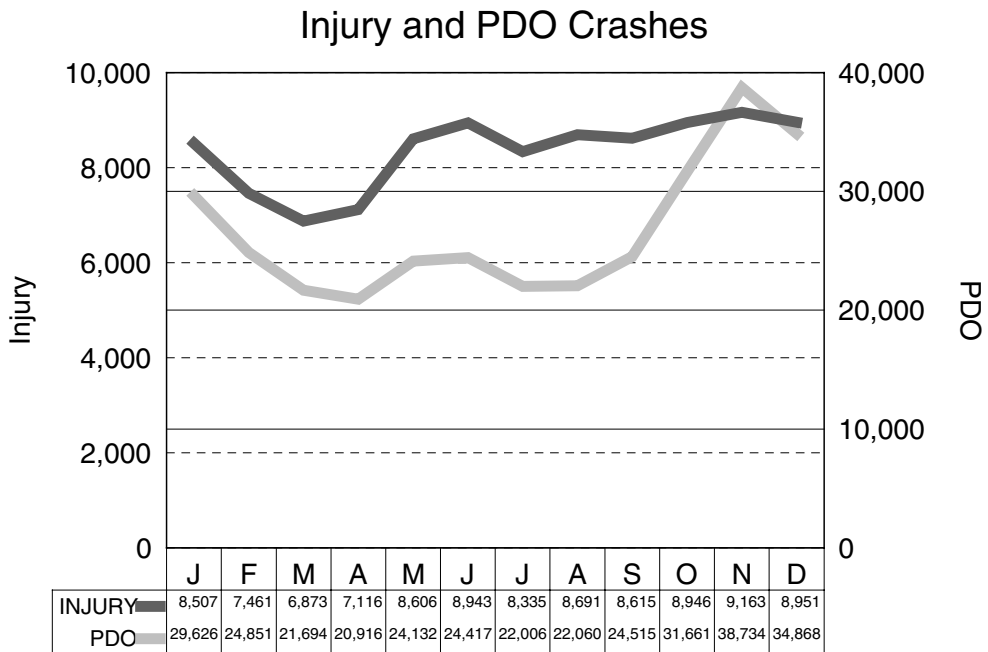
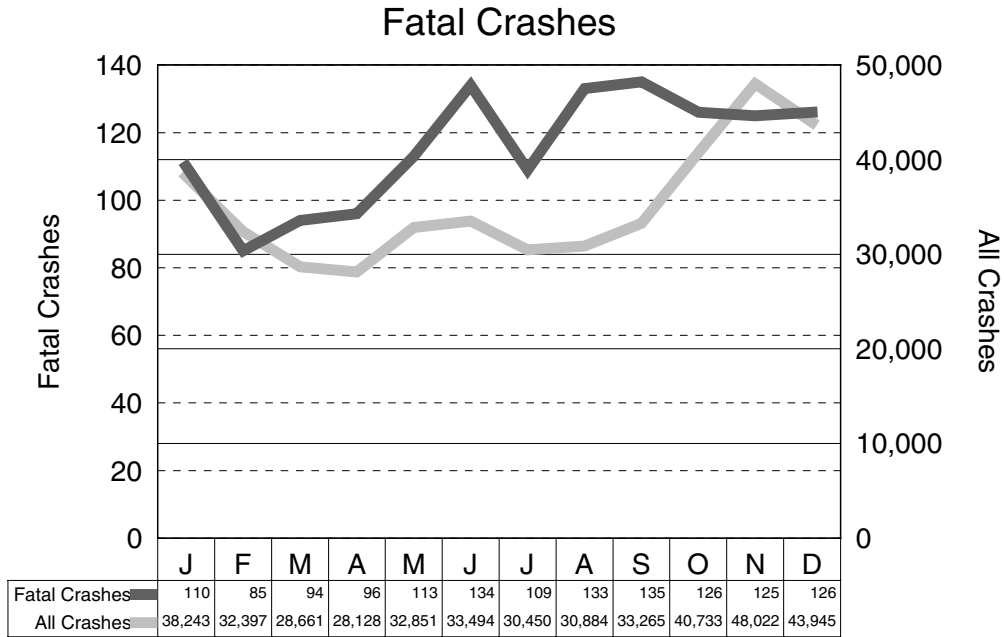


ALL CRASHES INJURY SEVERITY BY MONTH



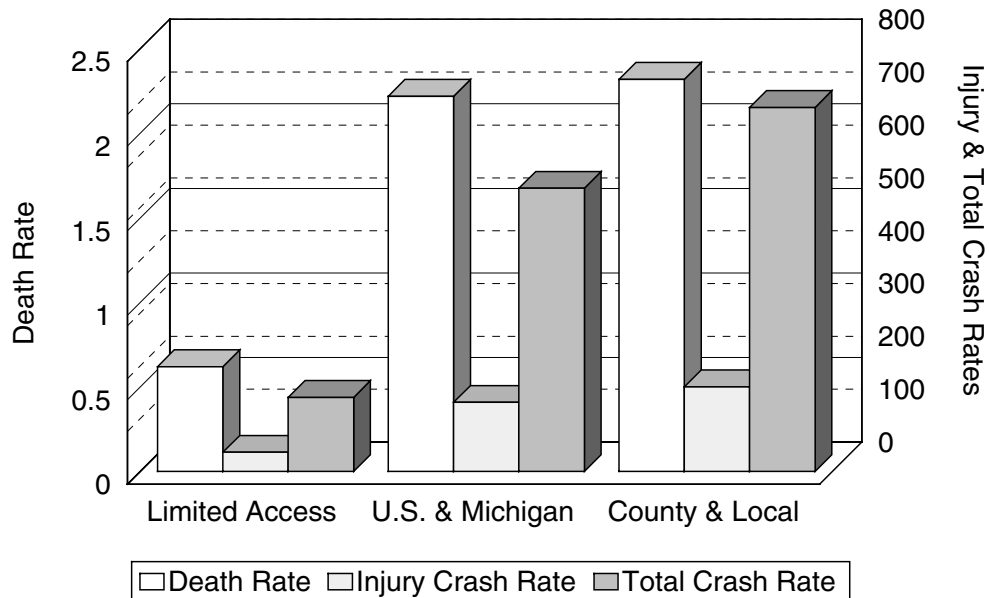
The charts on this page show that the months of June, August, and September are peak months in terms of the ratio of the number of crashes involving death or injury to the number of noninjury crashes. That is, if a person was in a motor vehicle crash during one of these months there was a higher chance of that crash resulting in death or injury to one of the involved persons than if that crash happened during one of the other months.

CRASH EXPERIENCE BY ROADWAY TYPE

The table below provides a detailed breakdown of estimated vehicle mileage, crashes, death rates (deaths per 100 million vehicle miles), and crash rates (crashes per 100 million vehicle miles) for the major roadway types in Michigan. All rates are lowest on limited access highways. 1995 estimated mileage figures were provided by the Michigan Department of Transportation [10].

STATEWIDE	Estimated Mileage (Billions)	All Crashes	Injury Crashes	Deaths	Total Crash Rate	Injury Crash Rate	Death Rate
Limited Access Roadways	25.2	35,385	9,165	156	140.4	36.4	0.6
U.S. & Michigan Roads	20.4	109,390	26,720	452	536.2	131.0	2.2
County & City Roads	40.1	276,298	64,322	929	689.0	160.4	2.3
Totals	85.7	421,073	100,207	1,537	491.3	116.9	1.8

Rates per 100 Million Vehicle Miles



CRASH TYPE

CRASH TYPE	All Crashes		Fatal Crashes		Injury			PDO
	Number	% of Total	Number	% of Fatal	A	B	C	
Single Vehicle	124,599	29.6	613	44.2	4,406	8,527	10,252	100,801
Head On	9,946	2.4	180	13.0	1,039	1,159	1,452	6,116
Head On - Left Turn	14,092	3.3	63	4.5	952	1,806	3,062	8,209
Angle	86,892	20.6	356	25.7	3,604	7,153	15,501	60,278
Rear End	99,912	23.7	67	4.8	1,857	4,381	22,487	71,120
Rear End - Left Turn	4,689	1.1	4	0.3	119	299	918	3,349
Rear End - Right Turn	3,126	0.7	0	0.0	31	70	506	2,519
Sideswipe - Same Direction	34,293	8.1	18	1.3	378	843	2,388	30,666
Sideswipe - Opposite Direct	12,978	3.1	19	1.4	220	442	1,105	11,192
Other	23,735	5.6	59	4.3	703	1,158	2,065	19,750
Unknown	6,811	1.6	7	0.5	195	329	800	5,480
Totals	421,073	100.0	1,386	100.0	13,504	26,167	60,536	319,480

Single Vehicle, Head On, and Angle crash types produce the highest number of fatal crashes (82.9%). Single Vehicle crashes include rollovers, which are particularly deadly crash types. Rear End - Turning and Sideswipe crashes produce the lowest number of fatal crashes (3.0%).

RELATION TO ROADWAY

LOCATION OF FIRST IMPACT	All Crashes		Fatal Crashes		Injury			PDO
	Number	% of Total	Number	% of Fatal	A	B	C	
On Road	358,886	85.2	953	68.8	10,023	19,533	52,355	276,022
Median	2,683	0.6	33	2.4	177	303	421	1,749
Shoulder	17,682	4.2	96	6.9	803	1,529	2,192	13,062
Outside of Shoulder/Curb	32,996	7.8	278	20.1	2,087	4,103	4,480	22,048
Gore	685	0.2	5	0.4	55	76	96	453
Other/Unknown	8,141	1.9	21	1.5	359	623	992	6,146
Totals	421,073	100.0	1,386	100.0	13,504	26,167	60,536	319,480

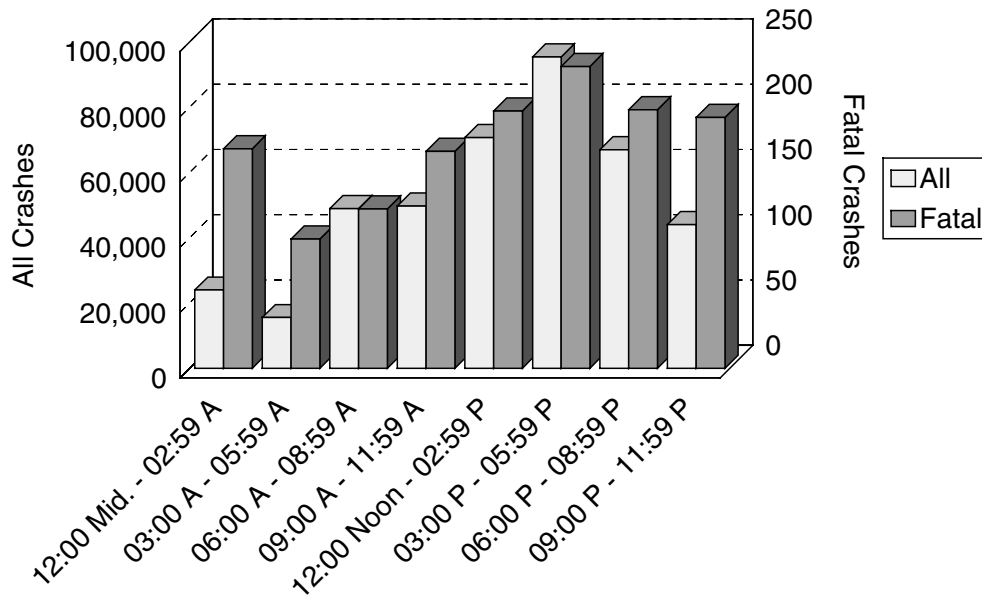
Crashes that happen outside of the normal driving lanes are overrepresented in the fatal count. Only 7.8 percent of crashes occur outside the shoulder of the road, but these crashes account for 20.1 percent of the fatal crashes.



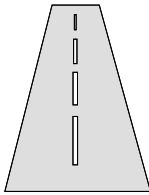
TIME AND SEVERITY

TIME OF DAY	All Crashes		Fatal Crashes		Injury			PDO
	Number	% of Total	Number	% of Fatal	A	B	C	
12:00 mid. - 02:59 a.m.	23,952	5.7	168	12.1	1,286	2,185	2,652	17,661
03:00 a.m. - 05:59 a.m.	15,538	3.7	99	7.1	571	1,002	1,349	12,517
06:00 a.m. - 08:59 a.m.	48,927	11.6	122	8.8	1,283	2,413	6,539	38,570
09:00 a.m. - 11:59 a.m.	49,687	11.8	166	12.0	1,479	2,987	7,720	37,335
12:00 noon - 02:59 p.m.	70,658	16.8	197	14.2	2,256	4,307	11,895	52,003
03:00 p.m. - 05:59 p.m.	95,367	22.6	231	16.7	2,852	6,062	16,059	70,163
06:00 p.m. - 08:59 p.m.	66,946	15.9	198	14.3	2,135	4,135	8,642	51,836
09:00 p.m. - 11:59 p.m.	43,966	10.4	192	13.9	1,506	2,800	5,000	34,468
Unknown	6,032	1.4	13	0.9	136	276	680	4,927
Total	421,073	100.0	1,386	100.0	13,504	26,167	60,536	319,480

Time and Severity



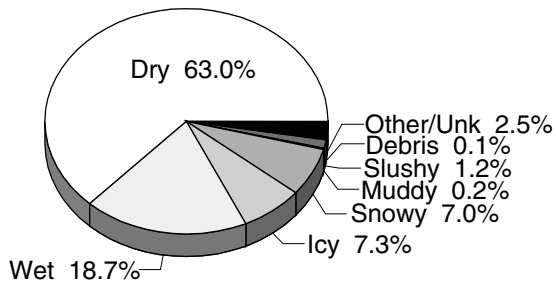
Crash frequencies peak in the late afternoon, then drop off steadily until 6:00 AM (the morning rush hour). Fatal crash frequencies rise with the frequency of other crashes, but continue at a high rate well into the early morning hours. There are proportionally more fatal crashes during the midnight to 2:59 AM time period.



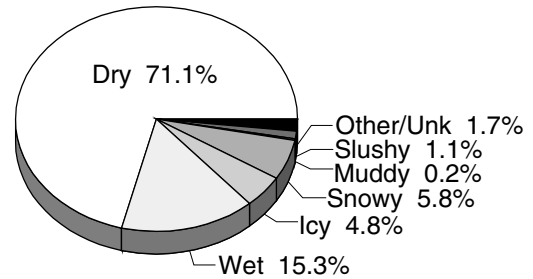
ROAD CONDITION

ROAD SURFACE CONDITION	All Crashes		Fatal Crashes		Injury			PDO
	Number	% of Total	Number	% of Fatal	A	B	C	
Dry	265,420	63.0	986	71.1	9,160	17,503	37,934	199,837
Wet	78,943	18.7	212	15.3	2,316	4,779	13,244	58,392
Icy	30,905	7.3	67	4.8	802	1,632	4,068	24,336
Snowy	29,513	7.0	80	5.8	718	1,332	3,224	24,159
Muddy	727	0.2	3	0.2	36	70	94	524
Slushy	5,017	1.2	15	1.1	179	318	736	3,769
Debris	214	0.1	0	0.0	13	24	29	148
Other/Unknown	10,334	2.5	23	1.7	280	509	1,207	8,315
Totals	421,073	100.0	1,386	100.0	13,504	26,167	60,536	319,480

ALL CRASHES



FATAL CRASHES



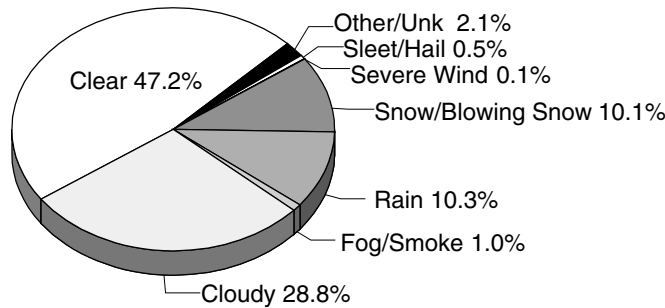
Most crashes (63.0%) and most fatal crashes (71.1%) occur on dry roads. This indicates that Michigan drivers do a good job of adjusting their driving behavior for bad road conditions.



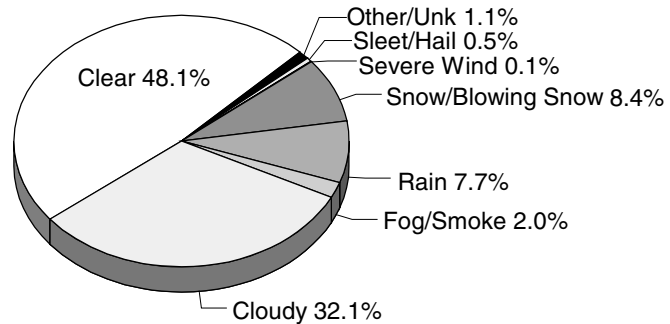
WEATHER CONDITION

WEATHER CONDITION	All Crashes		Fatal Crashes		Injury			PDO
	Number	% of Total	Number	% of Fatal	A	B	C	
Clear	198,653	47.2	667	48.1	7,055	12,909	28,287	149,735
Cloudy	121,131	28.8	445	32.1	3,666	7,568	17,485	91,967
Fog/Smoke	4,003	1.0	28	2.0	154	240	488	3,093
Rain	43,443	10.3	107	7.7	1,289	2,744	7,517	31,786
Snow/Blowing Snow	42,557	10.1	116	8.4	1,097	2,178	5,441	33,725
Severe Wind	247	0.1	1	0.1	10	18	27	191
Sleet/Hail	2,231	0.5	7	0.5	57	122	321	1,724
Other/Unknown	8,808	2.1	15	1.1	176	388	970	7,259
Totals	421,073	100.0	1,386	100.0	13,504	26,167	60,536	319,480

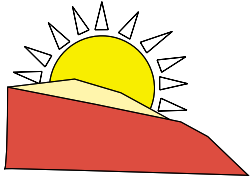
ALL CRASHES



FATAL CRASHES



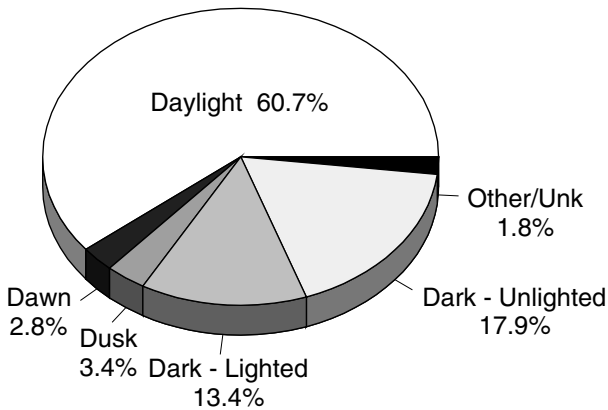
The majority of all crashes occur in good weather (47.2%) as do the majority of fatal crashes (48.1%). Of bad weather conditions, fog and smoke present the greatest hazard as they are overrepresented in fatal crashes.



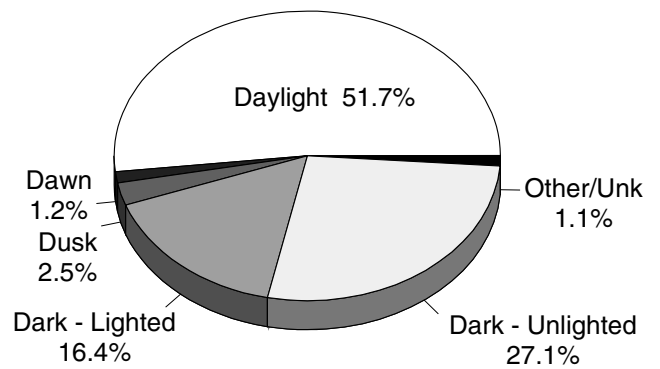
LIGHT CONDITION

LIGHT CONDITION	All Crashes		Fatal Crashes		Injury			PDO
	Number	% of Total	Number	% of Fatal	A	B	C	
Daylight	255,461	60.7	716	51.7	8,169	16,486	42,225	187,865
Dawn	11,891	2.8	17	1.2	250	511	1,224	9,889
Dusk	14,127	3.4	35	2.5	409	716	1,835	11,132
Dark - Lighted	56,450	13.4	227	16.4	2,328	4,195	8,835	40,865
Dark - Unlighted	75,497	17.9	376	27.1	2,205	3,945	5,588	63,383
Other/Unknown	7,647	1.8	15	1.1	143	314	829	6,346
Totals	421,073	100.0	1,386	100.0	13,504	26,167	60,536	319,480

ALL CRASHES



FATAL CRASHES



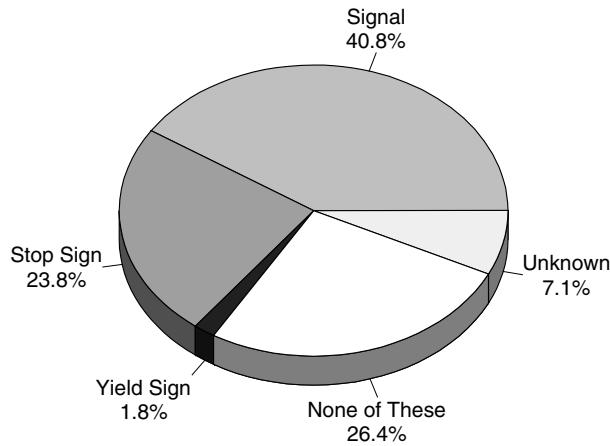
The majority (60.7%) of all crashes happen during daylight hours. Dark conditions create the greatest hazard, as they are overrepresented in fatal crashes. Areas without street lights have the highest fatality rate.



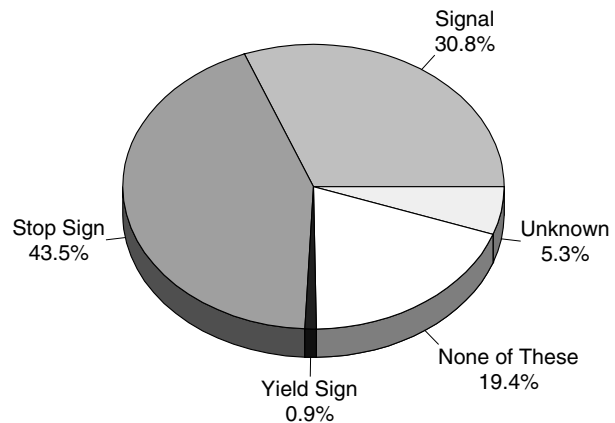
CRASH RATES AT INTERSECTIONS BY TRAFFIC CONTROL TYPE

TRAFFIC CONTROL TYPE	All Crashes		Fatal Crashes		Injury			PDO
	Number	% of Total	Number	% of Fatal	A	B	C	
Signal	64,147	40.8	133	30.8	2,149	4,616	13,667	43,582
Stop Sign	37,460	23.8	188	43.5	1,574	3,170	6,636	25,892
Yield Sign	2,901	1.8	4	0.9	108	261	605	1,923
None of These	41,573	26.4	84	19.4	1,335	2,715	6,684	30,755
Unknown	11,174	7.1	23	5.3	363	673	1,827	8,288
Totals	157,255	100.0	432	100.0	5,529	11,435	29,419	110,440

ALL CRASHES



FATAL CRASHES





CONSTRUCTION ZONE CRASHES

CONSTRUCTION ZONE TYPE	All Crashes		Fatal Crashes		Injury			PDO
	Number	% of Total	Number	% of Fatal	A	B	C	
Construction/Maintenance								
Activity - On Road								
Lane Closed	2,361	43.4	4	25.0	41	110	410	1,796
Lane Open	783	14.4	2	12.5	22	44	128	587
Unk Lane Closure	133	2.4	0	0.0	6	4	15	108
Activity - Off Road								
Lane Closed	244	4.5	1	6.3	10	13	42	178
Lane Open	577	10.6	2	12.5	14	43	98	420
Unk Lane Closure	39	0.7	0	0.0	1	2	6	30
Activity - None								
Lane Closed	508	9.3	1	6.3	20	34	86	367
Lane Open	540	9.9	6	37.5	19	45	85	385
Unk Lane Closure	32	0.6	0	0.0	0	2	8	22
Activity - Unknown								
Lane Closed	75	1.4	0	0.0	2	7	9	57
Lane Open	34	0.6	0	0.0	0	1	3	30
Unk Lane Closure	108	2.0	0	0.0	3	7	10	88
Sub-Total	5,434	100.0	16	100.0	138	312	900	4,068
Utility								
Activity - On Road								
Lane Closed	122	25.9	0	0.0	1	4	13	104
Lane Open	96	20.4	0	0.0	6	5	12	73
Unk Lane Closure	11	2.3	0	0.0	0	0	4	7
Activity - Off Road								
Lane Closed	38	8.1	0	0.0	0	3	5	30
Lane Open	63	13.4	0	0.0	3	7	11	42
Unk Lane Closure	5	1.1	0	0.0	1	0	1	3
Activity - None								
Lane Closed	9	1.9	0	0.0	0	0	3	6
Lane Open	41	8.7	0	0.0	1	4	7	29
Unk Lane Closure	1	0.2	0	0.0	0	1	0	0
Activity - Unknown								
Lane Closed	3	0.6	0	0.0	0	0	0	3
Lane Open	3	0.6	0	0.0	0	0	1	2
Unk Lane Closure	79	16.8	0	0.0	1	7	10	61
Sub-Total	471	100.0	0	0.0	13	31	67	360
Total	5,905		16		151	343	967	4,428

