

SEPTEMBER 2018



**WIM #38
I-535, MP 1.1
DULUTH, MN**

**MONTHLY
REPORT**



Your Destination... Our Priority



WIM Site Location

WIM #38 is located on I-535 near Duluth in St Louis county.

System Operation

WIM #38 was operational for the entire month of September 2018. Volume was computed using all monthly data.

System Calibration

WIM #38 was most recently calibrated on 2017-01-23. 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: 1060284 | Passenger Vehicles: 1000271 | Heavy Commercial Vehicles: 60013

Monthly Average Daily Traffic (MADT): 35343 | Monthly Heavy Commercial Average Daily Traffic (MHCADT): 2000

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 Sundays. 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 02 PM and 04 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 02 PM and 04 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 60013 HCVs, 3867 of them were overweight³. These overweight HCVs contributed to 0.4% of total monthly volume, and 6.8% of total monthly HCV volume. NB overweight vehicles typically reached highest numbers on Wednesdays, with lowest volumes reported on Sundays. SB 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 6 vehicles . Overall, overweight vehicles tended to reach peak volume concentrations during typical business hours, with 59.9% of all overweight vehicles traveling NB 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 report⁴.

Using normal load limits ,63 NB vehicles exceeded 88,000 pounds (31 vehicles were Class 10's; 17 vehicles were Class 13's). Of vehicles traveling SB,

157 NB vehicles exceeded 88,000 pounds (109 vehicles were Class 10's; 41 vehicles were Class 13'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 443297 tons of freight was recorded to have crossed the WIM. More freight was shipped NB (50.2%) than SB (49.8%). See Table 4 and Figure 11 for more freight information.

Infrastructure Considerations

Bridge. Bridge No. 9030 (Blatnik Bridge) is approximately 1.1 miles south of WIM #38, and Bridge No. 69808 is 0.45 miles south of WIM #38. A pair of bridges also exists 0.4 miles north of WIM #38 (Bridge No. 69801C on the NB side and Bridge No. 69801N on the SB side). WIM #38 recorded a total of 1060284 vehicles with a combined GVW of 6513058 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 38811 equivalent single axle loads (ESALs) passed over the pavement at this site. Approximately 51.7% of all ESALs were recorded NB while 48.3% was observed SB. In particular, 57% of all ESALs were generated by the Class 9's (Class 9's

were also responsible for generating 19% 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).

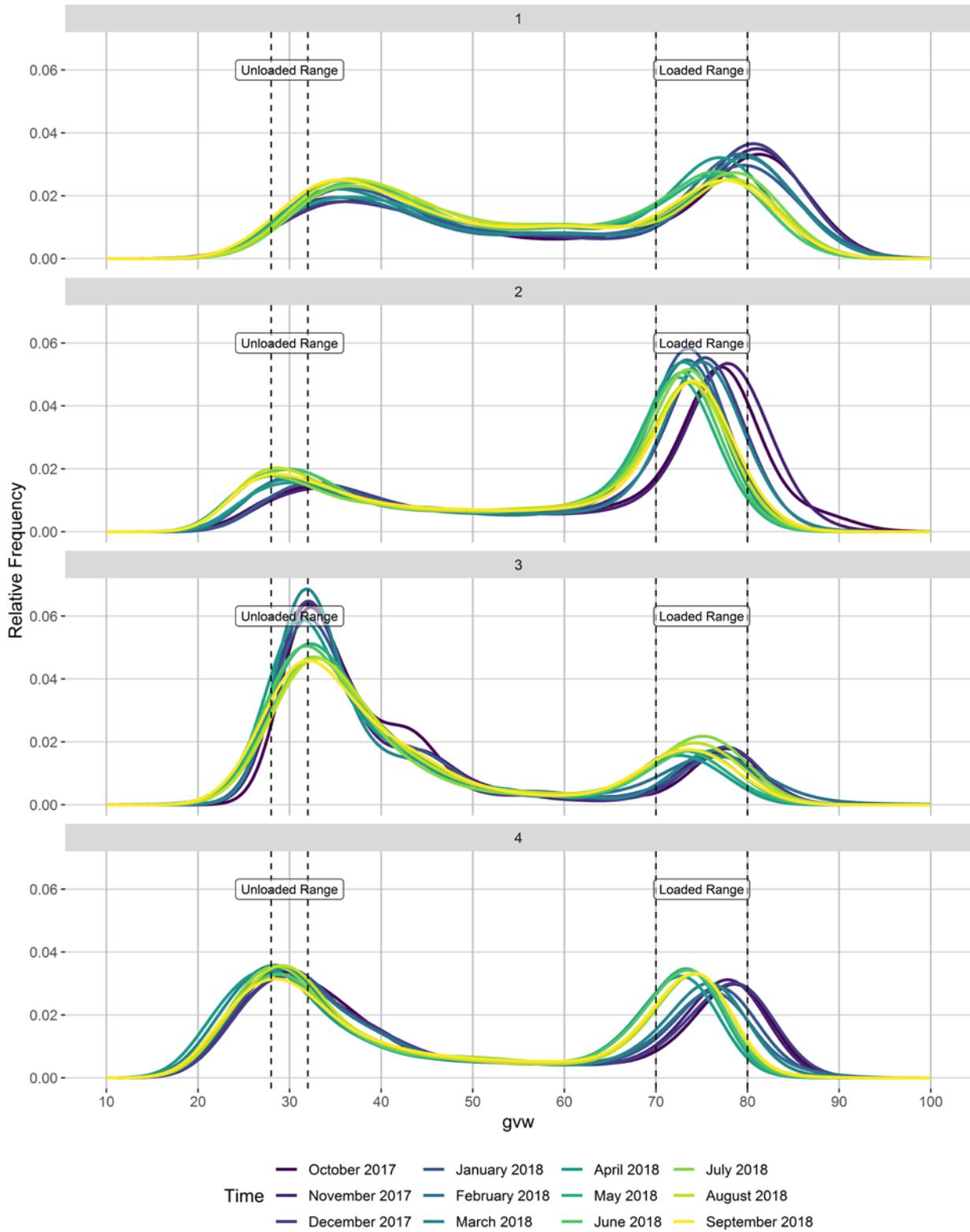
WIM monthly reports can be found at: <http://www.dot.state.mn.us/traffic/data/reports-monthly-wim.html>

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.

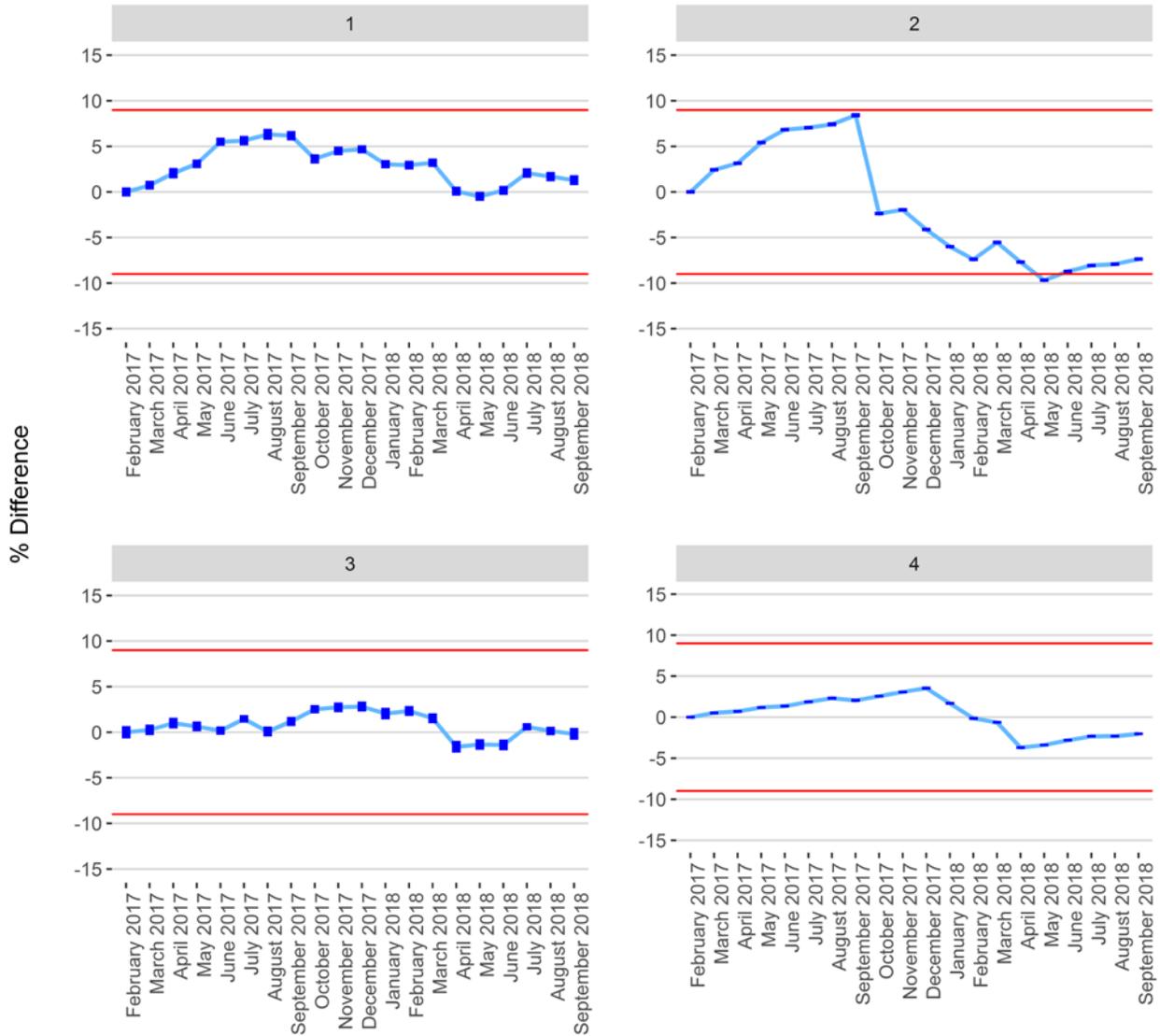
To request this document in an alternative format, please call 651-366-4718 or 1-800-657-3774, or email your request to ADArequest.dot@state.mn.us. Please request at least one week in advance.

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

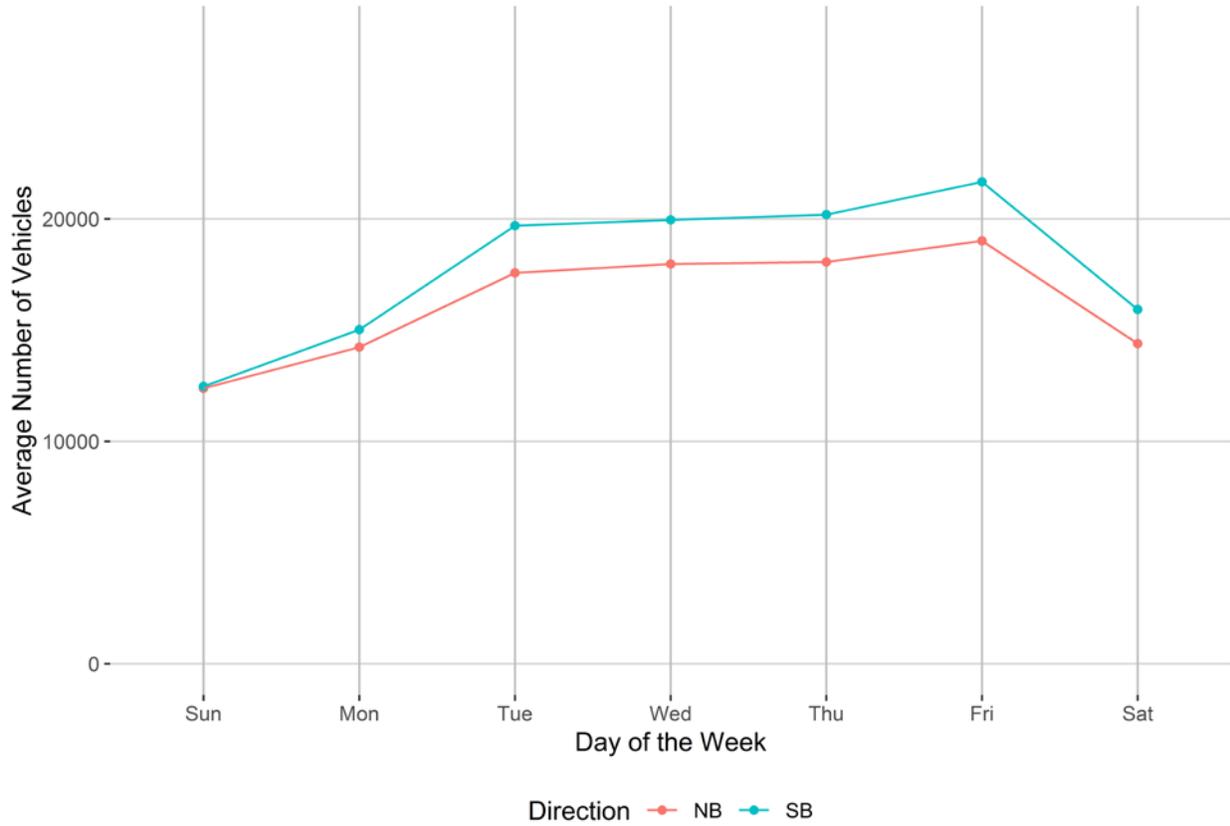


Figure 3 - Average Overweight Vehicle Volume vs. Day of the Week

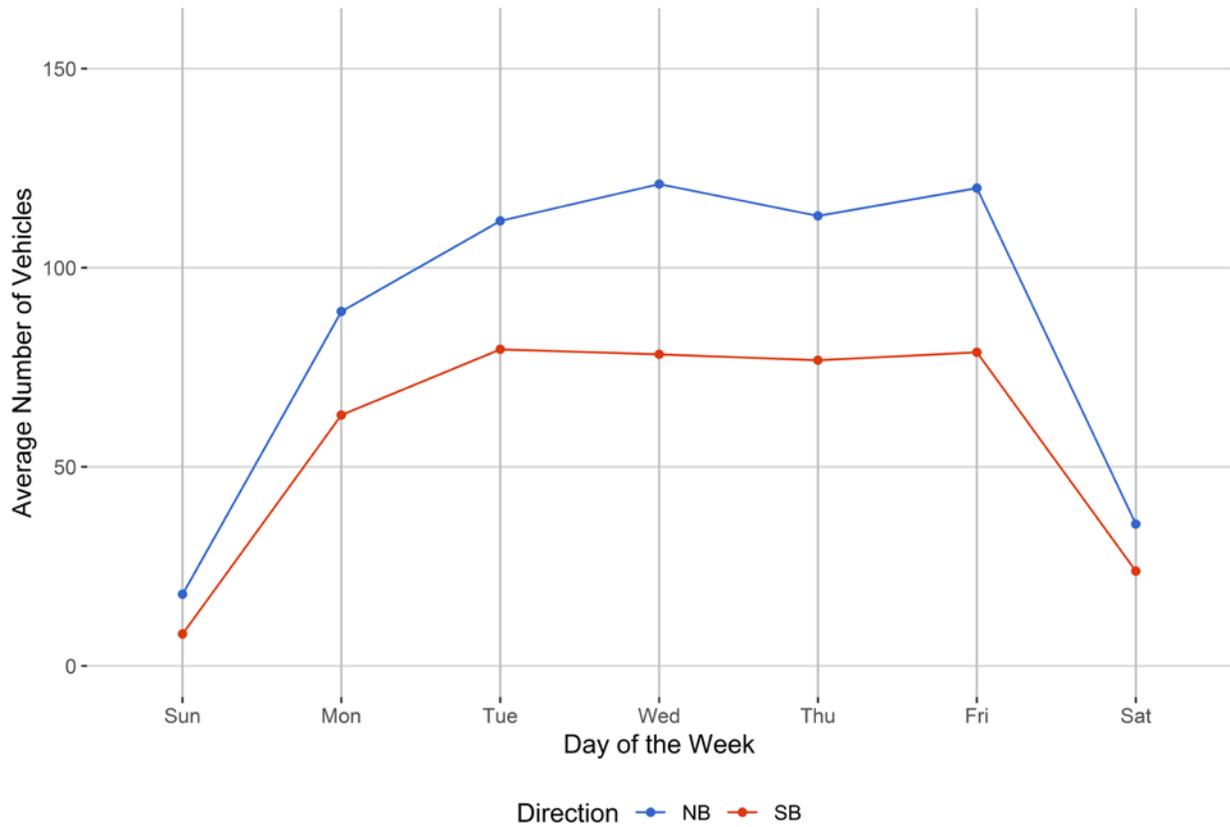


Figure 4 - Passenger Vehicles vs. Hour of the Day

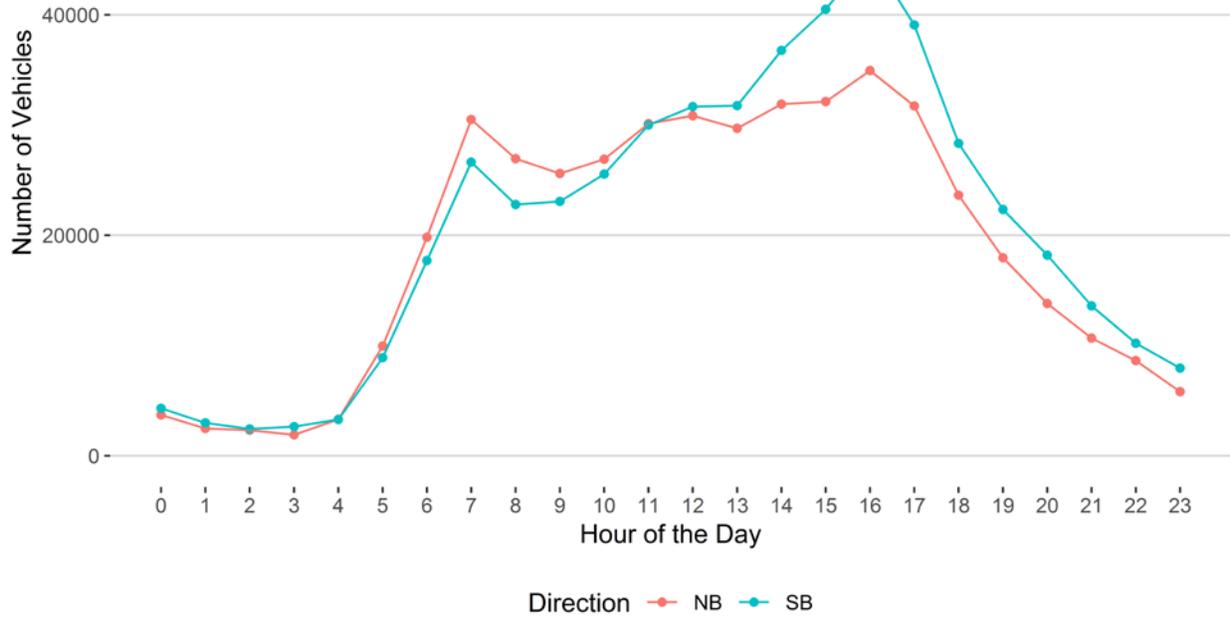


Figure 5 - Heavy Commercial Vehicles vs. Hour of the Day

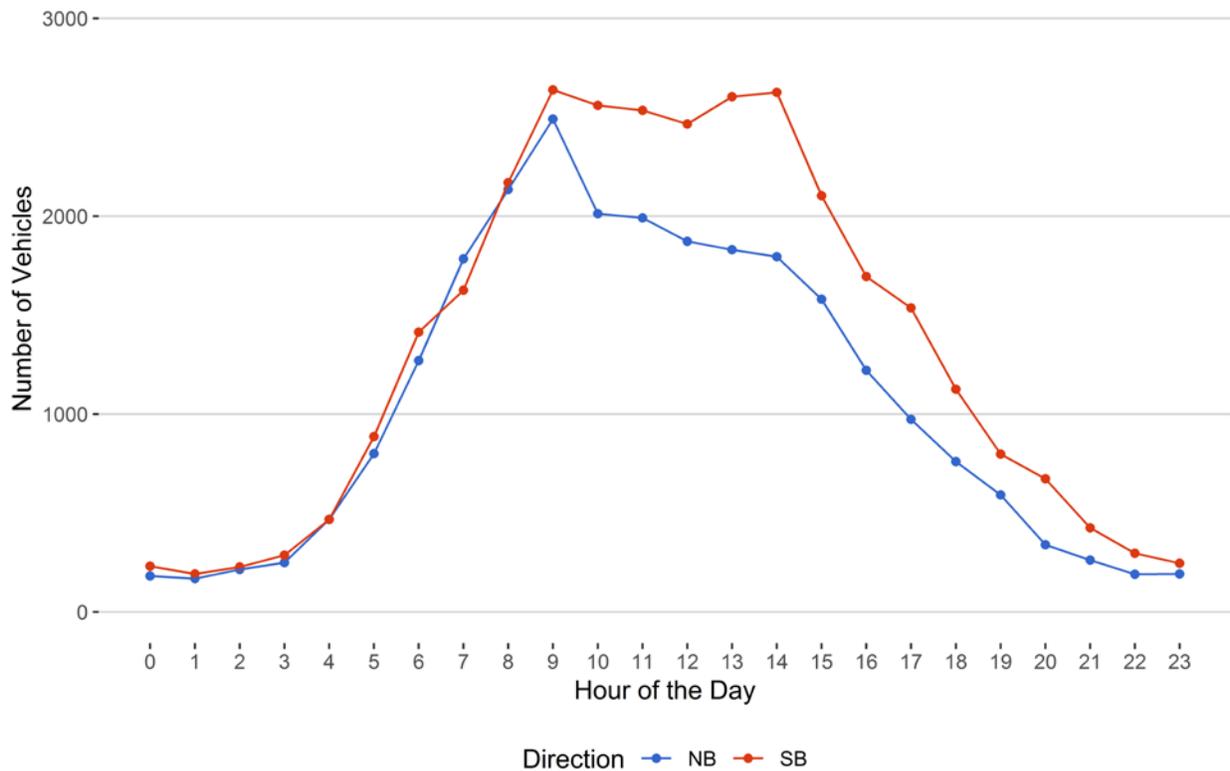


Figure 6 - Overweight Vehicles by Class vs. Hour of the Day

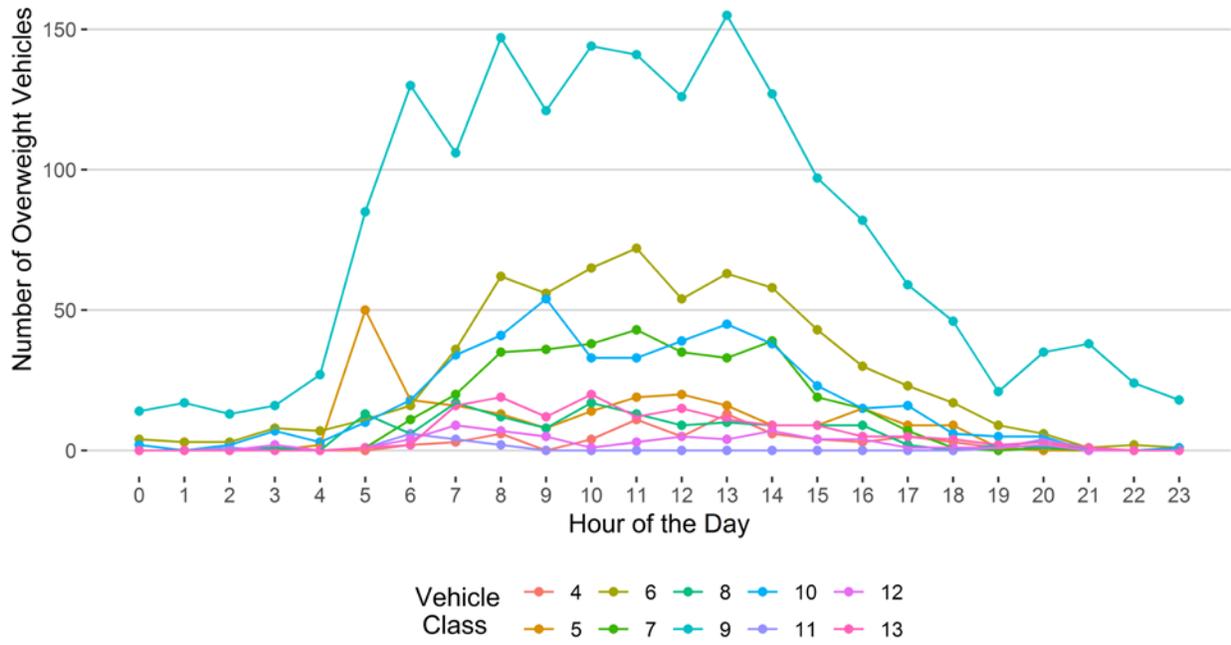


Figure 7 - Overweight Vehicles by Direction
Hour of the Day

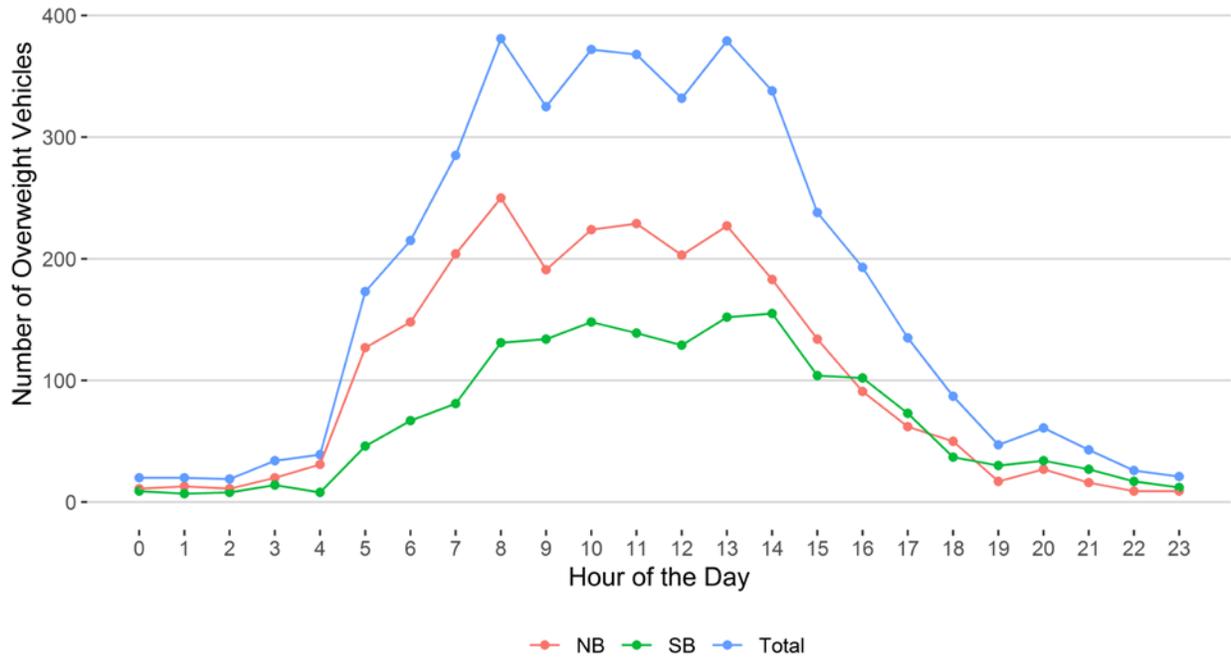
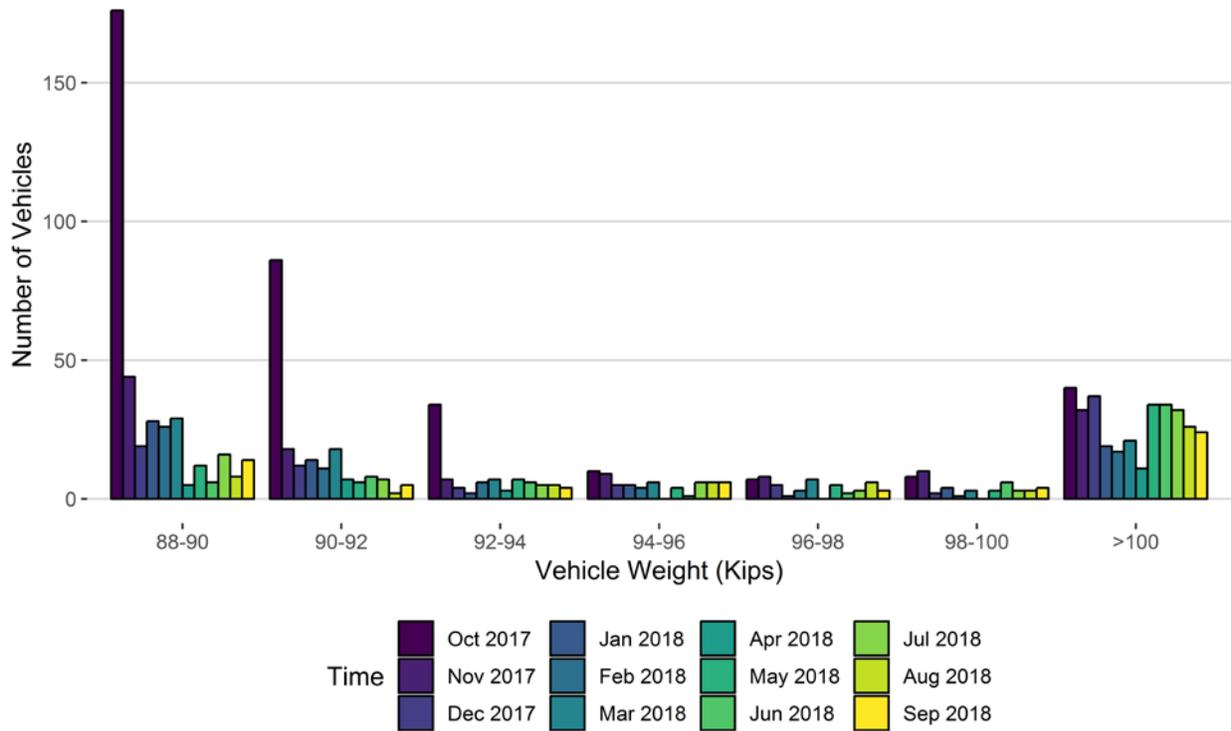
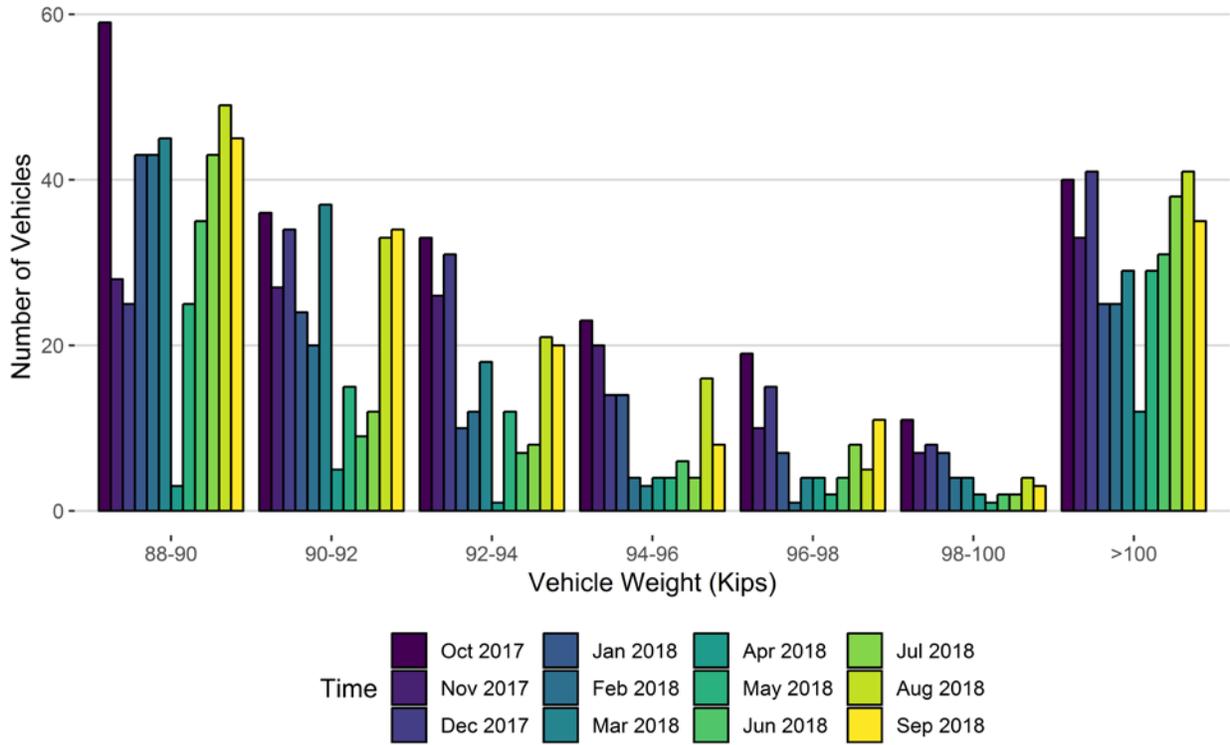


Figure 8 - Histogram of NB Vehicles Over 88,000 Pounds for Current Month



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	176	44	19	28	26	29	5	12	6	16	8	14
90-92	86	18	12	14	11	18	7	6	8	7	2	5
92-94	34	7	4	2	6	7	3	7	6	5	5	4
94-96	10	9	5	5	4	6	0	4	1	6	6	6
96-98	7	8	5	1	3	7	0	5	2	3	6	3
98-100	8	10	2	4	1	3	0	3	6	3	3	4
>100	40	32	37	19	17	21	11	34	34	32	26	24
Total	361	128	84	73	68	91	26	71	63	72	56	60

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	59	28	25	43	43	45	3	25	35	43	49	45
90-92	36	27	34	24	20	37	5	15	9	12	33	34
92-94	33	26	31	10	12	18	1	12	7	8	21	20
94-96	23	20	14	14	4	3	4	4	6	4	16	8
96-98	19	10	15	7	1	4	4	2	4	8	5	11
98-100	11	7	8	7	4	4	2	1	2	2	4	3
>100	40	33	41	25	25	29	12	29	31	38	41	35
Total	221	151	168	130	109	140	31	88	94	115	169	156

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

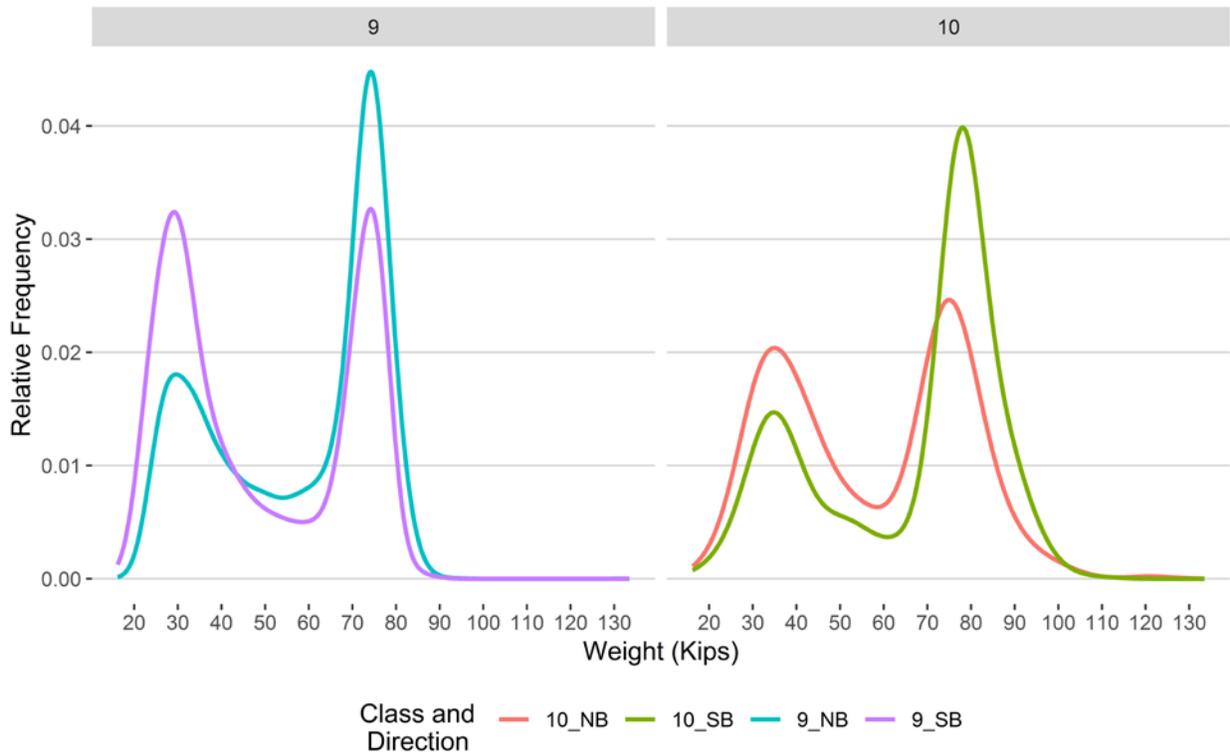


Figure 9 - Freight Percentage by Direction and Class

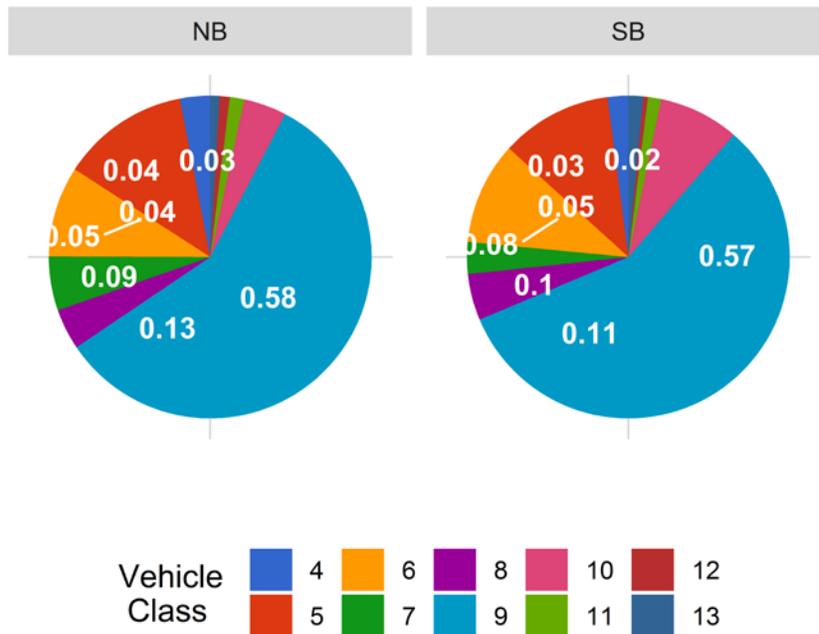


Figure 10 - Total Gross Vehicle Weight Percentage by Class and Lane

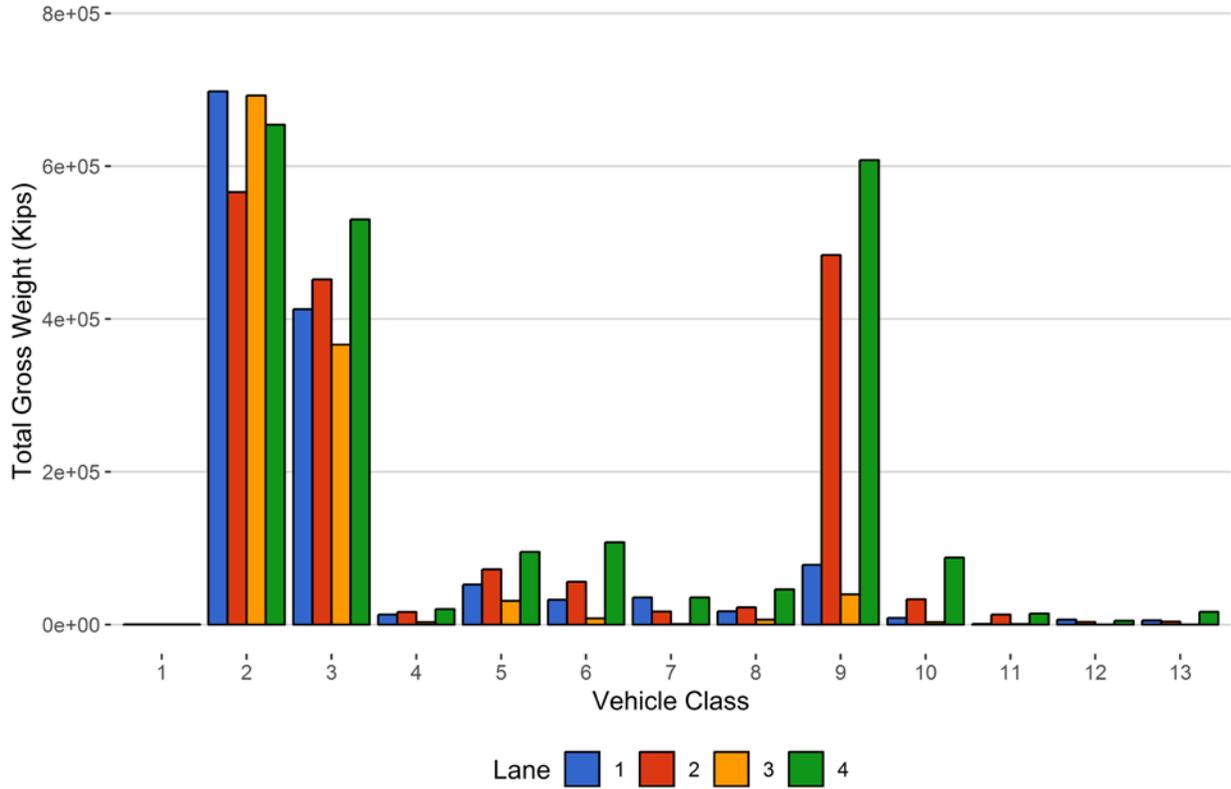


Figure 11 - Total Gross Vehicle Weight t

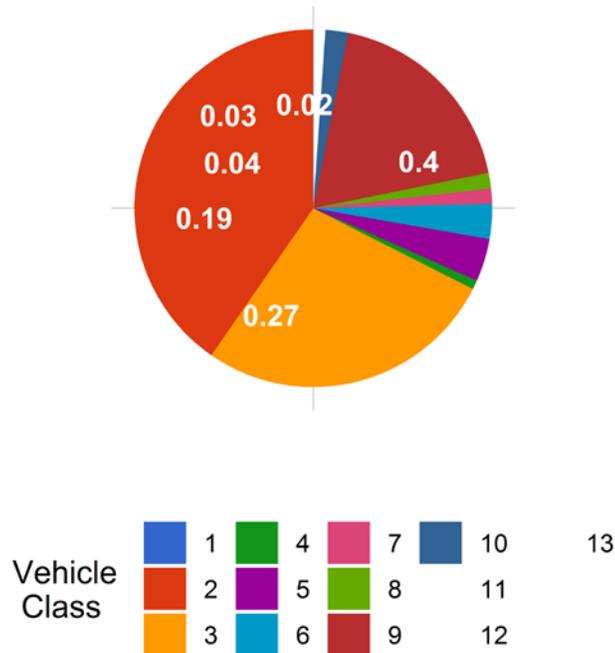


Figure 12 - Total ESALs by Class and Lane

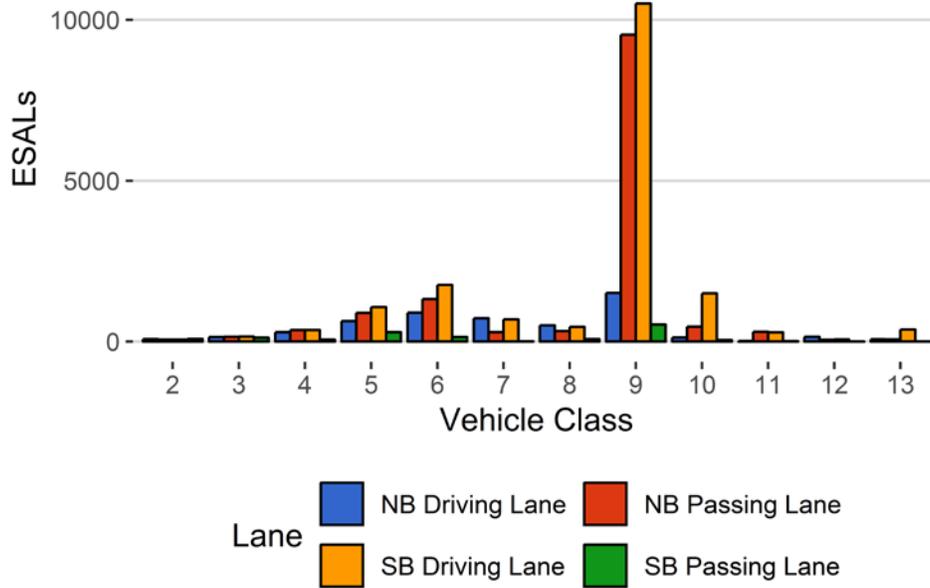


Figure 13 - ESALs by Class

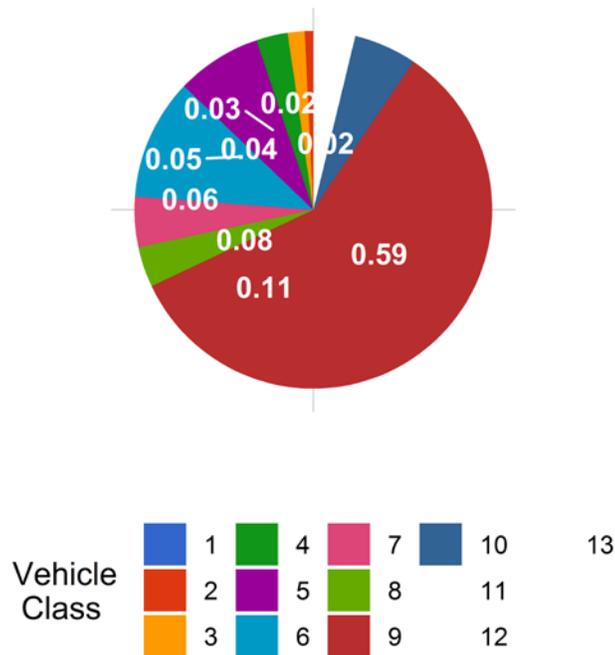


Table 1 Class 9 Front Axle Weight by Lane

<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>
February 2017	11.58	0.00	11.71	0.00	11.07	0.00	10.45	0.00
March 2017	11.67	0.74	12.00	2.43	11.10	0.26	10.50	0.53
April 2017	11.82	2.05	12.08	3.15	11.18	1.00	10.52	0.71
May 2017	11.94	3.09	12.35	5.42	11.14	0.64	10.57	1.18
June 2017	12.22	5.51	12.51	6.84	11.09	0.18	10.59	1.36
July 2017	12.23	5.63	12.54	7.05	11.23	1.46	10.64	1.87
August 2017	12.31	6.32	12.58	7.42	11.08	0.08	10.69	2.32
September 2017	12.29	6.17	12.70	8.41	11.20	1.18	10.66	2.06
October 2017	12.00	3.63	11.43	-2.37	11.35	2.52	10.72	2.56
November 2017	12.10	4.50	11.48	-1.96	11.37	2.73	10.77	3.08
December 2017	12.12	4.67	11.23	-4.12	11.38	2.82	10.82	3.54
January 2018	11.93	3.05	11.01	-6.00	11.30	2.06	10.63	1.69
February 2018	11.92	2.95	10.85	-7.39	11.33	2.33	10.43	-0.15
March 2018	11.95	3.20	11.06	-5.53	11.24	1.53	10.38	-0.63
April 2018	11.59	0.09	10.81	-7.70	10.89	-1.59	10.06	-3.69
May 2018	11.52	-0.49	10.58	-9.68	10.92	-1.34	10.09	-3.39
June 2018	11.60	0.17	10.69	-8.71	10.91	-1.39	10.16	-2.80
July 2018	11.82	2.08	10.77	-8.07	11.13	0.60	10.21	-2.33
August 2018	11.78	1.69	10.78	-7.92	11.08	0.13	10.21	-2.30
September 2018	11.73	1.30	10.85	-7.37	11.05	-0.18	10.24	-2.04

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	31	920	0.1	0	0
2	23216	696481	65.7	0	0
3	10096	302870	28.6	0	0
4	61	1825	0.2	69	1.8
5	645	19361	1.8	229	5.9
6	224	6716	0.6	650	16.8
7	52	1560	0.1	334	8.6
8	106	3191	0.3	139	3.6
9	800	24006	2.3	1789	46.3
10	73	2200	0.2	430	11.1
11	19	583	0.1	20	0.5
12	8	241	0	61	1.6
13	11	328	0	146	3.8
TOTAL	35343	1060284	100	3867	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>
2018-09-18	Tuesday	15:06:15	9	NB	1	133.5
2018-09-26	Wednesday	15:12:25	10	NB	2	121.65
2018-09-06	Thursday	18:55:22	10	NB	2	120.48
2018-09-21	Friday	10:50:26	10	SB	4	111.15
2018-09-17	Monday	17:00:24	10	SB	4	106.89
2018-09-16	Sunday	11:59:45	10	SB	4	105.68
2018-09-17	Monday	13:48:49	10	SB	3	104.8
2018-09-13	Thursday	15:19:14	10	NB	1	104.56
2018-09-23	Sunday	18:54:40	10	NB	2	104.17
2018-09-13	Thursday	13:43:07	10	SB	4	102.01

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	892	123	13.8	27753	1596	8109
5	NB	8	8901	1098	12.3	116526	8049	27051
6	NB	19	2557	255	10	84095	4348	20178
7	NB	11.5	862	0	0	52538	0	21312
8	NB	31	1219	579	47.5	27860	11920	4010
9	NB	33	9695	1686	17.4	514544	47429	125123
10	NB	33.5	724	125	17.3	38018	3706	8976
11	NB	36.5	263	32	12.2	13506	650	2537
12	NB	36.5	148	6	4.1	9669	129	2243
13	NB	31.5	110	0	0	9040	0	2787
TOTAL	****	****	25371	3904	****	893548	****	222327
<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	847	166	19.6	21278	2113	5531
5	SB	8	9551	1850	19.4	113118	12995	25755
6	SB	19	3844	469	12.2	108114	7646	21994
7	SB	11.5	625	0	0	36089	0	14451
8	SB	31	1822	1078	59.2	28218	24300	2577
9	SB	33	13184	4744	36	516829	130554	119155
10	SB	33.5	1373	141	10.3	86775	4109	22752
11	SB	36.5	293	62	21.2	13368	1660	2468
12	SB	36.5	82	7	8.5	4946	163	1104
13	SB	31.5	203	0	0	16759	0	5182
TOTAL	****	****	31824	8517	****	945494	****	220969
GRAND TOTAL	****	****	57195	12421	321	1839042	261368	443297

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	337	300	263	264	1164	0
2	697943	566056	692419	654212	2610630	40.3
3	412797	451753	366365	530238	1761154	27.2
4	13028	16321	3137	20253	52740	0.8
5	52284	72290	30976	95137	250687	3.9
6	32454	55989	8146	107614	204203	3.2
7	35449	17089	659	35430	88627	1.4
8	17362	22419	6486	46032	92298	1.4
9	78219	483755	39530	607853	1209357	18.7
10	8592	33132	3137	87747	132608	2
11	982	13174	637	14391	29184	0.5
12	6365	3433	86	5023	14907	0.2
13	5307	3733	181	16578	25799	0.4
TOTAL	1361117	1739445	1152022	2220773	6473357	100
GVW/LANE	21.03	26.87	17.8	34.31	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	0.0011
2	82	63	83	62	290	0.77	9e-04
3	145	154	119	159	577	1.53	0.004
4	296	358	64	357	1076	2.85	1.24
5	641	896	296	1075	2909	7.71	0.32
6	903	1324	146	1765	4138	10.96	1.29
7	726	292	10	692	1720	4.56	2.31
8	506	330	81	463	1379	3.65	0.91
9	1512	9538	532	10507	22090	58.52	1.93
10	128	464	52	1501	2145	5.68	2.04
11	18	308	16	288	629	1.67	2.24
12	150	57	1	70	277	0.73	2.35
13	75	68	1	375	519	1.37	3.23
TOTAL	5182	13852	1401	17314	37749	100	18
ESALS/LANE	13.7	36.7	3.7	45.9	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	1057921	34126	2165	990812	93.7	67109	6.3	60	40
Nov 2017	923269	30776	1811	868925	94.1	54344.1	5.9	60.9	39.1
Dec 2017	913329	29462	1624	862996	94.5	50333.1	5.5	60.5	39.5
Jan 2018	858959	27708	1616	808848	94.2	50110.6	5.8	60.1	39.9
Feb 2018	795786	28421	1662	749260	94.2	46525.6	5.8	59.1	40.9
Mar 2018	957360	30883	1728	903798	94.4	53562.5	5.6	60.8	39.2
Apr 2018	934763	31159	1628	885913	94.8	48850.1	5.2	60.9	39.1
May 2018	1053607	33987	1904	994590	94.4	59016.7	5.6	61.7	38.3
Jun 2018	1050563	35019	2037	989463	94.2	61099.9	5.8	60.7	39.3
Jul 2018	1102714	35571	2065	1038708	94.2	64005.8	5.8	59	41
Aug 2018	1185009	38226	2338	1112539	93.9	72469.6	6.1	61.4	38.6
Sep 2018	1060284	35343	2000	1000271	94.3	60012.8	5.7	62.2	37.8
TOTAL	11893564	-	-	11206123	-	687440	-	-	-
AVERAGE	991130	32557	1882	933844	94	57287	6	61	39

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	5387	21860	1938	23245	52430	55	45	3.5
Nov 2017	4502	18335	1386	19614	43837	55	45	2.6
Dec 2017	5033	14652	1411	18341	39436	59	41	3.4
Jan 2018	3867	13495	1148	15629	34139	57	43	3.7
Feb 2018	4269	13000	1411	14675	33354	57	43	2.6
Mar 2018	4256	15982	1290	16709	38236	55	45	3.5
Apr 2018	2887	12198	902	12945	28932	55	45	0.4
May 2018	4057	12762	1206	16207	34231	59	41	1.4
Jun 2018	4502	14753	1337	17081	37672	57	43	1.4
Jul 2018	5462	15767	2447	17423	41100	56	44	1.5
Aug 2018	5680	16641	2158	21001	45480	59	41	2.5
Sep 2018	6002	14061	1404	17344	38811	60	40	2.7
TOTAL	55904	183506	18037	210213	467659	-	-	-
AVERAGE	4659	15292	1503	17518	38972	57	43	2

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	1100540	1437948	924675	1711001	5174164
Nov 2017	1096990	1404045	940384	1574511	5015929
Dec 2017	1259004	1655262	1055154	1973361	5942780
Jan 2018	1149562	1493254	972731	1803124	5418670
Feb 2018	1319432	1720244	1091705	2152815	6284196
Mar 2018	1325028	1870703	1115831	2261593	6573155
Apr 2018	1448213	1938169	1296696	2275279	6958356
May 2018	1453125	2018291	1322478	2609501	7403395
Jun 2018	1389961	1747847	1152367	2222883	6513058
Jul 2018	1397531	2035396	1222254	2396951	7052132
Aug 2018	1205042	1716301	1046717	2030046	5998106
Sep 2018	1216056	1589362	1057242	1926795	5789455
TOTAL	15360484	20626820	13198233	24937859	74123397
AVERAGE	1280040	1718902	1099853	2078155	6176950

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	9515	0.9	14.5	584	99
Nov 2017	7927	0.9	14.9	279	82
Dec 2017	6568	0.7	13.3	253	88
Jan 2018	4336	0.5	9.3	204	55
Feb 2018	4386	0.6	9.6	178	48
Mar 2018	4983	0.5	9.5	232	58
Apr 2018	2100	0.2	4.5	57	25
May 2018	2603	0.3	4.6	159	67
Jun 2018	3262	0.3	5.4	158	73
Jul 2018	4147	0.4	6.6	187	75
Aug 2018	4748	0.4	6.8	226	74
Sep 2018	4151	0.4	7.1	220	70
TOTAL	58726	-	-	2737	814
AVERAGE	4893.8	0.5	8.8	228.1	67.8

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	293703	260883	554586	53	47
Nov 2017	235864	214931	450795	52.3	47.7
Dec 2017	206917	196474	403391	51.3	48.7
Jan 2018	193276	170391	363667	53.1	46.9
Feb 2018	190177	163838	354015	53.7	46.3
Mar 2018	219841	189443	409283	53.7	46.3
Apr 2018	176275	162266	338541	52.1	47.9
May 2018	195567	213437	409004	47.8	52.2
Jun 2018	219771	218945	438715	50.1	49.9
Jul 2018	234161	233004	467165	50.1	49.9
Aug 2018	247311	274046	521356	47.4	52.6
Sep 2018	222327	220969	443297	50.2	49.8
TOTAL	2635190	2518626	5153816	-	-
AVERAGE	219599.2	209885.5	429484.7	51.2	48.8