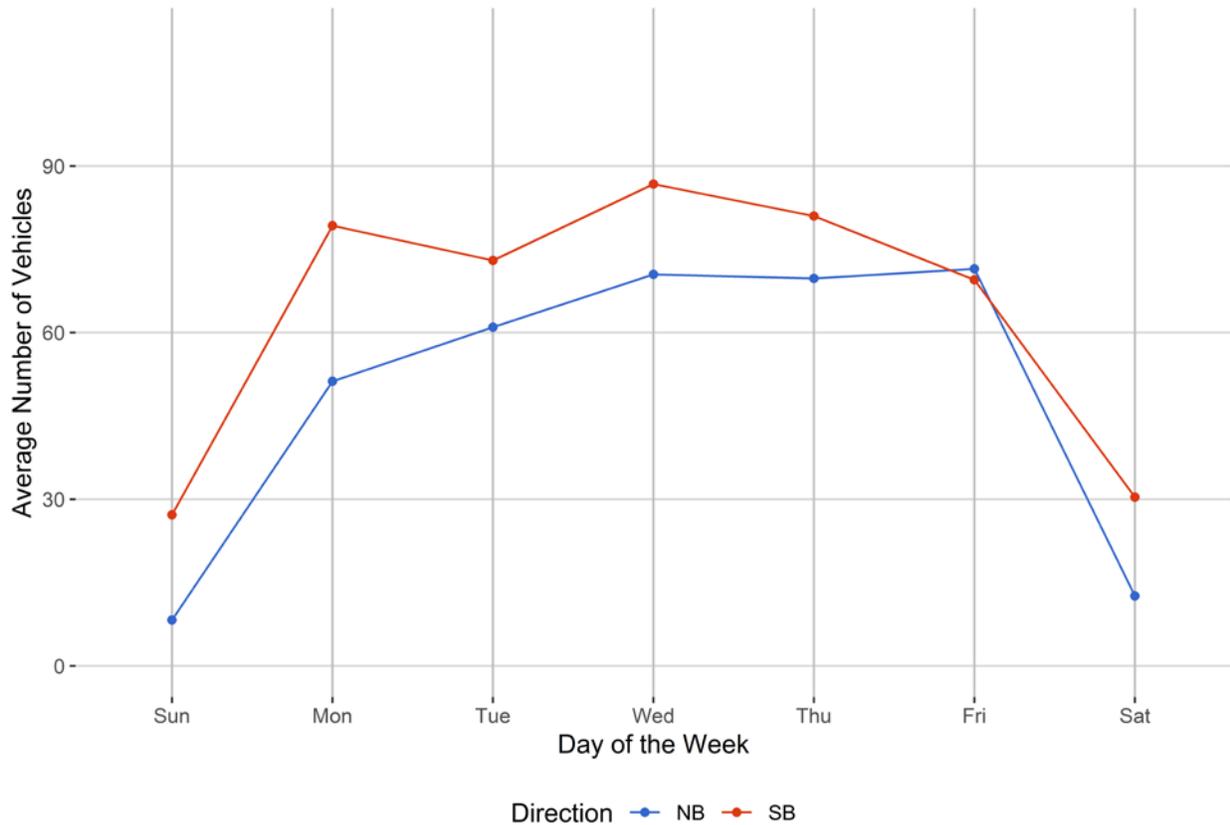


Figure 4 - Passenger Vehicles vs. Hour of the Day

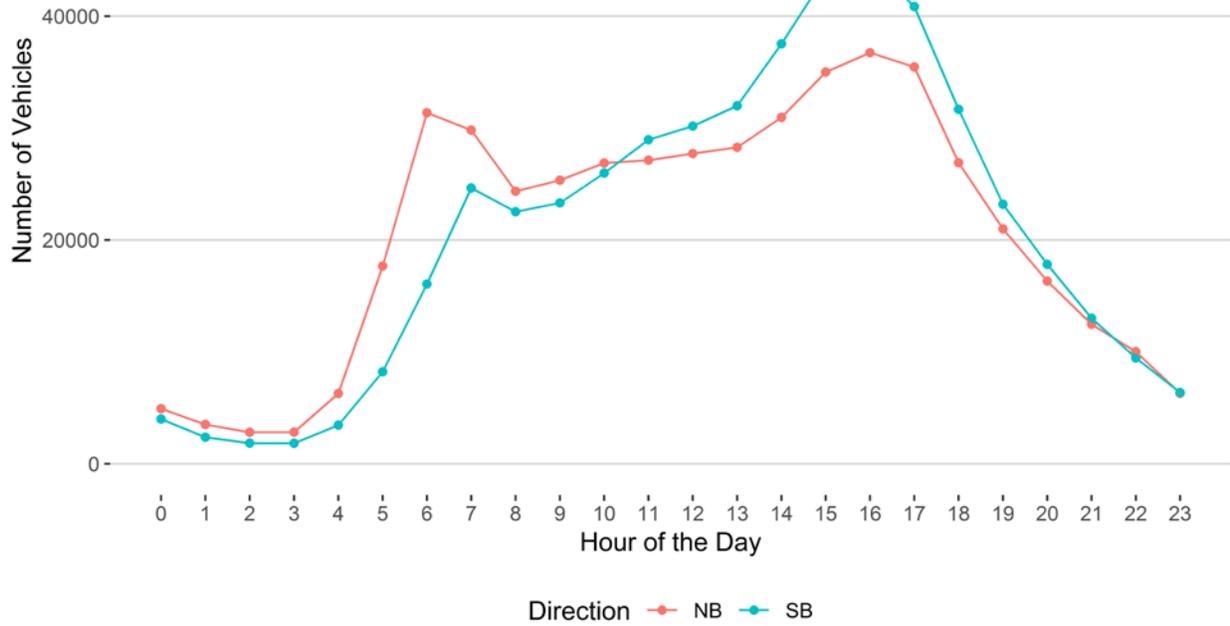


Figure 5 - Heavy Commercial Vehicles vs. Hour of the Day

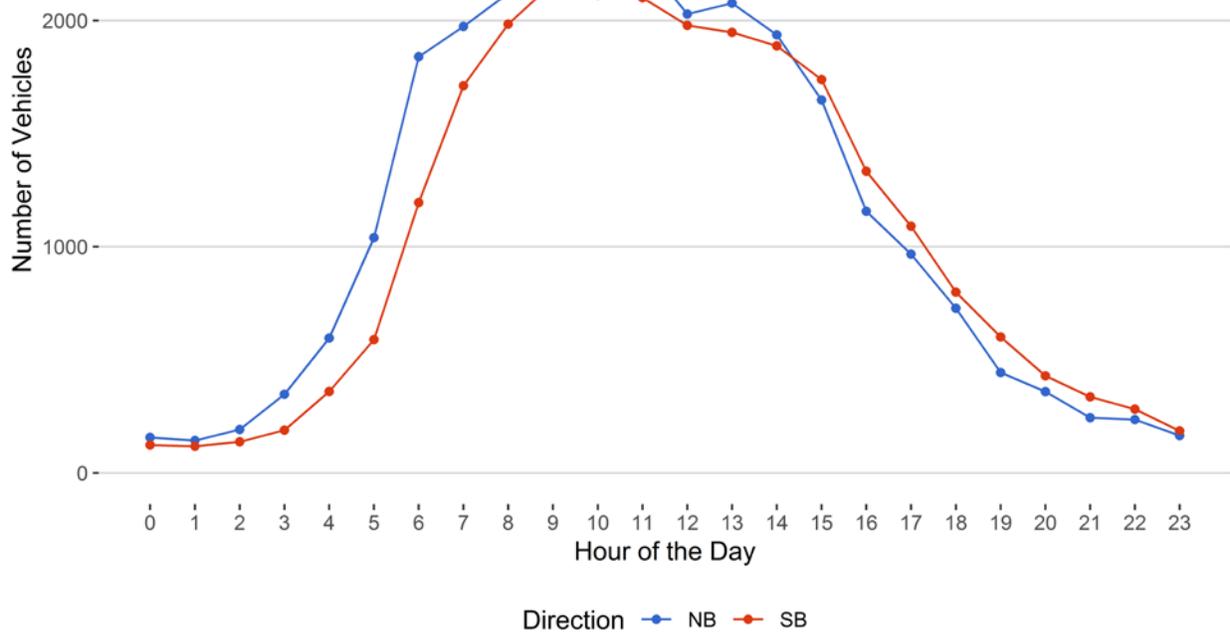


Figure 6 - Overweight Vehicles by Class vs. Hour of the Day

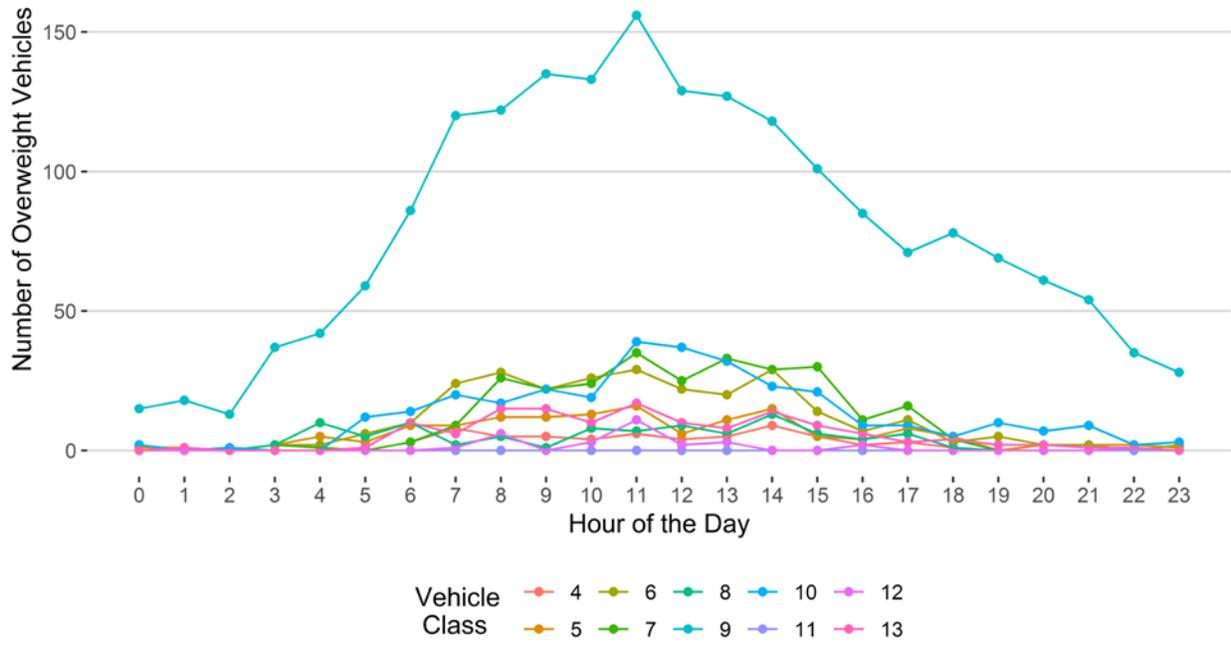


Figure 7 - Overweight Vehicles by Direction
Hour of the Day

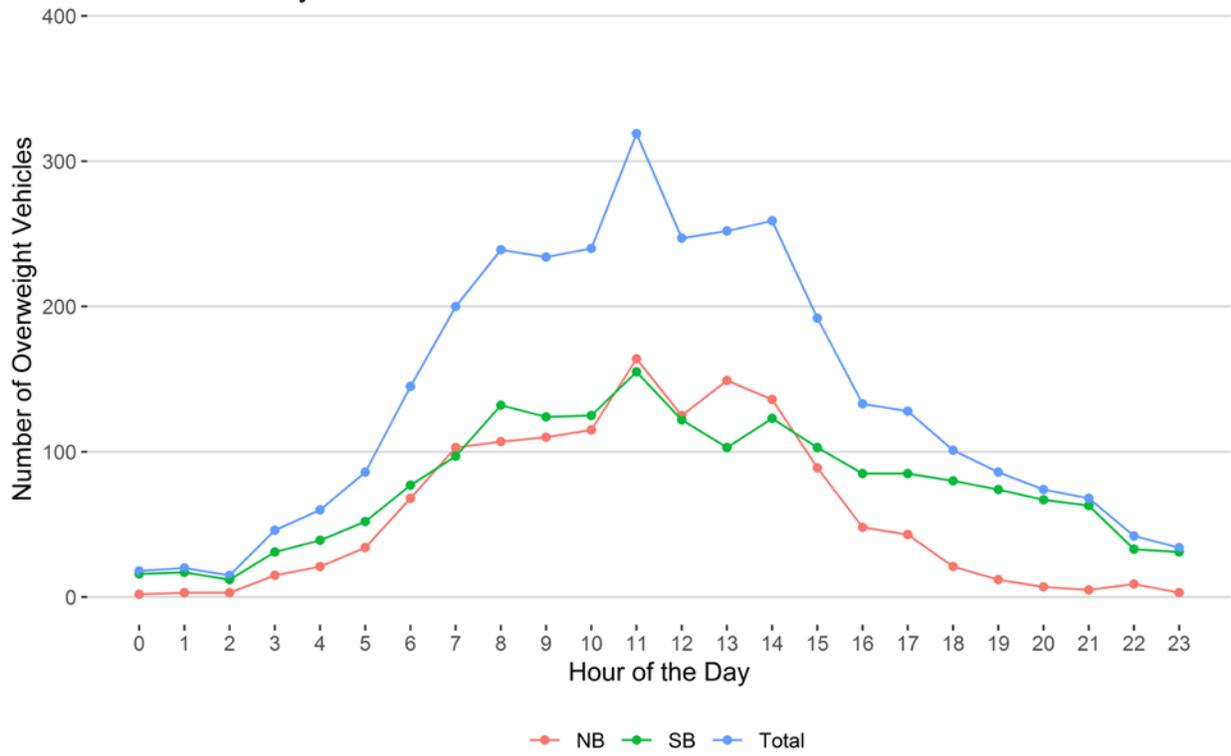
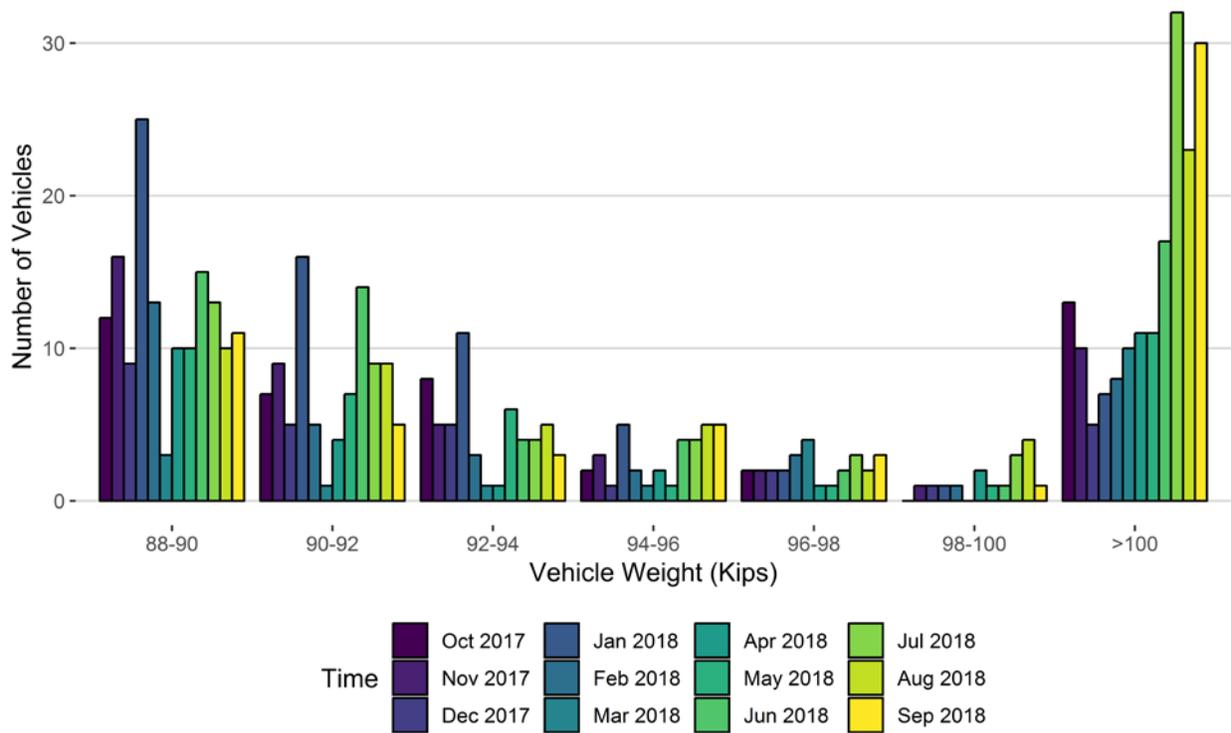
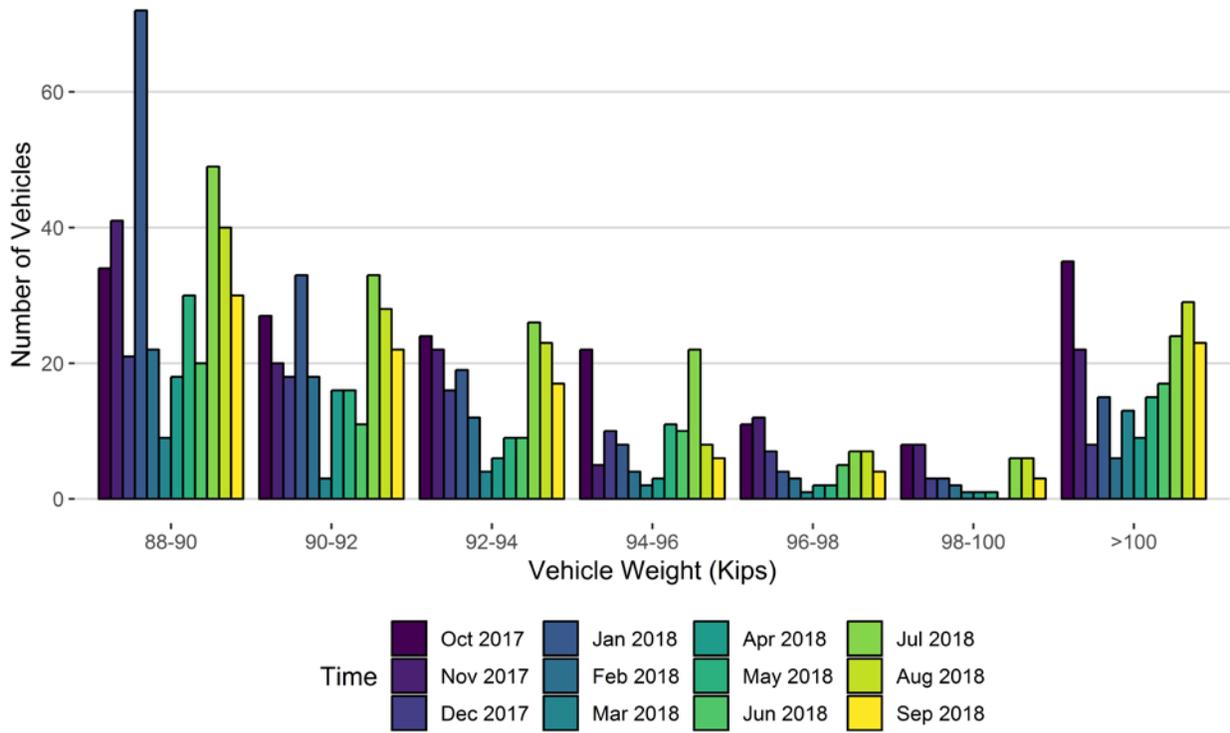


Figure 8 - Histogram of NB Vehicles Over 88,000 Pounds for Current Month



Vehicle Weights (Kips)	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018
88-90	12	16	9	25	13	3	10	10	15	13	10	11
90-92	7	9	5	16	5	1	4	7	14	9	9	5
92-94	8	5	5	11	3	1	1	6	4	4	5	3
94-96	2	3	1	5	2	1	2	1	4	4	5	5
96-98	2	2	2	2	3	4	1	1	2	3	2	3
98-100	0	1	1	1	1	0	2	1	1	3	4	1
>100	13	10	5	7	8	10	11	11	17	32	23	30
Total	44	46	28	67	35	20	31	37	57	68	58	58

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



Vehicle Weights (Kips)	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018
88-90	34	41	21	72	22	9	18	30	20	49	40	30
90-92	27	20	18	33	18	3	16	16	11	33	28	22
92-94	24	22	16	19	12	4	6	9	9	26	23	17
94-96	22	5	10	8	4	2	3	11	10	22	8	6
96-98	11	12	7	4	3	1	2	2	5	7	7	4
98-100	8	8	3	3	2	1	1	1	0	6	6	3
>100	35	22	8	15	6	13	9	15	17	24	29	23
Total	161	130	83	154	67	33	55	84	72	167	141	105

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

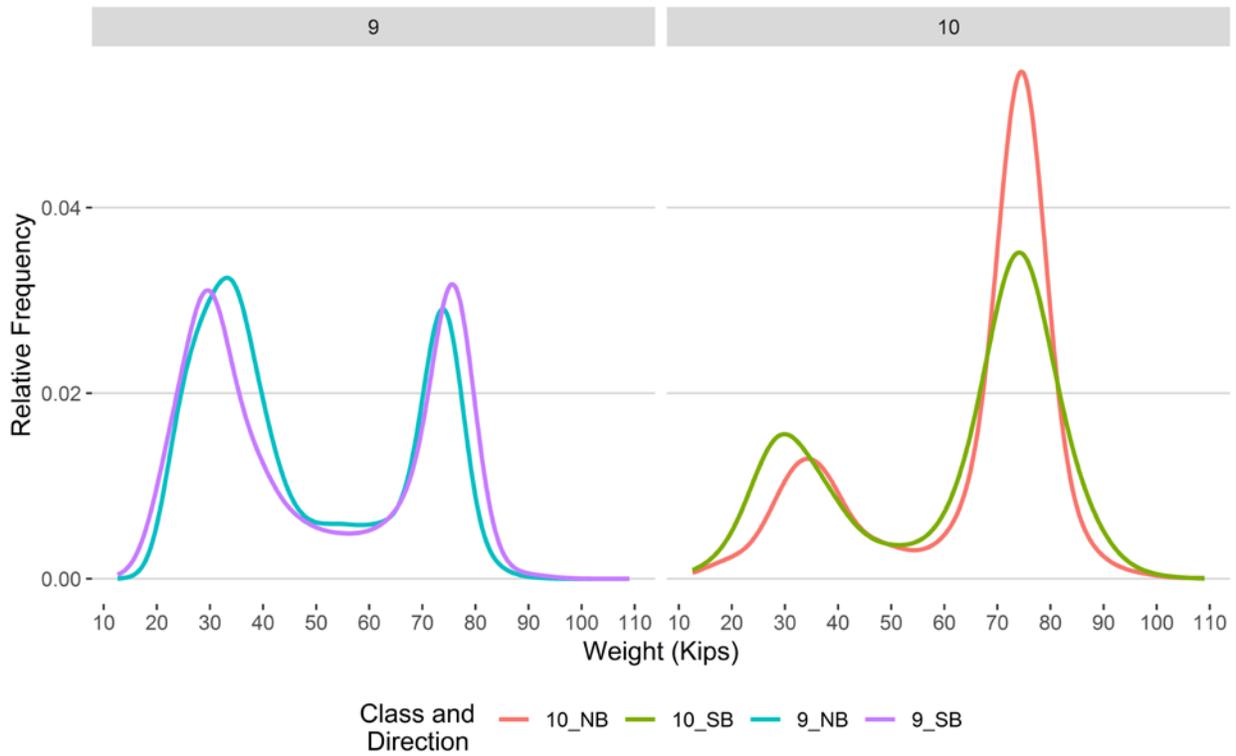


Figure 9 - Freight Percentage by Direction and Class

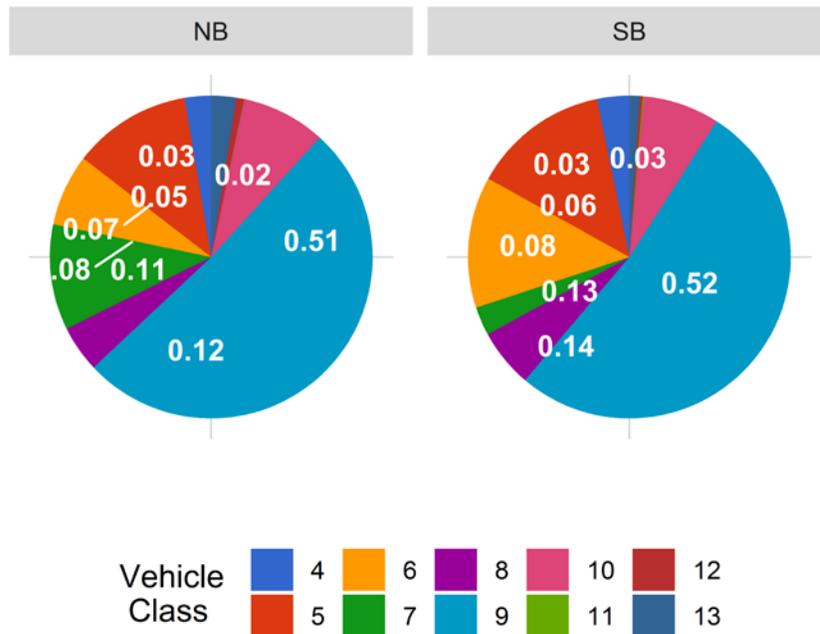


Figure 10 - Total Gross Vehicle Weight Percentage by Class and Lane

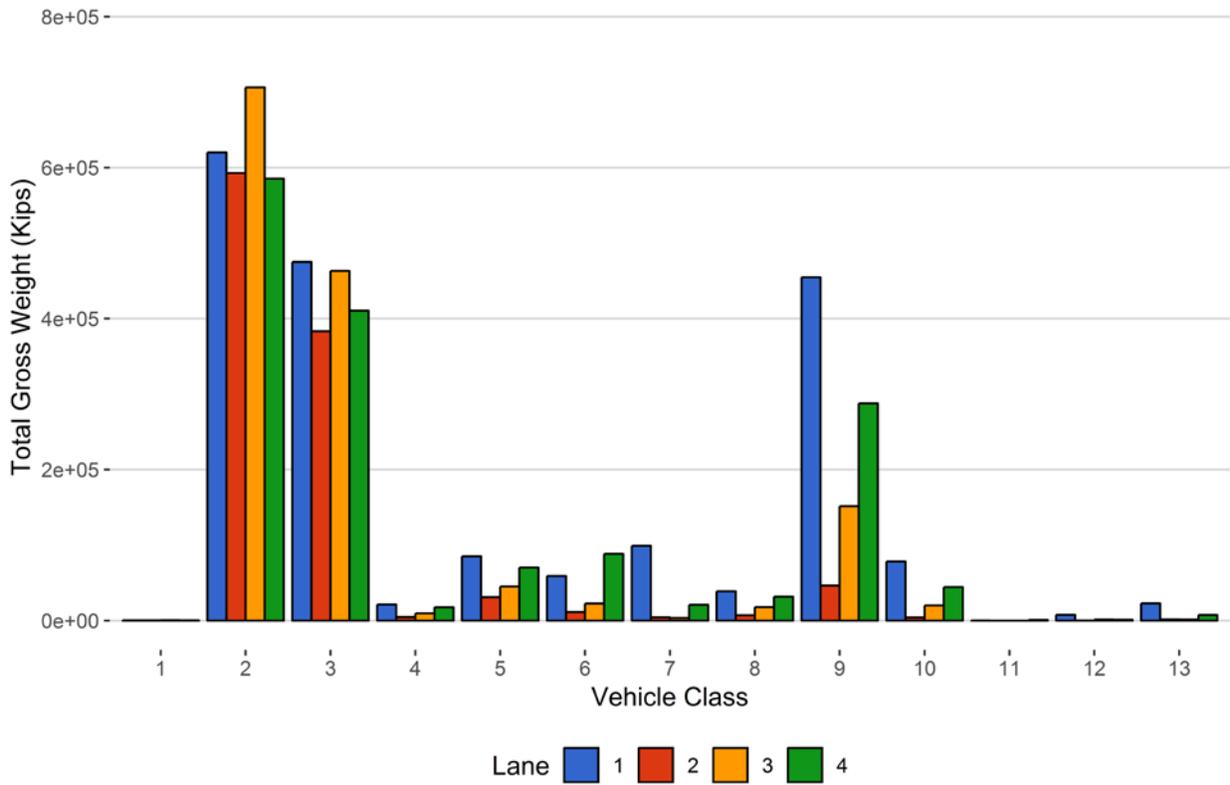


Figure 11 - Total Gross Vehicle Weight t

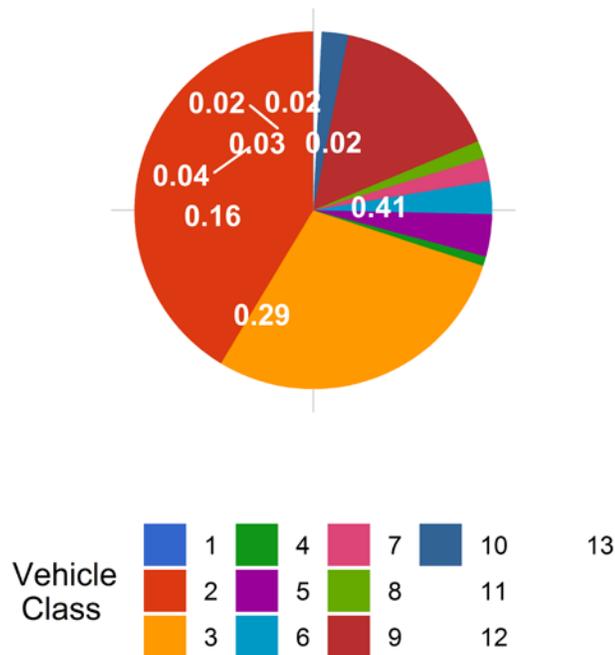


Figure 12 - Total ESALs by Class and Lane

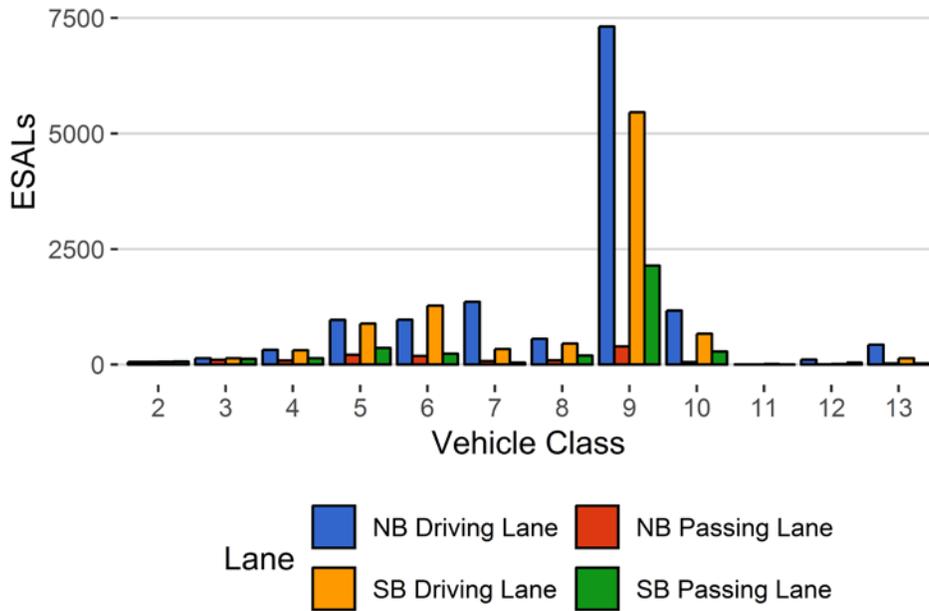


Figure 13 - ESALs by Class

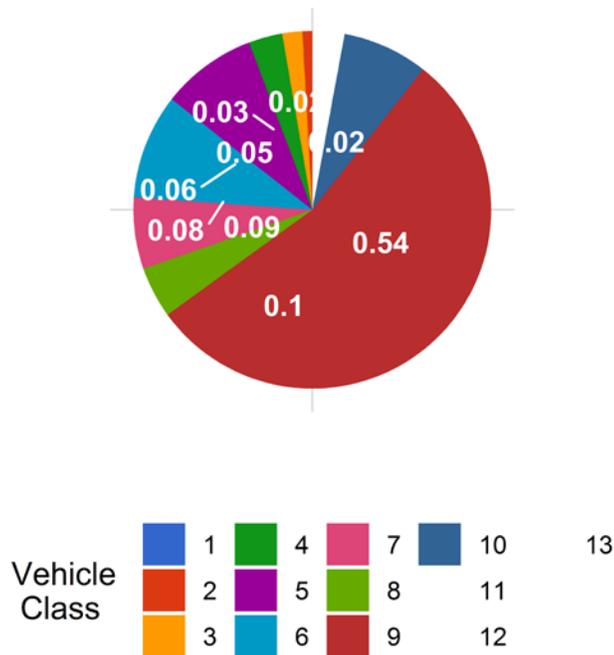


Table 1 Class 9 Front Axle Weight by Lane

<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>
June 2015	NA	NA	10.99	0.00	10.36	0.00	11.58	0.00
July 2015	NA	NA	11.00	0.07	10.31	-0.46	11.59	0.10
August 2015	NA	NA	10.83	-1.50	10.29	-0.71	11.66	0.73
September 2015	NA	NA	10.82	-1.58	10.27	-0.86	11.57	-0.07
October 2015	NA	NA	10.73	-2.36	9.96	-3.82	11.31	-2.30
November 2015	NA	NA	10.35	-5.82	9.90	-4.48	11.38	-1.76
December 2015	NA	NA	10.02	-8.82	10.05	-3.02	11.52	-0.54
January 2016	NA	NA	9.90	-9.96	10.18	-1.79	11.46	-1.04
February 2016	NA	NA	10.08	-8.33	9.80	-5.44	11.28	-2.55
March 2016	NA	NA	10.20	-7.17	9.76	-5.76	10.92	-5.71
April 2016	NA	NA	10.38	-5.54	9.92	-4.27	11.07	-4.40
May 2016	NA	NA	10.71	-2.55	10.01	-3.40	11.23	-3.03
June 2016	NA	NA	10.79	-1.89	10.13	-2.23	11.38	-1.68
July 2016	NA	NA	10.92	-0.67	10.25	-1.02	11.54	-0.30
August 2016	NA	NA	10.92	-0.66	10.26	-1.01	11.53	-0.45
September 2016	10.31	0.00	10.71	-2.56	10.25	-1.07	11.33	-2.18
October 2016	10.25	-0.56	10.56	-3.97	9.78	-5.60	11.06	-4.48
November 2016	10.27	-0.33	10.27	-6.58	9.77	-5.71	11.11	-4.04
January 2017	10.07	-2.27	9.87	-10.18	10.04	-3.10	10.90	-5.84
February 2017	9.88	-4.13	9.88	-10.10	9.71	-6.24	10.67	-7.87
March 2017	9.94	-3.61	10.11	-8.04	9.66	-6.79	10.55	-8.88
April 2017	10.09	-2.11	10.38	-5.55	9.68	-6.54	10.66	-7.92
May 2017	10.25	-0.61	10.53	-4.22	9.90	-4.48	10.92	-5.70
June 2017	10.44	1.25	10.85	-1.33	10.01	-3.39	11.12	-3.99
July 2017	10.45	1.36	10.75	-2.23	9.97	-3.77	11.20	-3.28
August 2017	10.43	1.22	10.66	-3.04	9.79	-5.46	11.04	-4.65

September 2017	10.20	-1.06	10.57	-3.80	9.89	-4.52	10.97	-5.27
October 2017	10.25	-0.56	10.26	-6.68	9.77	-5.71	10.89	-5.98
November 2017	10.38	0.67	10.04	-8.70	9.80	-5.41	10.91	-5.75
December 2017	10.15	-1.49	9.66	-12.14	9.79	-5.54	10.78	-6.93
January 2018	9.98	-3.20	9.67	-12.02	9.85	-4.90	10.94	-5.52
February 2018	9.94	-3.60	9.66	-12.16	9.59	-7.44	10.55	-8.91
March 2018	9.87	-4.29	9.93	-9.63	9.49	-8.42	10.28	-11.21
April 2018	10.02	-2.76	10.24	-6.84	9.58	-7.54	10.36	-10.54
May 2018	10.17	-1.30	10.52	-4.34	9.85	-4.97	10.65	-7.99
June 2018	10.17	-1.35	10.51	-4.37	9.77	-5.69	10.69	-7.67
July 2018	10.22	-0.84	10.61	-3.45	9.88	-4.68	10.75	-7.17
August 2018	10.18	-1.25	10.51	-4.36	9.67	-6.69	10.56	-8.80
September 2018	10.06	-2.42	10.29	-6.44	9.71	-6.26	10.58	-8.65

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	38	1144	0.1	0	0
2	23271	698142	65.3	0	0
3	10499	314958	29.5	0	0
4	64	1930	0.2	62	1.9
5	583	17492	1.6	144	4.5
6	214	6433	0.6	266	8.3
7	73	2184	0.2	270	8.4
8	110	3289	0.3	95	3
9	661	19835	1.9	1892	59
10	80	2412	0.2	313	9.8
11	1	29	0	0	0
12	5	163	0	29	0.9
13	14	427	0	135	4.2
TOTAL	35615	1068437	100	3206	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>
2018-09-04	Tuesday	15:05:03	10	NB	2	112.23
2018-09-05	Wednesday	16:22:52	10	NB	1	109.01
2018-09-19	Wednesday	05:07:04	10	SB	4	101.77
2018-09-30	Sunday	11:04:06	10	NB	1	99.01
2018-09-26	Wednesday	15:52:30	10	SB	4	98.07
2018-09-04	Tuesday	15:05:03	10	NB	1	97.91
2018-09-22	Saturday	11:50:50	10	NB	1	97.83
2018-09-16	Sunday	11:07:00	10	NB	1	96.68
2018-09-02	Sunday	08:56:51	10	NB	1	96.3
2018-09-16	Sunday	07:41:10	9	SB	3	96.11

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	NB	15	958	171	17.8	23886	2096	6040
5	NB	8	8561	1602	18.7	104753	11421	24540
6	NB	19	2325	295	12.7	65475	4811	13452
7	NB	11.5	1712	1	0.1	103462	9	41893
8	NB	31	1538	957	62.2	23704	21977	2846
9	NB	33	10458	3109	29.7	414662	86416	86073
10	NB	33.5	1283	143	11.1	78305	4033	20058
11	NB	36.5	8	7	87.5	37	176	0
12	NB	36.5	120	1	0.8	7638	26	1647
13	NB	31.5	318	2	0.6	24283	43	7165
TOTAL	****	****	27281	6288	****	846204	****	203714
<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	SB	15	918	129	14.1	25592	1594	6878
5	SB	8	8443	1465	17.4	104973	10508	24575
6	SB	19	3929	303	7.7	105999	4955	18552
7	SB	11.5	411	0	0	24208	0	9741
8	SB	31	1659	910	54.9	28679	20724	2730
9	SB	33	8824	3146	35.7	353433	85859	83029
10	SB	33.5	1062	207	19.5	58747	5665	15052
11	SB	36.5	20	4	20	896	79	156
12	SB	36.5	38	0	0	2519	0	566
13	SB	31.5	97	0	0	8700	0	2822
TOTAL	****	****	25401	6164	****	713747	****	164103
GRAND TOTAL	****	****	52682	12452	410	1559951	260393	367817

Table 5 Gross Vehicle Weight by Class and Lane

<i>Vehicle Class</i>	<i>NB Driving Lane</i>	<i>NB Passing Lane</i>	<i>SB Passing Lane</i>	<i>SB Driving Lane</i>	<i>Total</i>	<i>Percentage</i>
1	269	329	430	249	1277	0
2	620142	592698	706366	585351	2504556	41.3
3	475185	383132	463113	410535	1731965	28.6
4	21345	4636	9577	17609	53167	0.9
5	85177	30996	45127	70354	231655	3.8
6	59000	11286	22535	88419	181240	3
7	99166	4305	3310	20898	127680	2.1
8	38731	6950	17801	31603	95084	1.6
9	454744	46335	151608	287684	940370	15.5
10	78327	4011	20119	44293	146750	2.4
11	213	0	0	975	1188	0
12	7444	219	1383	1136	10183	0.2
13	22785	1542	1420	7281	33027	0.5
TOTAL	1962528	1086439	1442789	1566386	6058142	100
GVW/LANE	32.39	17.93	23.82	25.86	100	0

Table 6 ESALs by Class and Lane and Flexible ESAL Factors

<i>Vehicle Class</i>	<i>NB Driving Lane</i>	<i>NB Passing Lane</i>	<i>SB Passing Lane</i>	<i>SB Driving Lane</i>	<i>Total</i>	<i>Percentage</i>	<i>Flexible ESAL Factor</i>
1	0	0	0	0	0	0	9e-04
2	59	60	69	63	251	0.89	7e-04
3	140	104	127	137	508	1.81	0.0033
4	322	88	139	311	860	3.06	0.92
5	967	212	360	890	2429	8.63	0.29
6	972	189	237	1276	2674	9.5	0.86
7	1360	76	44	338	1819	6.46	1.71
8	562	91	196	456	1306	4.64	0.82
9	7313	394	2141	5457	15304	54.38	1.59
10	1169	57	282	669	2177	7.74	1.86
11	1	0	0	16	16	0.06	1.11
12	110	7	42	13	172	0.61	2.1
13	434	27	28	137	626	2.22	2.96
TOTAL	13408	1307	3665	9762	28142	100	14
ESALS/LANE	47.6	4.6	13	34.7	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>
Oct 2017	1066794	34413	1775	1011755	94.8	55038.8	5.2	73.9	26.1
Nov 2017	953086	31770	1573	905896	95	47190.4	5	74	26
Dec 2017	916857	29576	1233	878647	95.8	38210.2	4.2	71.1	28.9
Jan 2018	872295	28138	1250	833551	95.6	38744	4.4	68.9	31.1
Feb 2018	821000	29321	1278	785225	95.6	35774.6	4.4	71.6	28.4
Mar 2018	973481	31403	1334	932126	95.8	41355	4.2	73.2	26.8
Apr 2018	951927	31731	1397	910012	95.6	41915.4	4.4	72.3	27.7
May 2018	1132671	36538	1759	1078136	95.2	54534.7	4.8	72.4	27.6
Jun 2018	1115053	37168	1796	1061160	95.2	53892.6	4.8	72	28
Jul 2018	1124798	36284	1799	1069022	95	55776	5	73.1	26.9
Aug 2018	1137438	36692	1873	1079387	94.9	58051	5.1	72.5	27.5
Sep 2018	1068437	35615	1806	1014244	94.9	54192.6	5.1	73.1	26.9
TOTAL	12133837	-	-	11559161	-	574675	-	-	-
AVERA GE	1011153	33221	1573	963263	95	47890	5	72	28

ESALS

<i>Month</i>	<i>ESALS NB Passing Lane</i>	<i>ESALS NB Driving Lane</i>	<i>ESALS SB Driving Lane</i>	<i>ESALS SB 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	14796	1056	3830	10197	29879	84	16	0.7
Nov 2017	13898	810	3662	9572	27942	84	16	0.8
Dec 2017	9122	748	3027	7048	19946	81	19	1.6
Jan 2018	8928	843	3536	7448	20755	79	21	2.9
Feb 2018	9225	701	2769	5385	18081	81	19	1.9
Mar 2018	10255	816	2598	5993	19663	83	17	0.2
Apr 2018	10719	1003	2961	5887	20570	81	19	0.5
May 2018	15293	1316	4108	8413	29131	81	19	0.4
Jun 2018	16225	1468	3956	8512	30161	82	18	1
Jul 2018	16409	1565	3643	9784	31401	83	17	1.3
Aug 2018	16699	1569	3852	9882	32003	83	17	0.8
Sep 2018	13504	1314	3680	9789	28287	82	18	0.9
TOTAL	155076	13210	41623	97910	307819	-	-	-
AVERAGE	12923	1101	3469	8159	25652	82	18	1

Gross Vehicle Weight

<i>Month</i>	<i>GVW NB Passing Lane</i>	<i>GVW NB Driving Lane</i>	<i>GVW SB Passing Lane</i>	<i>GVW SB Driving Lane</i>	<i>Total GVW Kips</i>
Oct 2017	1535621	819939	1217052	1168290	4740903
Nov 2017	1484466	720163	1090816	1068086	4363532
Dec 2017	1730276	868402	1235504	1263310	5097491
Jan 2018	1713918	884564	1241636	1225668	5065786
Feb 2018	2161183	1175039	1581054	1449968	6367245
Mar 2018	2164093	1193202	1560431	1483902	6401628
Apr 2018	2204255	1198396	1514059	1576436	6493146
May 2018	2205186	1193867	1552543	1615359	6566955
Jun 2018	1969077	1086805	1443718	1567916	6067516
Jul 2018	2111653	1089943	1502804	1588535	6292934
Aug 2018	1895059	933642	1366755	1465744	5661201
Sep 2018	1643079	793869	1249765	1255341	4942054
TOTAL	22817866	11957832	16556136	16728557	68060390
AVERAGE	1901489	996486	1379678	1394046	5671699

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	3836	0.4	7	206	56
Nov 2017	4271	0.5	9.1	177	42
Dec 2017	2385	0.3	6.3	111	17
Jan 2018	2776	0.3	7.1	224	28
Feb 2018	1765	0.2	4.9	102	17
Mar 2018	1311	0.1	3.2	53	24
Apr 2018	1746	0.2	4.1	86	23
May 2018	3351	0.3	6.3	121	28
Jun 2018	4036	0.4	7.6	129	35
Jul 2018	4531	0.4	8.3	235	65
Aug 2018	4223	0.4	7.4	199	62
Sep 2018	3238	0.3	6	163	57
TOTAL	37469	-	-	1806	454
AVERAGE	3122.4	0.3	6.4	150.5	37.8

Freight

<i>Month</i>	<i>NB Freight Tons</i>	<i>SB Freight Tons</i>	<i>Total Freight</i>	<i>NB Freight %</i>	<i>SB Freight %</i>
Oct 2017	213041	158477	371518	57.3	42.7
Nov 2017	183851	144619	328470	56	44
Dec 2017	126740	115689	242429	52.3	47.7
Jan 2018	122668	121856	244524	50.2	49.8
Feb 2018	125964	95803	221767	56.8	43.2
Mar 2018	143515	109156	252670	56.8	43.2
Apr 2018	150002	107961	257962	58.1	41.9
May 2018	208896	150269	359165	58.2	41.8
Jun 2018	215733	147528	363262	59.4	40.6
Jul 2018	223930	159341	383271	58.4	41.6
Aug 2018	227868	162122	389990	58.4	41.6
Sep 2018	203714	164103	367817	55.4	44.6
TOTAL	2145923	1636923	3782846	-	-
AVERAGE	178826.9	136410.2	315237.1	56.4	43.6