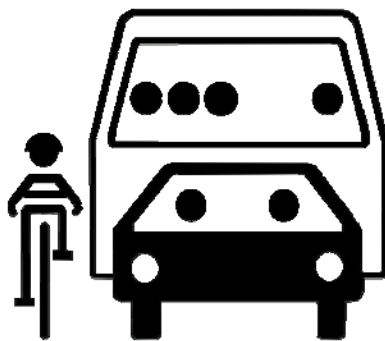


2010 TRAFFIC CRASH REPORT



AUGUST 2011

WASHTENAW AREA TRANSPORTATION STUDY

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EXECUTIVE SUMMARY

Police Agencies in Washtenaw County recorded 10,023 crashes in 2010, an increase of 3.2% from 2009. Agencies reporting the highest numbers of crashes include the Ann Arbor Police Department, the Washtenaw County Sheriff, and the Michigan State Police, making up 75.1% of recorded crashes. This report provides detail on the recorded crashes in Washtenaw County both by police agency and community.

WASHTENAW COUNTY DEMOGRAPHICS

- According to the 2010 Census the Washtenaw County population is 344,791, a 7% increase since 2000.
- Daily vehicle miles traveled (VMT) estimates totaled 13 million in 2010. The crash rate for 2010 was 2.11 crashes per 1,000,000 miles traveled. (2007 WATS model)
- Washtenaw County has 1,278 miles of public streets and roads in the urbanized area and 1,135 miles of public rural roads.
- The WATS model identifies 157 congested road miles (14%) of the 1,056 miles of county federal aid eligible roads.

2010 CRASH FACTS

- In 2010, the single motor vehicle crash occurred most frequently in Washtenaw County. There were 3,168 crashes involving only one motor vehicle, representing 31.8% of all crashes.
- Injuries, which include fatalities, incapacitating injuries, non-incapacitating injuries, and possible injuries, occurred most often in head-on crashes: 39.1% of the head-on crashes caused an injury.
- Rear end and angle crashes happened most frequently within urban areas while single motor vehicle crashes occurred more frequently in rural areas.
- There were 20 fatal crashes, resulting in 20 deaths, reported in Washtenaw County in 2010 compared to 26 crashes in 2009. This includes five alcohol related deaths and three pedestrian deaths.
- Only 3.1% of all crashes in Washtenaw County involved drivers under the influence of alcohol. However, 8.1% crashes that caused injury and 25% of fatal crashes involved drivers under the influence of alcohol (5 fatalities). All of the alcohol involved statistics are down from 2009.
- Most reported bicycle and pedestrian crashes resulted in injury. Of 105 crashes involving bicycles, 90 resulted in injury (85.7%), none were fatal. Of 80 crashes involving pedestrians, 74 resulted in injury (92.5%), three that were fatal.
- Deer were involved in 1,176 crashes, totaling 36.6% of single vehicle crashes and 11.8% of all crashes in the county. The months of October and November have the highest number of deer crashes.

DATA COLLECTION

WATS produces monthly reports for the WATS website, showing the number of crashes by type and by community. WATS obtains crash data for municipalities and agencies from the Michigan State Police and cause of crashes from Michigan Traffic Crash Facts. Crash totals may vary slightly when comparing agencies, municipalities, and cause of crashes. All municipality totals include the entire City of Milan while all agency totals include data reported from outside the county beyond just the Monroe portion of Milan. Each table is sourced and WATS calculates percentages based on the source data.

For more information:

- WATS aggregates Washtenaw County crash data on the WATS website at <http://www.miwats.org/WATS/leftside/transdata/crashes/2010/crash10.html>
- The Crash Facts website at <http://www.michigantrafficcrashfacts.org/> provides information on specific crashes, maps, and data from throughout Michigan. Use the Data Query tool for maps and crash reports.
- SEMCOG also maintains a searchable database of crashes in Southeastern Michigan at <http://www.semco.org/Data/Apps/crash.cfm>.

GENERAL TRENDS

Washtenaw County (including the Monroe County portion of the City of Milan) recorded 9,971 crashes in 2010, an increase of 2.6% from 2009. Agencies reported 10,023 crashes in 2010 since they respond to some crashes outside County lines. The agencies reporting the highest numbers of crashes include the Ann Arbor Police Department, the Washtenaw County Sherriff, and the Michigan State Police, comprising 75% of crashes in the county. Refer to Table 1 for the crash totals for the year.

A few agencies experienced a decline in crash frequency in 2010 from 2009. The Milan Police Department reported a drop of 19.5%, while the University of Michigan DPS crash frequency dropped 5.8%.

Most agencies' crash totals rose in 2010 from 2009. Eastern Michigan University DPS reported a rise of 107.1% in reported crashes and the Saline Police Department experienced a rise of 35.7%. In addition, the Pittsfield Township Police Department experienced a 22.9% rise.

Table 1: Total Crashes by Agency

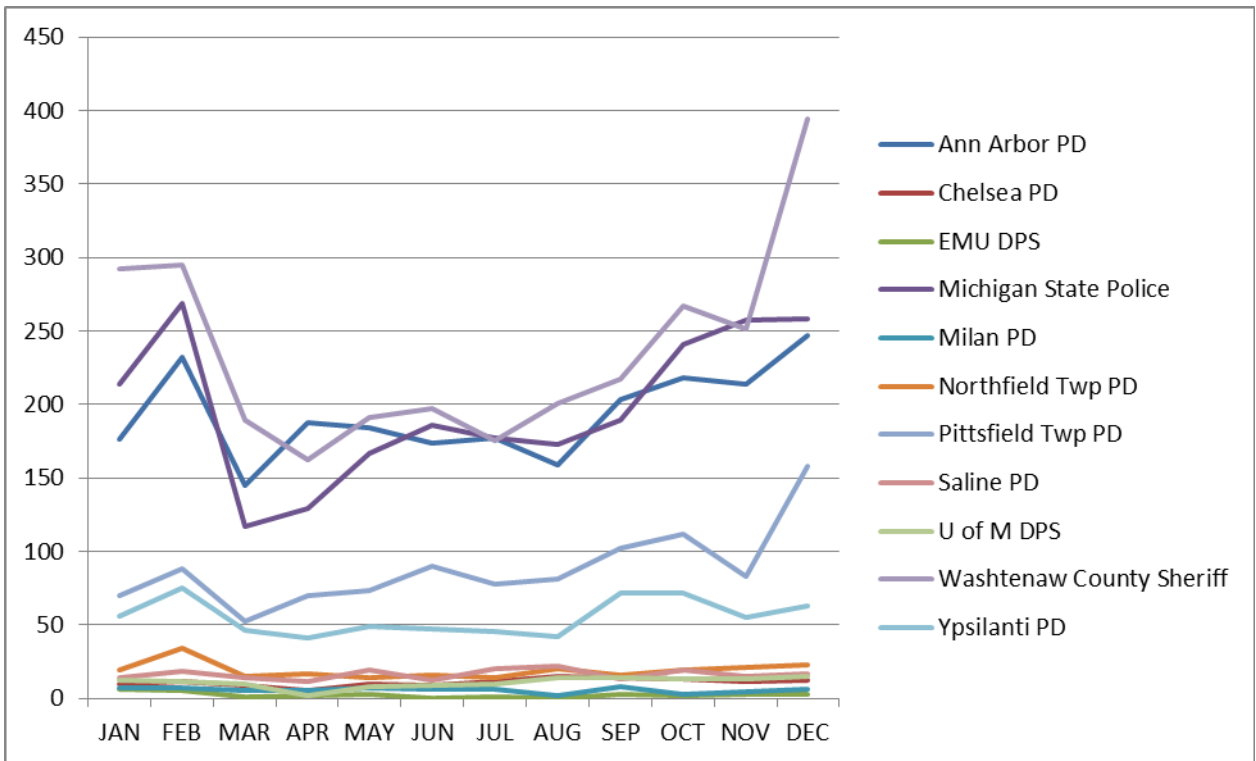
	2009	2010	Amount	Change
Ann Arbor PD	2,291	2,317	26	1.13%
Chelsea PD	127	130	3	2.36%
EMU DPS	14	29	15	107.14%
Michigan State Police	2,357	2,377	20	0.85%
Milan PD	82	66	-16	-19.51%
Northfield Twp PD	235	228	-7	-2.98%
Pittsfield Twp PD	860	1057	197	22.91%
Saline PD	143	194	51	35.66%
U of M DPS	139	131	-8	-5.76%
Washtenaw County Sheriff	2,840	2,831	-9	-0.32%
Ypsilanti PD	629	663	34	5.41%
Total	9,717	10,023	306	3.15%

Source: Michigan State Police

SEASONAL VARIATION

Crashes increase in the winter months, from October to February and decline in the spring and summer months, April to September. October, November, December, and February had the highest crash frequency in 2010. March and April had the lowest. Please refer to Chart 1 and Table 2 for 2010 data. Table 3 lists all crashes by month and compares them to crashes during the same period in 2009. December had the largest increase in crashes from 2009 due to increased snowfall. Both January and March had less snow in 2010 compared to 2009 and the crashes were much lower.

Chart 1: Crashes by Month by Agency



Source: Michigan State Police

Table 2: Crashes by Month by Agency

	Ann Arbor Police Department	Chelsea Police Department	EMU Department of Public Safety	Michigan State Police	Milan Police Department	Northfield Township Police Department	Pittsfield Township Police Department	Saline Police Department	U of M Department of Public Safety	Washtenaw County Sheriff	Ypsilanti Police Department	Total	Monthly Percent of Total
January	176	10	6	214	7	19	70	14	12	292	56	876	8.7%
February	232	11	5	269	7	34	88	18	11	295	75	1,045	10.4%
March	145	9	1	117	5	15	52	14	10	189	46	603	6.0%
April	188	5	2	129	5	17	70	11	2	162	41	632	6.3%
May	184	10	3	167	7	14	73	19	8	191	49	725	7.2%
June	174	9	0	186	6	16	90	12	9	197	47	746	7.4%
July	177	11	1	177	6	14	78	20	10	175	45	714	7.1%
August	159	15	0	173	2	20	81	22	14	201	42	729	7.3%
September	203	14	3	189	8	16	102	13	14	217	72	851	8.5%
October	218	13	2	241	3	19	112	19	13	267	72	979	9.8%
November	214	11	3	257	4	21	83	15	13	251	55	927	9.2%
December	247	12	3	258	6	23	158	17	15	394	63	1,196	11.9%
Total	2,317	130	29	2,377	66	228	1,057	194	131	2831	663	10,023	100.0%

Source: Michigan State Police

Table 3: 2009 and 2010 Monthly Crash Totals by Agency

	<i>January</i>			
	2009	2010	Amount	Change
Ann Arbor PD	316	176	-140	-44.3%
Chelsea PD	14	10	-4	-28.6%
EMU DPS	1	6	5	500.0%
Michigan State Police	463	214	-249	-53.8%
Milan PD	6	7	1	16.7%
Northfield Twp PD	35	19	-16	-45.7%
Pittsfield Twp PD	112	70	-42	-37.5%
Saline PD	19	14	-5	-26.3%
U of M DPS	24	12	-12	-50.0%
Washtenaw Co. Sheriff	353	292	-61	-17.3%
Ypsilanti PD	81	56	-25	-30.9%
Total	1,424	876	-548	-38.5%

	<i>February</i>			
	2009	2010	Amount	Change
Ann Arbor PD	183	232	49	26.8%
Chelsea PD	7	11	4	57.1%
EMU DPS	1	5	4	400.0%
Michigan State Police	190	269	79	41.6%
Milan PD	8	7	-1	-12.5%
Northfield Twp PD	15	34	19	126.7%
Pittsfield Twp PD	70	88	18	25.7%
Saline PD	8	18	10	125.0%
U of M DPS	16	11	-5	-31.3%
Washtenaw Co. Sheriff	263	295	32	12.2%
Ypsilanti PD	51	75	24	47.1%
Total	812	1,045	233	28.7%

	<i>March</i>			
	2009	2010	Amount	Change
Ann Arbor PD	136	145	9	6.6%
Chelsea PD	6	9	3	50.0%
EMU DPS	0	1	1	100.0%
Michigan State Police	108	117	9	8.3%
Milan PD	8	5	-3	-37.5%
Northfield Twp PD	16	15	-1	-6.3%
Pittsfield Twp PD	57	52	-5	-8.8%
Saline PD	7	14	7	100.0%
U of M DPS	9	10	1	11.1%
Washtenaw Co. Sheriff	191	189	-2	-1.0%
Ypsilanti PD	54	46	-8	-14.8%
Total	592	603	11	1.9%

	<i>April</i>			
	2009	2010	Amount	Change
Ann Arbor PD	169	188	19	11.2%
Chelsea PD	7	5	-2	-28.6%
EMU DPS	1	2	1	100.0%
Michigan State Police	131	129	-2	-1.5%
Milan PD	5	5	0	0.0%
Northfield Twp PD	11	17	6	54.5%
Pittsfield Twp PD	57	70	13	22.8%
Saline PD	18	11	-7	-38.9%
U of M DPS	14	2	-12	-85.7%
Washtenaw Co. Sheriff	178	162	-16	-9.0%
Ypsilanti PD	46	41	-5	-10.9%
Total	637	632	-5	-0.8%

	<i>May</i>			
	2009	2010	Amount	Change
Ann Arbor PD	182	184	2	1.1%
Chelsea PD	20	10	-10	-50.0%
EMU DPS	1	3	2	200.0%
Michigan State Police	156	167	11	7.1%
Milan PD	4	7	3	75.0%
Northfield Twp PD	19	14	-5	-26.3%
Pittsfield Twp PD	59	73	14	23.7%
Saline PD	12	19	7	58.3%
U of M DPS	6	8	2	33.3%
Washtenaw Co. Sheriff	204	191	-13	-6.4%
Ypsilanti PD	49	49	0	0.0%
Total	712	725	13	1.8%

	<i>June</i>			
	2009	2010	Amount	Change
Ann Arbor PD	178	174	-4	-2.2%
Chelsea PD	11	9	-2	-18.2%
EMU DPS	0	0	0	0.0%
Michigan State Police	173	186	13	7.5%
Milan PD	10	6	-4	-40.0%
Northfield Twp PD	19	16	-3	-15.8%
Pittsfield Twp PD	62	90	28	45.2%
Saline PD	10	12	2	20.0%
U of M DPS	13	9	-4	-30.8%
Washtenaw Co. Sheriff	189	197	8	4.2%
Ypsilanti PD	39	47	8	20.5%
Total	704	746	42	6.0%

	<i>July</i>			
	2009	2010	Amount	Change
Ann Arbor PD	152	177	25	16.4%
Chelsea PD	14	11	-3	-21.4%
EMU DPS	1	1	0	0.0%
Michigan State Police	135	177	42	31.1%
Milan PD	7	6	-1	-14.3%
Northfield Twp PD	16	14	-2	-12.5%
Pittsfield Twp PD	72	78	6	8.3%
Saline PD	11	20	9	81.8%
U of M DPS	6	10	4	66.7%
Washtenaw Co. Sheriff	193	175	-18	-9.3%
Ypsilanti PD	40	45	5	12.5%
Total	647	714	67	10.4%

	<i>August</i>			
	2009	2010	Amount	Change
Ann Arbor PD	142	159	17	12.0%
Chelsea PD	8	15	7	87.5%
EMU DPS	0	0	0	0.0%
Michigan State Police	169	173	4	2.4%
Milan PD	3	2	-1	-33.3%
Northfield Twp PD	16	20	4	25.0%
Pittsfield Twp PD	54	81	27	50.0%
Saline PD	14	22	8	57.1%
U of M DPS	4	14	10	250.0%
Washtenaw Co. Sheriff	180	201	21	11.7%
Ypsilanti PD	39	42	3	7.7%
Total	629	729	100	15.9%

	<i>September</i>			
	2009	2010	Amount	Change
Ann Arbor PD	176	203	27	15.3%
Chelsea PD	13	14	1	7.7%
EMU DPS	2	3	1	50.0%
Michigan State Police	137	189	52	38.0%
Milan PD	3	8	5	166.7%
Northfield Twp PD	20	16	-4	-20.0%
Pittsfield Twp PD	72	102	30	41.7%
Saline PD	15	13	-2	-13.3%
U of M DPS	15	14	-1	-6.7%
Washtenaw Co. Sheriff	208	217	9	4.3%
Ypsilanti PD	59	72	13	22.0%
Total	720	851	131	18.2%

	<i>October</i>			
	2009	2010	Amount	Change
Ann Arbor PD	213	218	5	2.3%
Chelsea PD	12	13	1	8.3%
EMU DPS	3	2	-1	-33.3%
Michigan State Police	232	241	9	3.9%
Milan PD	12	3	-9	-75.0%
Northfield Twp PD	22	19	-3	-13.6%
Pittsfield Twp PD	74	112	38	51.4%
Saline PD	7	19	12	171.4%
U of M DPS	8	13	5	62.5%
Washtenaw Co. Sheriff	300	267	-33	-11.0%
Ypsilanti PD	65	72	7	10.8%
Total	948	979	31	3.3%

	<i>November</i>			
	2009	2010	Amount	Change
Ann Arbor PD	214	214	0	0.0%
Chelsea PD	7	11	4	57.1%
EMU DPS	2	3	1	50.0%
Michigan State Police	248	257	9	3.6%
Milan PD	8	4	-4	-50.0%
Northfield Twp PD	23	21	-2	-8.7%
Pittsfield Twp PD	83	83	0	0.0%
Saline PD	10	15	5	50.0%
U of M DPS	8	13	5	62.5%
Washtenaw Co. Sheriff	279	251	-28	-10.0%
Ypsilanti PD	52	55	3	5.8%
Total	934	927	-7	-0.7%

	<i>December</i>			
	2009	2010	Amount	Change
Ann Arbor PD	230	247	17	7.4%
Chelsea PD	8	12	4	50.0%
EMU DPS	2	3	1	50.0%
Michigan State Police	215	258	43	20.0%
Milan PD	8	6	-2	-25.0%
Northfield Twp PD	23	23	0	0.0%
Pittsfield Twp PD	88	158	70	79.5%
Saline PD	12	17	5	41.7%
U of M DPS	16	15	-1	-6.3%
Washtenaw Co. Sheriff	302	394	92	30.5%
Ypsilanti PD	54	63	9	16.7%
Total	958	1,196	238	24.8%

Source:
Michigan State Police

CRASH TYPES

When reporting a crash, the responding officer indicates the type of crash of the first impact. The Michigan crash report uses ten crash types:

Single Motor Vehicle Crash: involves only one vehicle and are not caused by another vehicle. Crashes include collisions with pedestrians, bicycles, animals, trains, and fixed objects or roll-overs.

Head On Crash: when two vehicles coming from opposite directions collide while facing each other.

Head On Crash- Left Turn: when two vehicles coming from opposite directions collide while facing each other and when one or both vehicles were attempting to turn left.

Angle Crash: when one vehicle hits the side of the other vehicle at a perpendicular angle (approximately 90 degrees). These crashes may be strong enough to stop the forward motion of the vehicles.

Rear End Crash: when one vehicle hits the rear of another vehicle while going the same direction usually when stopping or accelerating.

Rear End Crash- Left Turn: when one vehicle hits the side or rear of another vehicle while going the same direction and when the vehicle that was hit was attempting to turn left usually when stopping or accelerating.

Rear End Crash- Right Turn: when one vehicle hits the side or rear of another vehicle while going the same direction and when the vehicle that was hit was attempting to turn right. Usually when stopping or accelerating

Sideswipe Crash- Same: when a vehicle hits the side of another vehicle, makes contact at a glancing angle, and when the two vehicles are travelling in the same direction. This type of crash is not strong enough of an impact to stop the forward motion of the vehicles.

Sideswipe Crash- Opposite: when a vehicle hits the side of another vehicle, makes contact at a glancing angle, and when two vehicles are travelling in opposite directions. This type of crash is not strong enough of an impact to stop the forward motion of the vehicles.

Other/Unknown Crash: Crash does not fit into any of the above categories (i.e. when a vehicle backs into another vehicle) or officer cannot indicate the type of crash.

Not Reported: Officer did not indicate the type of crash.

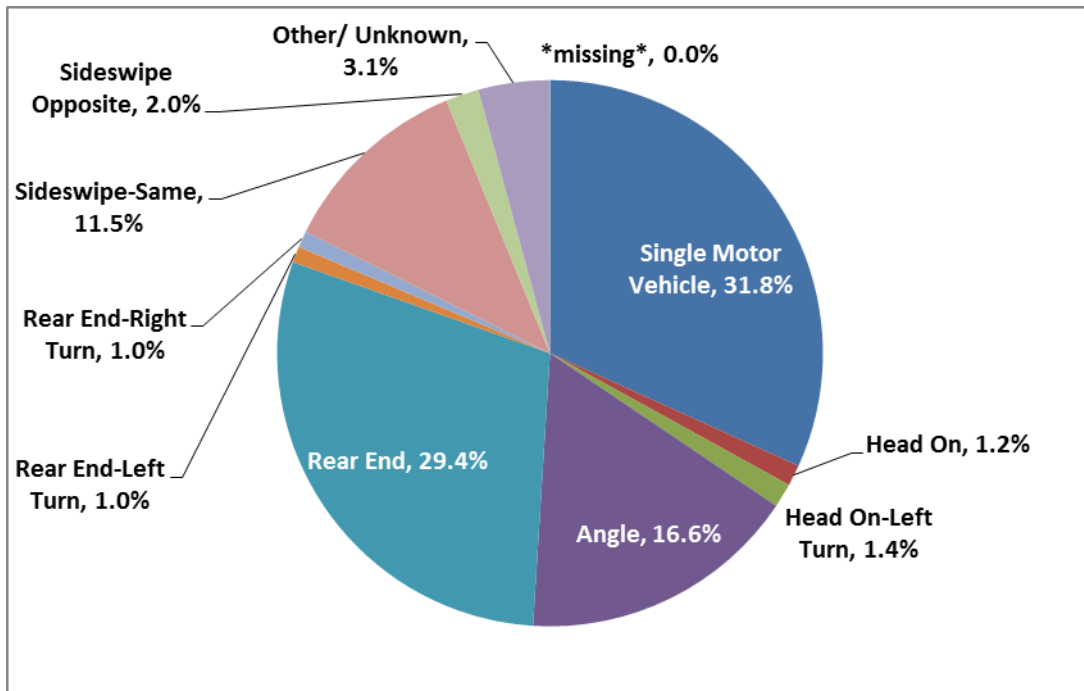
Table 4 lists the crash types as well as the total and percent of Washtenaw County crashes in 2010. Chart 2 shows types of crashes as a percentage of total crashes. Table 5 lists crash types by municipality. Single Motor Vehicle crashes, the most common crash type, made up 35 percent of the Washtenaw County crashes and Rear End crashes were the next most common at 28.1% of all crashes.

Table 4: Washtenaw County Crash Type by Percent of Crashes

Crash Type	Percent	Total
Single Motor Vehicle	31.8%	3,168
Head On	1.2%	124
Head On-Left Turn	1.4%	142
Angle	16.6%	1,651
Rear End	29.4%	2,933
Rear End-Left turn	1.0%	95
Rear End-Right turn	1.0%	97
Sideswipe-Same	11.5%	1,142
Sideswipe-Opposite	2.0%	197
Other/Unknown	4.2%	418
Missing	0.0%	4
Total	100.0%	9,971

Source: Michigan State Police

Chart 2: Washtenaw County Crashes by Type



Source: Michigan State Police

Table 5: Crash Types by Municipality

	Single Motor Vehicle	Head On	Head On-Left Turn	Angle	Rear End	Rear End-Left Turn	Rear End-Right Turn	Sideswipe-Same	Sideswipe-Opposite	Other/Unknown	Missing	Total
Cities and Villages												
Ann Arbor	441	22	40	622	1,034	27	26	434	50	99	1	2,796
Barton Hills	3	0	0	0	0	0	0	0	0	0	0	3
Chelsea	36	1	2	23	34	3	2	7	1	20	0	129
Dexter	11	0	0	16	23	0	2	8	3	5	0	68
Manchester	12	0	0	4	12	0	0	4	3	5	0	40
Milan	24	0	3	7	13	2	1	14	3	16	0	83
Saline	39	1	10	35	79	2	1	20	5	8	0	200
Ypsilanti	99	16	13	198	256	13	7	149	11	38	0	800
Total	665	40	68	905	1,451	47	39	636	76	191	1	4,119
Townships												
Ann Arbor	203	1	3	32	190	6	9	88	6	20	1	559
Augusta	48	2	0	17	12	4	0	5	3	1	0	92
Bridgewater	58	4	0	4	4	1	0	0	2	3	0	76
Dexter	90	3	3	4	11	2	0	2	3	4	0	122
Freedom	30	1	0	5	1	0	0	0	1	1	0	39
Lima	108	2	0	9	27	0	1	16	0	6	0	169
Lodi	82	1	0	14	17	1	1	4	2	5	0	127
Lyndon	78	3	0	4	1	0	1	2	0	0	0	89
Manchester	53	1	0	4	0	0	1	1	1	1	0	62
Northfield	166	1	2	19	88	0	2	17	6	17	0	318
Pittsfield	288	18	27	201	514	7	7	136	27	49	0	1,274
Salem	105	2	2	20	18	1	2	6	3	1	0	160
Saline	46	0	0	6	1	1	0	1	2	2	0	59
Scio	293	8	4	70	108	6	11	47	10	22	1	580
Sharon	42	0	1	6	3	0	0	0	3	2	0	57
Superior	156	7	3	34	63	3	2	25	9	11	0	313
Sylvan	165	2	1	13	22	0	0	12	2	3	0	220
Webster	110	1	2	10	9	1	0	3	3	7	0	146
York	130	3	4	23	25	0	4	13	1	5	0	208
Ypsilanti	252	24	22	251	368	15	17	128	37	67	1	1,182
Total	2,503	84	74	746	1,482	48	58	506	121	227	3	5,852
Washtenaw County	3,168	124	142	1,651	2,933	95	97	1,142	197	418	4	9,971

Source: MichiganTrafficCrashFacts.org

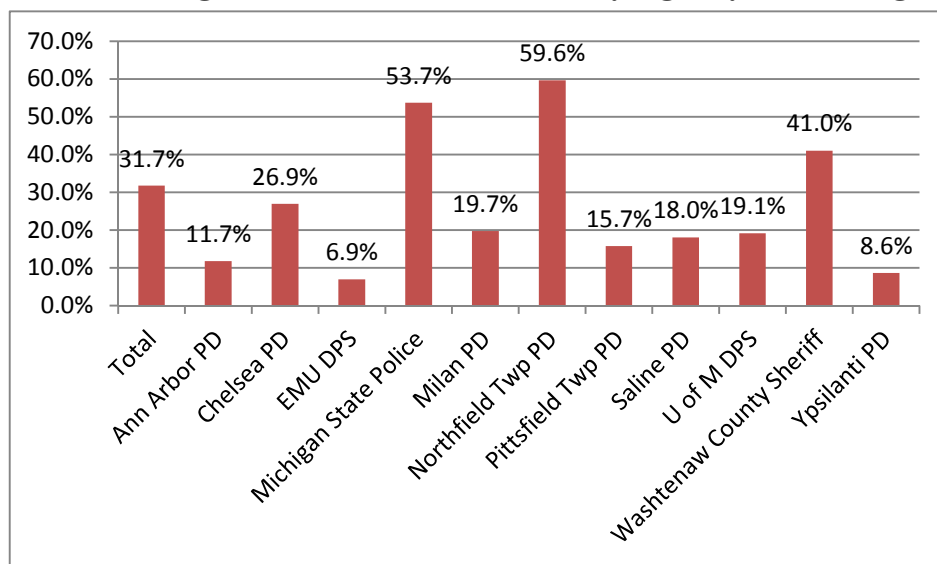
SINGLE MOTOR VEHICLE CRASHES

The Michigan State Police and other reporting agencies define a single motor vehicle crash as involving only one vehicle and not caused by another vehicle. In a single motor vehicle crash, the vehicle typically leaves the road or hits a pedestrian, bicyclist, or fixed object such as a tree, wall, or other object. Slightly less than one third of the crashes in Washtenaw County, 31.7%, were single motor vehicle crashes, making it the most common occurring crash type.

Single motor vehicle crashes occur more frequently in rural areas. Urbanized areas generally have much lower percentages of single vehicle crashes. The variation between rural and urban areas for single vehicle crashes spans from 59.6% of all crashes reported by the Northfield Township Police Department to only 6.9% reported by the Eastern Michigan University Department of Public Safety.

The Michigan State Police, which also covers largely rural areas, coded the second highest at 53.7% of their total crashes as single vehicle. The Washtenaw County Sheriff's Department had the third highest percentage at 41.0%. Chart 3 shows the percentage of single motor vehicle crashes submitted by each agency.

Chart 3: Single Motor Vehicle Crashes by Agency, Percentages



Source: Michigan State Police

REAR END CRASHES

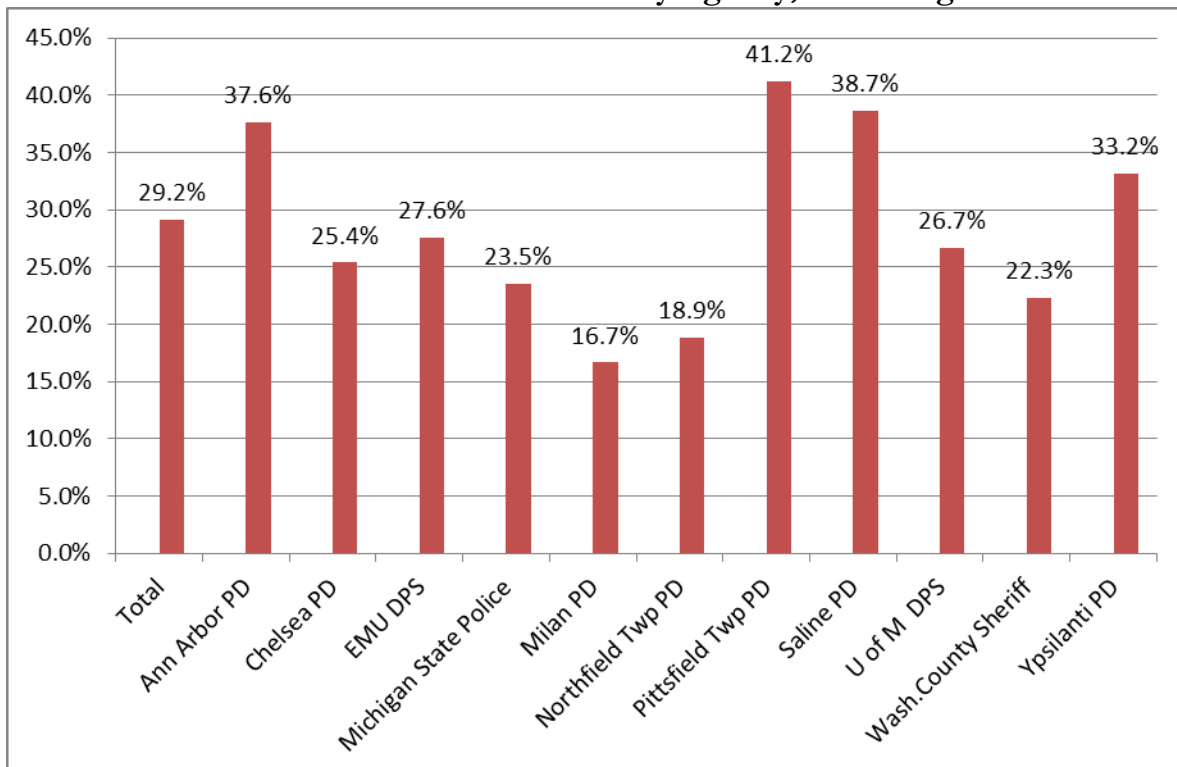
A rear end crash occurs when one vehicle hits the rear of another vehicle while stopping or accelerating. The State of Michigan differentiates between rear end crashes, rear end crashes during a left-hand turn, and rear end crashes during a right-hand turn. This report combines these crashes in the data below. Chart 4 shows the percentage of rear end crashes by agency.

Agencies that cover primarily urban areas report a higher percentage of rear-end crashes; likely a result of the higher number of traffic signals, stop signs, business driveways, and higher levels of congestion. The data shows lower percentages of rear-end crashes occurring in rural areas where there is less stopping and congestion. However, the variation in rear-end crashes between rural and urban areas is much lower than for single vehicle crashes—ranging from 16.7% from the Milan Police Department to 41.2% from the Pittsfield Township Police Department.

The Pittsfield Township Police Department reported the highest percentages of rear-end crashes (41.2%), followed by the Saline (38.7%), and Ann Arbor (37.6%) police departments.

The Milan Police Department had the lowest percentage of rear-end crashes at 16.7%. The Northfield Township Police Department had the second lowest percentage of rear-end collisions at 18.9% and serves mostly rural areas.

Chart 4: Rear-End Crashes by Agency, Percentages



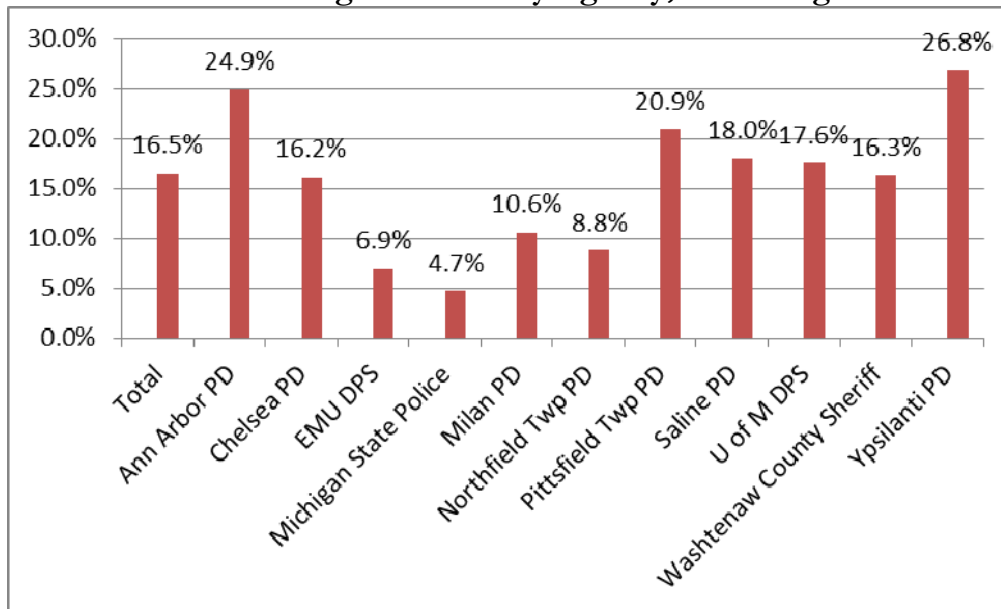
Source: Michigan State Police

ANGLE CRASHES

An angle crash occurs when the intended direction of travel between two drivers is perpendicular and there is a side impact of approximately 90 degrees. Angle crashes are often the most severe multi-vehicle crash in injuries and property damage. Of the 10,023 crashes collected by Washtenaw County police agencies, 1,658 (16.5%) were angle crashes. Chart 5 shows the percent of angle crashes of each agency's total crashes.

Similar to rear-end crashes; urban areas generally experience a higher percentage of angle crashes than the rural areas. The Ypsilanti Police Department and the Ann Arbor Police Department reported the highest percentages of angle crashes at 26.8% and 24.9% respectively, whereas the next highest: Pittsfield, Saline and University of Michigan reported 20.9%, 18.0%, and 17.6%. Rural jurisdictions reported relatively few angle crashes.

Chart 5: Angle Crashes by Agency, Percentages



Source: Michigan State Police

INJURY SEVERITY

The Michigan crash reports categorize injury crashes into K- a fatal crash; A- an incapacitating injury; B- a non-incapacitating injury; C- possible injury (no visible injury, but complaint of pain or momentary unconsciousness) and O- no injury. Washtenaw County injury crashes account for just under twenty percent of total crashes.

It is important to note that Michigan law enforcement officers' code injury severity based on the most severe injury of anyone in the crash. For instance, if a crash includes a fatality as well as other injuries, the police agencies code the crash as a fatality. Additionally, the police agencies code a single fatal crash regardless of the number of persons killed.

In Washtenaw County, 80.7% of reported crashes involved property damage without injuries. Agencies reported 1,921 crashes involving injury or possible injury, 19.3% of all crashes. Fatal crashes represented less than one-half percent (0.2%) of total crashes at 20 fatal crashes and incapacitating crashes representing 1.4% (142). Table 6 displays the number and percent of Washtenaw County crashes by injury severity.

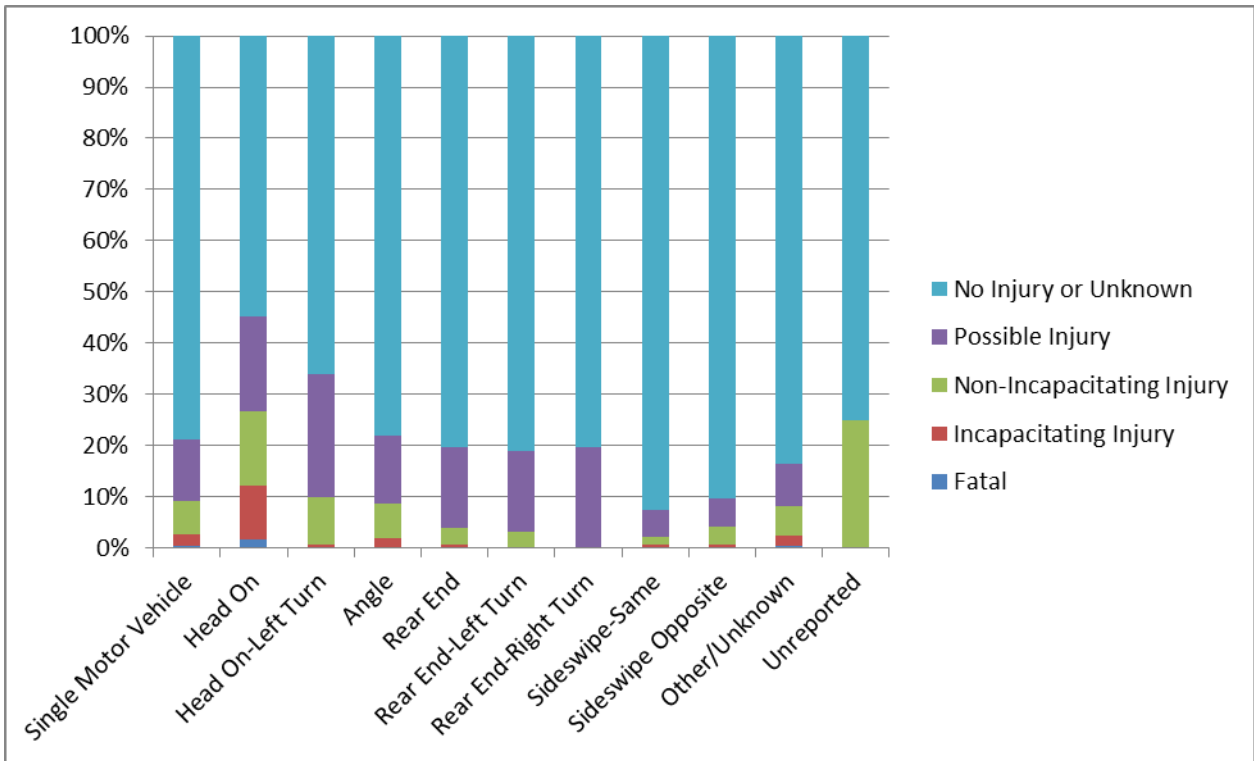
Table 6: Washtenaw County Crashes by Injury Severity

Injury Severity	Total	Percent
Fatal Injury	20	0.2%
Incapacitating Injury	142	1.4%
Non-Incapacitating Injury	499	5.0%
Possible Injury	1,260	12.6%
No Injury or Unknown	8,050	80.7%
Total Injury Crashes	1,921	19.3 %
Total Crashes	9,971	100.0 %

Source: MichiganTrafficCrashFacts.org

WATS also examined crash type by injury. Chart 6 shows the injury severity breakdown of the 9,971 crashes based on crash type in 2010. Head-on and head-on left-turn crashes were the most likely crashes to result in injury. Of the Washtenaw County head-on crashes, officers reported 39.1% as possible, non-incapacitating, incapacitating, or fatal injuries. Fatalities occurred in two head-on or head-on left-turn crashes. Angle crashes had a 21.9% injury frequency including three fatal crashes. Finally, 19.6% of rear-end crashes (two fatal) and 21.2% of single motor vehicle crashes (ten fatal) resulted in injury or death.

Chart 6: Crash Type by Injury Severity of Crash

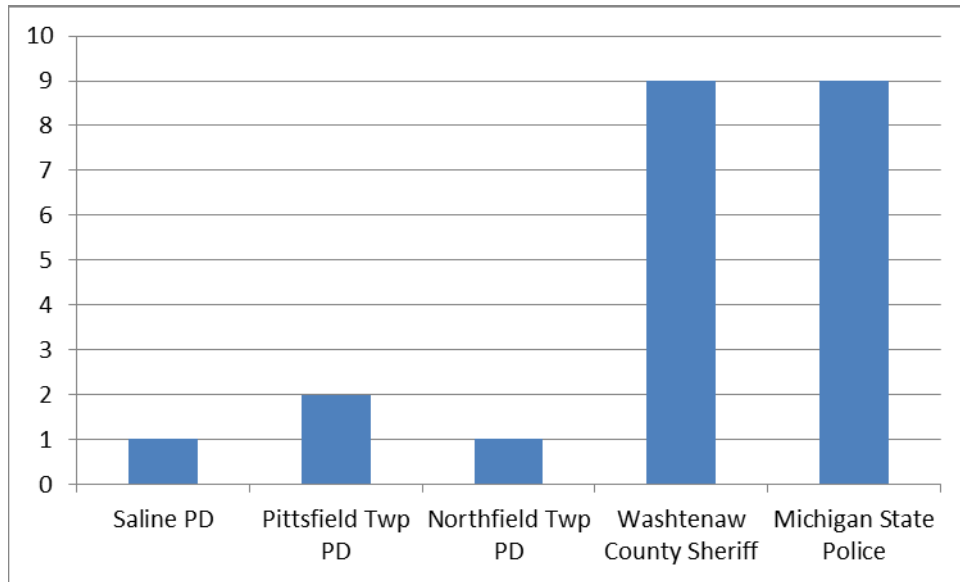


Source: Michigan State Police

FATAL CRASHES

In 2010, 20 fatal crashes occurred in Washtenaw County and 22 fatal crashes responded to by Washtenaw County police agencies. The 20 fatal crashes included three pedestrian crashes. The Washtenaw County Sheriff and the Michigan State Police reported the highest number of fatal crashes with nine each. Of the 20 total fatal crashes, 10 were single motor vehicle crashes, two were head-on collisions, three were angle, two were rear end, one was a sideswipe, and two were unknown or not reported. Only five of the eleven Washtenaw County law enforcement agencies reported at least one fatal crash. Chart 7 displays fatalities by reporting agency. Table 7 lists injuries by municipality.

Chart 7: Fatal Crashes by Agency



Source: Michigan State Police

Table 7: Injuries (or Injury Type) by Municipality

	Fatal (K)	Incap. (A)	Non- Incap. (B)	Possible (C)	No Injury	Total
Cities and Villages						
Ann Arbor	0	36	136	381	2,243	2,796
Barton Hills	0	0	1	0	2	3
Chelsea	0	2	8	18	101	129
Dexter	0	0	2	10	56	68
Manchester	0	1	0	1	38	40
Milan	0	0	5	10	68	83
Saline	1	1	12	24	162	200
Ypsilanti	0	8	35	93	664	800
Total	1	48	199	537	3,334	4,119
Townships						
Ann Arbor	0	5	24	70	460	559
Augusta	0	5	6	19	62	92
Bridgewater	1	6	4	11	54	76
Dexter	2	5	13	11	91	122
Freedom	0	1	1	9	28	39
Lima	2	6	10	15	136	169
Lodi	0	1	8	8	110	127
Lyndon	0	1	5	10	73	89
Manchester	0	3	2	8	49	62
Northfield	0	4	18	48	248	318
Pittsfield	4	17	53	139	1,061	1,274
Salem	2	1	11	18	128	160
Saline	1	1	3	8	46	59
Scio	1	6	25	64	484	580
Sharon	0	1	2	5	49	57
Superior	3	4	20	35	251	313
Sylvan	0	6	12	25	177	220
Webster	0	2	12	11	121	146
York	0	6	12	17	173	208
Ypsilanti	3	13	59	192	915	1,182
Total	19	94	300	723	4,716	5,852
Washtenaw County	20	142	499	1,260	8,050	9,971

Source: www.MichiganTrafficCrashFacts.org

ALCOHOL RELATED CRASHES

Police officers indicate if alcohol was a factor for each driver involved in a crash. In 2003, the State of Michigan revised its drunken driving laws from Driving Under the Influence of Liquor (DUIL) to the new violation of Operating While Intoxicated (OWI). With the name change there was a Blood Alcohol Concentration (BAC) reduction from 0.10 to 0.08. The new law includes a “zero-tolerance” policy for those under the age of 21. This means that a BAC level at or above 0.02 is illegal for those under 21 years of age. Commercial operators are in violation of the OWI law with a BAC of 0.04.

Table 8 shows the number of crashes involving alcohol. The alcohol use data shows that 3.1% of drivers involved in Washtenaw County crashes were above the OWI standard of .08 BAC or .04 BAC if operating a commercial vehicle.

The data in Table 9 reveals the injury impact of alcohol use while driving. In crashes with a fatality, 25.0% involved alcohol. For crashes where injuries occurred, 8.1% involved alcohol. Injury severity increases significantly when alcohol is a factor.

Table 8: Crashes Involving Alcohol

Alcohol Use	Driver Condition	Percent
Sober	9,659	96.9 %
Intoxicated (BAC > 0.08)	312	3.1 %
Total Crashes	9,971	100.0 %

Source: www.MichiganTrafficCrashFacts.org

Table 9: Crashes Involving Alcohol by Injury Severity

Injury Severity	Sober	Alcohol Use	Percent Alcohol Use
Fatal Injury	15	5	25.0 %
Incapacitating Injury	114	28	19.7 %
Non-Incapacitating Injury	441	58	11.6 %
Possible Injury	1,196	64	5.1 %
No Injury	7,893	157	2.0 %
Total Injury Crashes	1,766	155	8.1 %
Totals	9,659	312	3.1 %

Source: www.MichiganTrafficCrashFacts.org

PEDESTRIAN AND BICYCLE RELATED CRASHES

As the use of non-motorized transportation increases throughout the county, it is important to document bicycle and pedestrian crashes. Below Tables 10 and 11 provide bicycle and pedestrian crashes by injury respectively. Table 12 identifies whether a non-motorized facility was available where the crash occurred. Table 13 identifies vehicular crashes involving a bicycle or pedestrian by municipality. Both bicycle and pedestrian crashes occurred more frequently in more urban communities.

The data show that most reported bicycle and pedestrian crashes resulted in injury. Of 105 crashes involving bicycles, 90 resulted in injury (85.7%), however, none were fatal. Of 80 crashes involving pedestrians, 74 resulted in injury (92.5%), with three fatalities. In addition, most pedestrian crashes happened where a pedestrian facility was available while most bike crashes occurred where bike facilities were unavailable. A non-motorized facility, as defined by the WATS Non-motorized Plan, in the rural area is an ASHTO compliant paved shoulder that can be both used as both bike and pedestrian facilities. In the urban area sidewalks or a shared use path are pedestrian facilities. A bike facility in the urban area requires an ASHTO compliant on road or shared use path.

Table 10: Bicycle Crash Injuries

	Bicyclist Injuries	% of Bicycle Crashes
Fatal	0	0.0%
Incapacitating injury	9	8.6%
Non incapacitating injury	35	33.3%
Possible injury	46	43.8%
No injury	15	14.3%
Total Bicyclist Injury Crashes	90	85.7%
Total 2010 Bicycle Crashes	105	100.0%

Source: Michigan State Police

Table 11: Pedestrian Crash Injuries

	Pedestrian Injuries	% of Pedestrian Crashes
Fatal	3	3.8%
Incapacitating injury	16	20.0%
Non incapacitating injury	28	35.0%
Possible injury	27	33.8%
No injury	6	7.5%
Total Pedestrian Injury Crashes	74	92.5%
Total 2010 Pedestrian Crashes	80	100.0%

Source: Michigan State Police

Table 12: Non-Motorized Facilities Availability

	Bike Crashes	Bike Percent	Pedestrian Crashes	Pedestrian Percent
Facility Available	19	18.1%	60	75%
No Facility	86	81.9%	20	25%
Total Crashes	105	100%	80	100%

Source: WATS and Roadsoft GIS

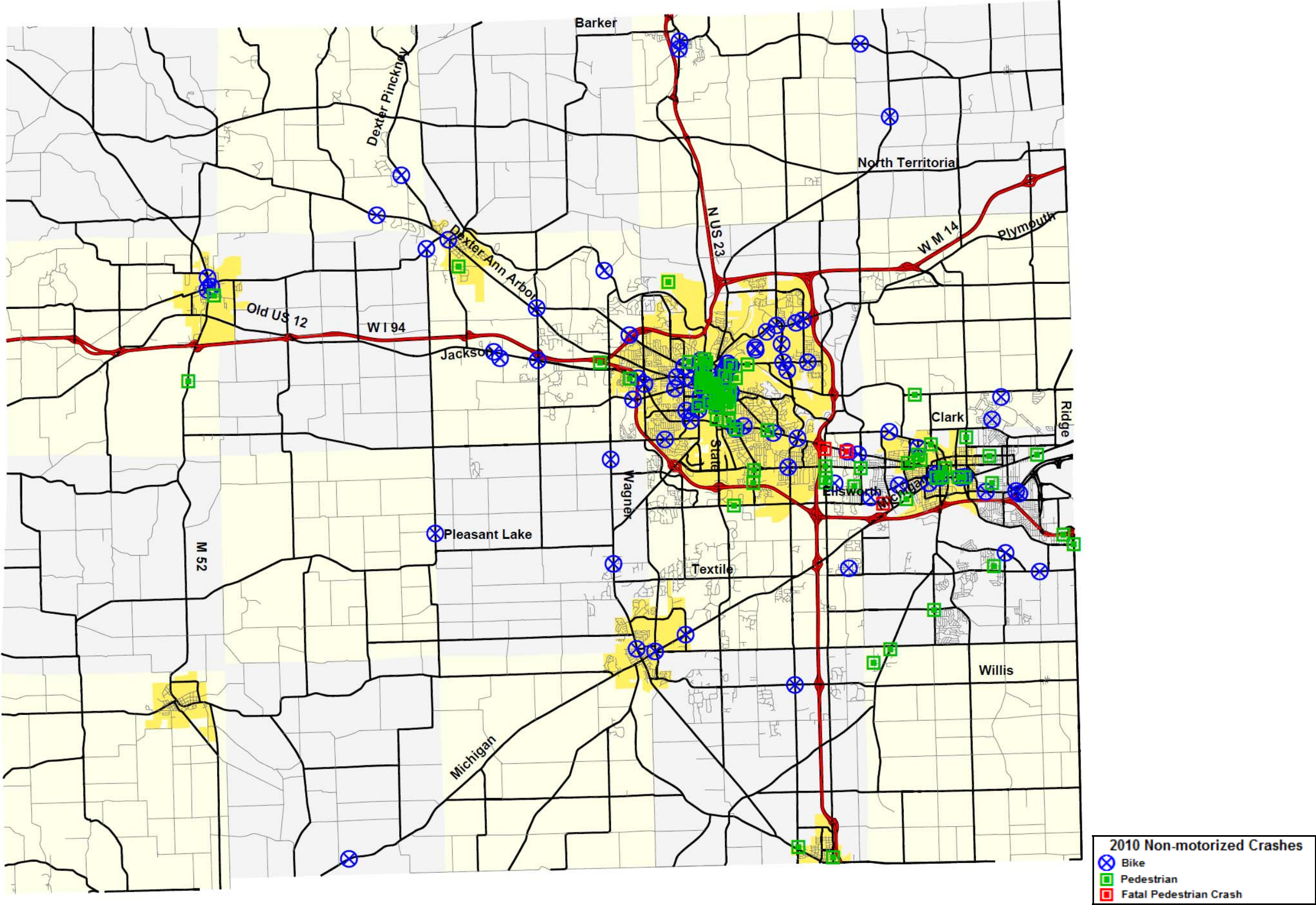
Table 13: Crashes Involving Bicycles or Pedestrians by Municipality

	Bicycle	Pedestrian	Total
Cities and Villages			
Ann Arbor	59	45	104
Barton Hills	0	1	1
Chelsea	3	1	4
Dexter	1	1	2
Manchester	0	0	0
Milan	0	2	2
Saline	3	0	3
Ypsilanti	9	9	18
Total	75	59	134
Townships			
Ann Arbor	0	0	0
Augusta	0	2	2
Bridgewater	1	0	1
Dexter	2	0	2
Freedom	0	0	0
Lima	0	0	0
Lodi	3	0	3
Lyndon	0	0	0
Manchester	0	0	0
Northfield	2	0	2
Pittsfield	4	6	10
Salem	2	0	2
Saline	0	0	0
Scio	6	1	7
Sharon	0	0	0
Superior	2	1	3
Sylvan	0	1	1
Webster	0	0	0
York	1	0	1
Ypsilanti	7	10	17
Total	30	21	51
Washtenaw County	105	80	185

Source: MichiganTrafficCrashFacts.org

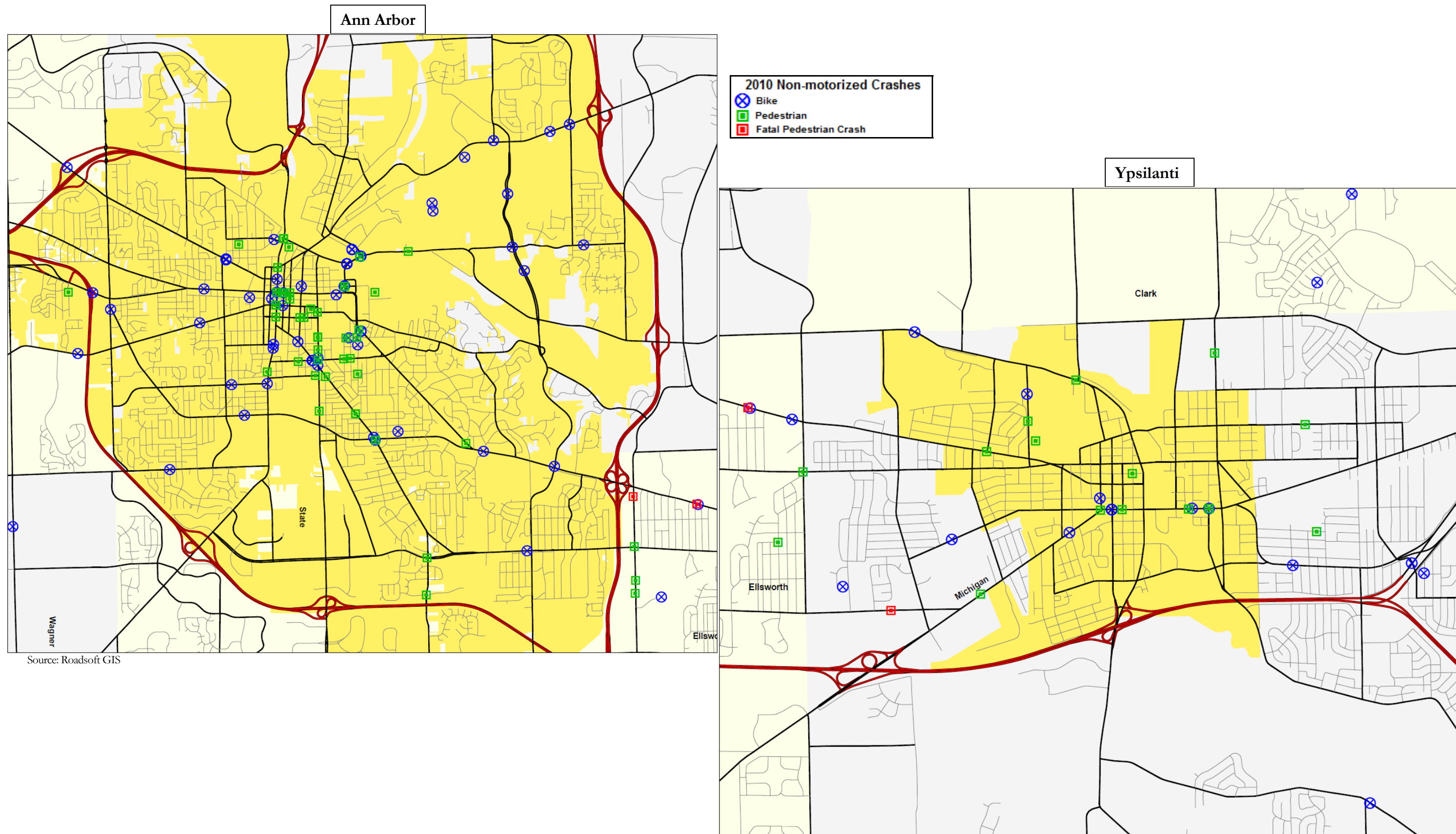
On the next page, Map 1 locates the 2010 bicycle and pedestrian crashes in Washtenaw County. The map illustrates that most crashes involving bicycles and pedestrians take place within the urban area. Map 2 on page 24 provides additional detail in the Cities of Ann Arbor and Ypsilanti.

Map 1: Bicycle and Pedestrian Crash Locations



Source: Roadsoft GIS

Map 2: Bicycle and Pedestrian Crash Locations Ann Arbor and Ypsilanti



DEER RELATED CRASHES

Deer collisions make up a significant number of Washtenaw County’s crashes and usually involve a single vehicle. Agencies recorded 1,176 crashes that involved deer or 11.8% of all crashes in the county in 2010. Of the deer crashes 1,155 were single motor vehicle crashes, comprising 36.6% of total single vehicle crashes. See Table 14 below.

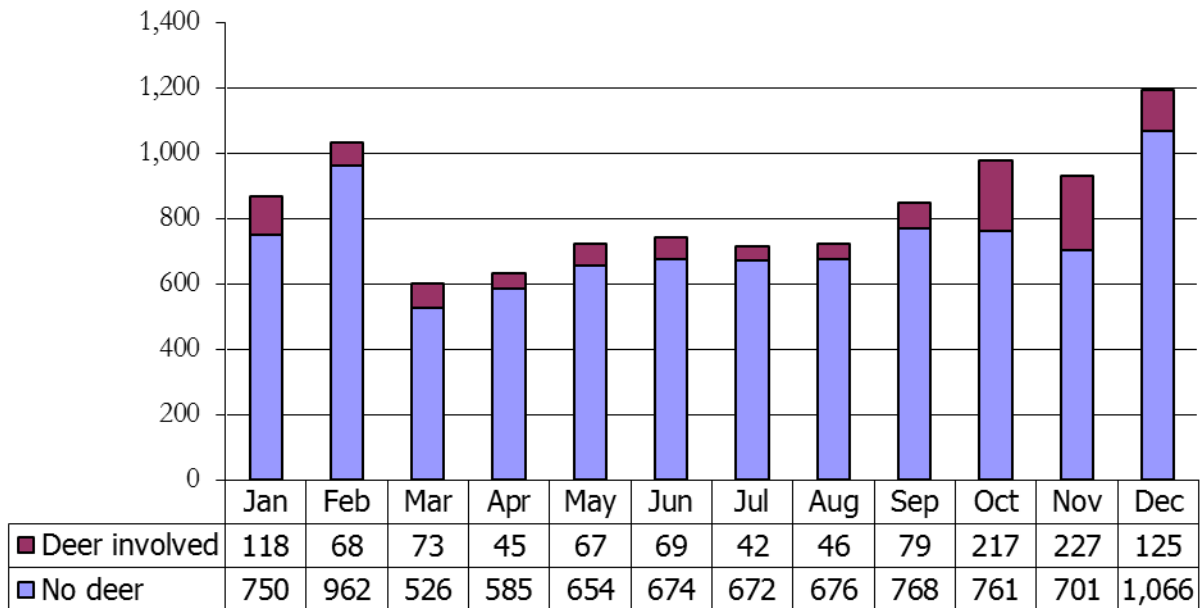
The distribution of deer crashes does not occur evenly throughout the year. The frequency of deer crashes rises significantly in the months of October and November. Nearly 38% of annual deer crashes occur during these two months. Chart 8 details deer crashes by month.

Table 14: Crashes Involving Deer, Total

		% Deer Involvement
Crashes involving Deer	1,176	
Total Single Vehicle Crashes	3,153	36.6 %
Total Crashes	9,971	11.8 %

Source: MichiganTrafficCrashFacts.org

Chart 8: Crashes Involving Deer by Month



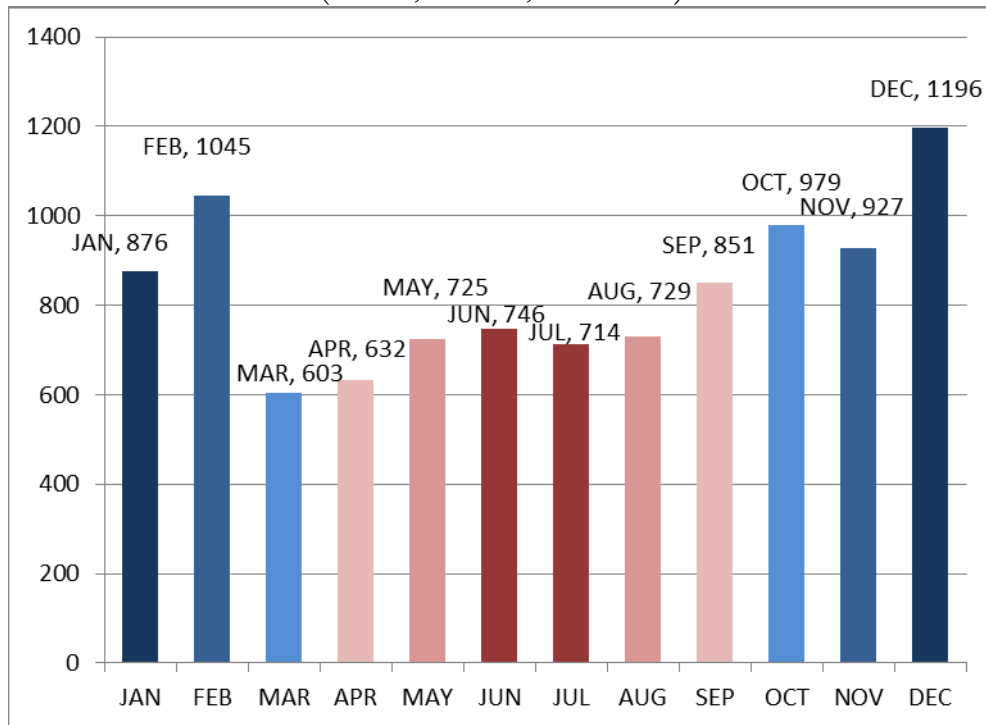
Source: MichiganTrafficCrashFacts.org

WEATHER RELATED CRASHES

Traffic crashes are not evenly distributed throughout the year. Michigan and other states that experience snow, sleet and ice tend to have a higher number of crashes during the winter months and fewer crashes during the summer months. As expected in 2010, the number of crashes in October, November, December, January and February were substantially higher, making the difference between the winter and summer months more distinct.

Chart 9 shows the seasonal variation in 2010.

Chart 9: Crashes by Month
(Month, Crashes, % of Total)



Source: Michigan State Police

VEHICLE TYPE

Many vehicle types are involved in crashes during the year. Multiple vehicles may be involved in one crash. Passenger Cars represent the majority of vehicles involved in crashes at 79.5% of all vehicles. Trucks and Buses represent 2.6% of the vehicles involved in 2010 crashes. The remaining 18.9% of vehicles include mopeds, off-road vehicles, and motorcycles. Vehicles are listed as not reported when the second vehicle in a crash is unknown and likely a hit and run offender.

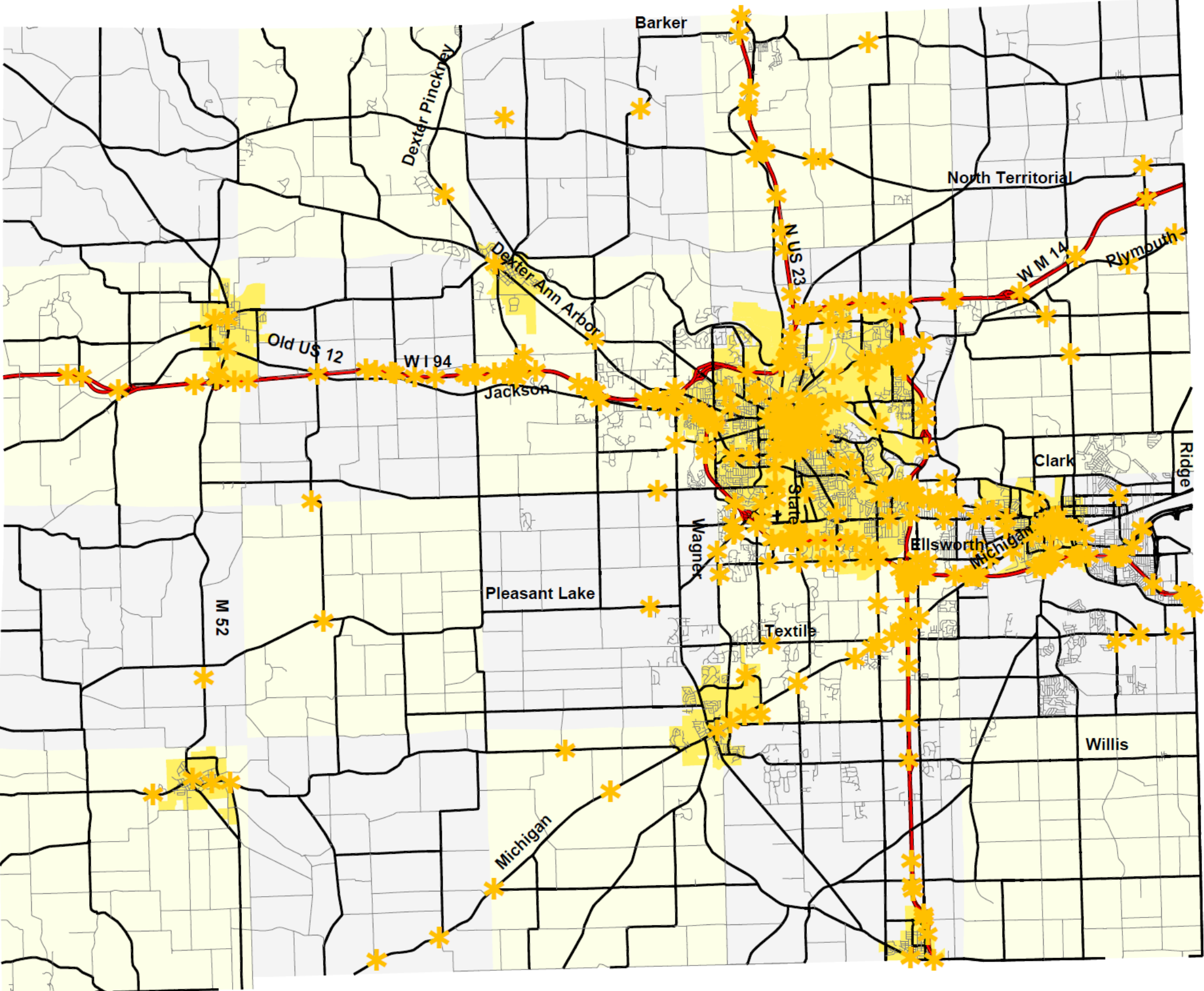
Table 15 shows the number of vehicles involved in crashes by vehicle type in 2010 by municipality. Map 3 shows the locations of the Truck and Bus crashes for 2010. Note that Truck and Bus crashes are primarily on freeways and other state roads.

Table 15: Vehicle Type by Municipality

	Passenger Car	Van, motor home	Pickup truck	Small truck	Cycle	Mo-ped	ORV	Other	Truck /Bus	Not Report-ed	Total
Cities and Villages											
Ann Arbor	4,568	267	304	30	23	2	0	0	0	15	156
Barton Hills	2	0	1	0	0	0	0	0	0	0	0
Chelsea	173	7	30	4	4	0	0	0	0	2	7
Dexter	98	4	16	0	1	0	0	0	0	4	2
Manchester	49	4	12	2	0	0	0	0	0	0	2
Milan	100	6	23	1	3	0	0	0	0	0	5
Saline	286	21	29	20	4	0	0	0	0	3	5
Ypsilanti	1,266	76	104	17	10	2	0	0	0	9	34
Total	6,542	385	519	74	45	4	0	0	0	33	211
Townships											
Ann Arbor	785	56	59	16	7	0	0	0	0	2	39
Augusta	100	9	19	1	2	0	0	0	0	5	0
Bridgewater	69	4	13	0	5	0	0	0	0	2	2
Dexter	108	7	26	3	8	0	0	0	0	2	1
Freedom	30	1	13	1	1	0	0	0	0	1	2
Lima	155	12	33	10	9	2	0	0	0	1	14
Lodi	133	8	20	7	0	0	0	0	0	1	2
Lyndon	72	3	20	3	1	0	0	0	0	1	0
Manchester	44	4	13	7	1	0	0	0	0	0	2
Northfield	384	15	66	3	6	1	0	0	0	0	17
Pittsfield	1,938	108	189	20	4	2	0	0	0	2	67
Salem	167	5	33	3	2	0	0	0	0	3	2
Saline	50	3	8	2	2	0	0	0	0	1	4
Scio	665	71	93	13	2	0	0	0	0	5	33
Sharon	48	4	13	4	2	0	0	0	0	0	1
Superior	401	26	31	7	3	0	0	0	0	2	6
Sylvan	217	12	25	15	2	0	0	0	0	2	6
Webster	124	16	30	4	2	0	0	0	0	2	2
York	206	16	37	14	5	0	0	0	0	4	10
Ypsilanti	1,750	125	198	42	14	0	0	0	0	13	38
Total	7,446	505	939	175	78	5	0	0	0	49	248
Washtenaw County	13,988	890	1,458	249	123	9	0	0	0	82	459

Source: Michigan State Police

Map 3: Truck and Bus Crash Locations



Source: Roadsoft GIS

CONCLUSION

WATS provides this report as a resource for Washtenaw County citizens, communities, and agencies seeking to make transportation safer. Local agencies need quality crash data to make road improvement decisions, improve users' safety, and allocate funds. For example, municipalities use this data to identify locations for improvement using federal safety funds. Some law enforcement officers use this report to select locations for monitoring and enforcement. Last, but not least, citizens and legislators use information on driving under the influence, deer-related crashes, or other factors to call for changes in policy.

WATS is an advocate for more accurate crash data. There is a statewide effort to make crash reporting electronic rather than hand written. All but one of Washtenaw County's agencies are reporting crashes electronically.

This report offers only aggregate data themed by agency, community, crash type, or other factors, but users can request more detailed information. As mentioned in the Data Collection section, page 4, WATS used two key resources:

1. For information on specific crash factors or locations, refer to the Crash Facts website at <http://www.michigantrafficcrashfacts.org>. Use the Data Query tool for maps and crash reports. This website has crash information for every municipality and county in Michigan.
2. SEMCOG maintains a searchable database of crashes in Southeastern Michigan with location and factor data at <http://www.semcog.org/Data/Apps/crash.cfm>.

For the most up-to-date aggregate crash information, WATS produces monthly reports published on the agency website:

- For 2009: <http://www.miwats.org/WATS/leftside/transdata/crashes/2009/crash09.html>
- For 2010: <http://www.miwats.org/WATS/leftside/transdata/crashes/2010/crash10.html>

WATS provides assistance obtaining crash data upon request. Please contact Eric Bomberly, Transportation Planner, at bomberly@miwats.org or (734) 994-3127. Users may send written requests to the WATS office at 705 N. Zeeb, Ann Arbor, MI 48103 or wats@miwats.org.

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