

VEHICLE TYPE AND CRASH INVOLVEMENT

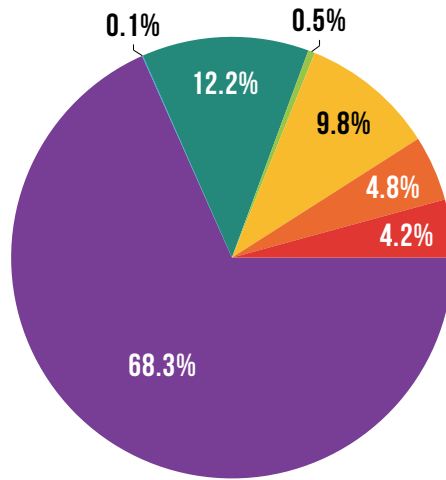
VEHICLE TYPE	MOTOR VEHICLES		FATAL CRASH		INJURY CRASH	PROPERTY DAMAGE ONLY	FATALITY IN VEHICLE		INJURY	NO INJURY
	Number of Vehicles	% of Total	Number	% of Total			Number	% of Total		
Passenger Car, SUV, Van	323,048	79.9	1,111	68.3	64,666	257,271	538	65.9	41,507	281,003
Motor Home	937	0.2	1	0.1	162	774	0	0.0	90	847
Pickup Truck	49,439	12.2	199	12.2	8,305	40,935	79	9.7	4,491	44,869
Small Truck under 10,000 lbs. GVWR	1,734	0.4	8	0.5	301	1,425	3	0.4	140	1,591
Motorcycle	3,092	0.8	160	9.8	2,285	647	148	18.1	2,243	701
Moped / Goped	461	0.1	17	1.0	360	84	16	2.0	354	91
Go-cart / Golf Cart	52	0.0	0	0.0	39	13	0	0.0	36	16
Snowmobile	99	0.0	2	0.1	63	34	2	0.2	55	42
Off-Road Vehicle - ORV / All-Terrain Vehicle - ATV	459	0.1	16	1.0	334	109	15	1.8	320	124
Other	1,521	0.4	13	0.8	268	1,240	8	1.0	138	1,375
Unknown	11,577	2.9	21	1.3	1,285	10,271	0	0.0	8	11,569
CDL Truck/Bus (breakdown below)	11,867	2.9	78	4.8	2,001	9,788	7	0.9	549	11,311
Total Number of Vehicles	404,286	100.0	1,626	100.0	80,069	322,591	816	100.0	49,931	353,539

Note: Buses cannot be broken out of CDL Truck/Bus

CDL TRUCK/BUS SUB-CATEGORY TYPE	MOTOR VEHICLES		FATAL CRASH		INJURY CRASH	PROPERTY DAMAGE ONLY	FATALITY IN VEHICLE		INJURY	NO INJURY
	Number of Vehicles	% of Total	Number	% of Total			Number	% of Total		
10,000 lbs. or Less	114	1.0	0	0.0	7	107	0	0.0	3	111
10,001 - 26,000 lbs.	4,256	35.9	17	21.8	633	3,606	1	14.3	192	4,063
Greater than 26,000 lbs.	7,312	61.6	61	78.2	1,355	5,896	6	85.7	354	6,952
Unknown Truck	185	1.6	0	0.0	6	179	0	0.0	0	185
Total Number of Vehicles	11,867	100.0	78	100.0	2,001	9,788	7	100.0	549	11,311

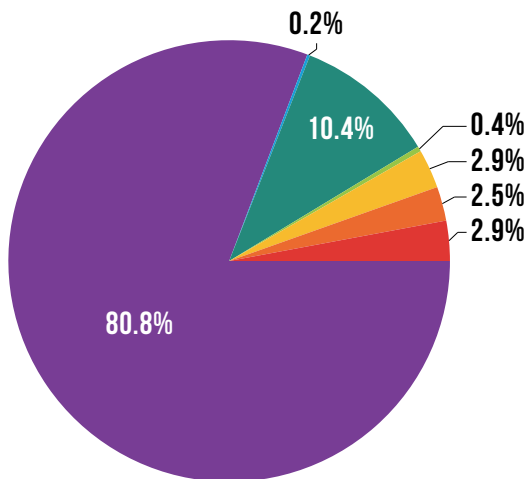
VEHICLE TYPES IN CRASHES BY CRASH SEVERITY

■ PASSENGER CAR, SUV, VAN
 ■ MOTOR HOME
 ■ PICKUP TRUCK
 ■ TRUCK UNDER 10,000 LBS.
 ■ MOTORCYCLE
 ■ CDL TRUCK/BUS
 ■ OTHER

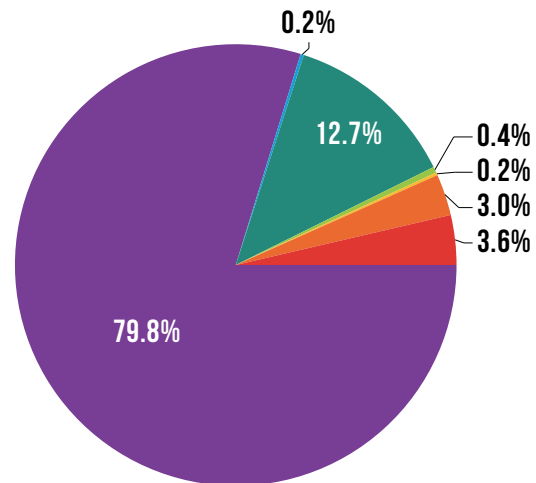


FATAL

The chart shows that 81.1 percent of vehicles involved in fatal crashes are passenger vehicles (passenger cars, SUVs, vans, motor homes, pickup trucks, or trucks under 10,000 lbs.). Motorcycles make up 9.8 percent of fatal crash involvements.



INJURY



PROPERTY DAMAGE ONLY

Passenger vehicles (passenger cars, SUVs, vans, motor homes, pickup trucks, or trucks under 10,000 lbs.) make up an even larger share of vehicles in injury crashes (91.8%) and property damage only (PDO) crashes (93.1%) than they do of fatal crashes.

Note: "Other" consists of moped, go-cart, snowmobile, off-road vehicle, other, and unknown.

ACTION PRIOR TO CRASH

DRIVER ACTION	VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number	% of Total		A	B	C	
Going straight ahead	234,577	58.0	1,175	4,989	14,975	28,548	184,890
Turning left	27,714	6.9	107	665	2,402	4,302	20,238
Turning right	11,949	3.0	20	108	553	1,101	10,167
Stopped on roadway	32,552	8.1	50	296	1,751	4,990	25,465
In prior crash	236	0.1	3	15	24	40	154
Changing lanes	11,577	2.9	10	86	413	889	10,179
Backing	8,217	2.0	2	30	76	216	7,893
Slowing/stopping on roadway	30,268	7.5	40	245	1,219	4,209	24,555
Slowing/stopping other	441	0.1	2	8	19	49	363
Starting up on roadway	6,231	1.5	11	100	354	924	4,842
Starting up other	73	0.0	0	1	4	18	50
Entering parking	264	0.1	0	3	8	21	232
Leaving parking	776	0.2	1	6	39	93	637
Entering roadway	4,099	1.0	12	75	255	578	3,179
Leaving roadway	567	0.1	9	25	60	66	407
Making U-turn	975	0.2	5	36	82	156	696
Overtaking or passing	2,630	0.7	19	88	170	237	2,116
Avoiding object	332	0.1	1	5	22	53	251
Avoiding animal	759	0.2	2	10	64	94	589
Avoiding pedestrian	79	0.0	8	7	7	11	46
Avoiding vehicle (front/back)	2,242	0.6	14	77	166	271	1,714
Avoiding vehicle (angle)	1,006	0.2	2	20	78	140	766
Driverless moving	194	0.0	4	0	5	10	175
Parked	17,342	4.3	53	190	636	1,034	15,429
Crossing at intersection	58	0.0	0	3	8	12	35
Crossing not at intersection	8	0.0	0	0	1	1	6
Getting on/off vehicle	4	0.0	0	0	2	0	2
In roadway with traffic	12	0.0	0	1	1	1	9
In roadway against traffic	15	0.0	1	1	2	1	10
Standing or lying in roadway	2	0.0	0	0	1	1	0
Pushing/working on vehicle	3	0.0	0	0	0	0	3
Other working in roadway	3	0.0	0	0	0	0	3
Playing in roadway	0	0.0	0	0	0	0	0
In roadway other reason	16	0.0	0	1	0	2	13
Not in roadway	29	0.0	0	1	4	5	19
Negotiating a curve	3,797	0.9	51	151	345	453	2,797
Other	561	0.1	3	18	50	63	427
Unknown	4,678	1.2	21	55	110	258	4,234
TOTAL	404,286	100.0	1,626	7,316	23,906	48,847	322,591

ACTION PRIOR TO CRASH (CONTINUED)

MOTORCYCLIST ACTION	MOTORCYCLES		MOTORCYCLISTS*		FATALITY	INJURY			NO INJURY
	Number of Motorcycles	% of Total	Number of Motorcyclists	% of Total		A	B	C	
Going straight ahead	2,152	69.6	2,356	69.8	124	592	742	404	437
Turning left	121	3.9	129	3.8	0	20	57	29	20
Turning right	74	2.4	79	2.3	4	14	26	16	17
Stopped on roadway	94	3.0	106	3.1	1	6	16	26	57
In prior crash	1	0.0	1	0.0	0	0	0	0	0
Changing lanes	50	1.6	54	1.6	1	13	26	5	8
Backing	0	0.0	0	0.0	0	0	0	0	0
Slowing/stopping on roadway	148	4.8	163	4.8	6	28	54	27	40
Slowing/stopping other	6	0.2	6	0.2	0	2	1	0	3
Starting up on roadway	27	0.9	29	0.9	0	2	11	2	14
Starting up other	0	0.0	0	0.0	0	0	0	0	0
Entering parking	0	0.0	0	0.0	0	0	0	0	0
Leaving parking	1	0.0	1	0.0	0	0	1	0	0
Entering roadway	18	0.6	18	0.5	1	5	2	3	7
Leaving roadway	7	0.2	7	0.2	0	2	3	0	2
Making U-turn	11	0.4	16	0.5	0	1	4	3	8
Overtaking or passing	67	2.2	71	2.1	2	27	22	4	9
Avoiding object	3	0.1	3	0.1	0	0	0	1	2
Avoiding animal	9	0.3	9	0.3	0	2	3	3	1
Avoiding pedestrian	2	0.1	3	0.1	0	1	1	1	0
Avoiding vehicle (front/back)	56	1.8	63	1.9	0	12	27	11	13
Avoiding vehicle (angle)	26	0.8	28	0.8	0	8	10	5	5
Driverless moving	1	0.0	1	0.0	0	0	0	0	1
Parked	35	1.1	35	1.0	0	1	0	2	4
Crossing at intersection	0	0.0	0	0.0	0	0	0	0	0
Crossing not at intersection	0	0.0	0	0.0	0	0	0	0	0
Getting on/off vehicle	1	0.0	1	0.0	0	0	1	0	0
In roadway with traffic	0	0.0	0	0.0	0	0	0	0	0
In roadway against traffic	0	0.0	0	0.0	0	0	0	0	0
Standing or lying in roadway	0	0.0	0	0.0	0	0	0	0	0
Pushing/working on vehicle	0	0.0	0	0.0	0	0	0	0	0
Other working in roadway	0	0.0	0	0.0	0	0	0	0	0
Playing in roadway	0	0.0	0	0.0	0	0	0	0	0
In roadway other reason	1	0.0	1	0.0	0	0	0	1	0
Not in roadway	0	0.0	0	0.0	0	0	0	0	0
Negotiating a curve	156	5.0	170	5.0	11	48	64	21	22
Other	6	0.2	6	0.2	0	2	2	0	0
Unknown	19	0.6	19	0.6	2	3	3	0	4
TOTAL	3,092	100.0	3,375	100.0	152	789	1,076	564	674

*This table includes 120 motorcyclists (drivers and passengers) with unknown injury severity

ACTION PRIOR TO CRASH (CONTINUED)

BICYCLIST ACTION	BICYCLISTS*		FATALITY	INJURY			NO INJURY
	Number of Bicyclists	% of Total		A	B	C	
Going straight ahead	750	60.7	22	85	250	224	144
Turning left	34	2.8	1	7	13	5	6
Turning right	6	0.5	0	2	2	2	0
Stopped on roadway	11	0.9	0	2	5	3	1
In prior crash	0	0.0	0	0	0	0	0
Changing lanes	2	0.2	0	1	1	0	0
Backing	0	0.0	0	0	0	0	0
Slowing/stopping on roadway	4	0.3	0	0	2	1	1
Slowing/stopping other	0	0.0	0	0	0	0	0
Starting up on roadway	13	1.1	0	2	7	2	2
Starting up other	2	0.2	0	1	1	0	0
Entering parking	0	0.0	0	0	0	0	0
Leaving parking	1	0.1	0	1	0	0	0
Entering roadway	54	4.4	2	7	28	12	5
Leaving roadway	0	0.0	0	0	0	0	0
Making U-turn	2	0.2	0	0	1	0	1
Overtaking or passing	5	0.4	0	0	2	0	1
Avoiding object	1	0.1	0	0	1	0	0
Avoiding animal	1	0.1	0	0	1	0	0
Avoiding pedestrian	0	0.0	0	0	0	0	0
Avoiding vehicle (front/back)	4	0.3	1	0	0	0	3
Avoiding vehicle (angle)	3	0.2	0	1	0	1	1
Driverless moving	1	0.1	0	0	1	0	0
Parked	0	0.0	0	0	0	0	0
Crossing at intersection	232	18.8	2	18	99	57	44
Crossing not at intersection	42	3.4	2	7	13	15	3
Getting on/off vehicle	0	0.0	0	0	0	0	0
In roadway with traffic	18	1.5	3	7	4	4	0
In roadway against traffic	9	0.7	2	0	4	3	0
Standing or lying in roadway	1	0.1	0	0	0	1	0
Pushing/working on vehicle	0	0.0	0	0	0	0	0
Other working in roadway	0	0.0	0	0	0	0	0
Playing in roadway	3	0.2	0	0	3	0	0
In roadway other reason	9	0.7	0	3	3	3	0
Not in roadway	6	0.5	2	0	1	2	1
Negotiating a curve	1	0.1	0	0	1	0	0
Other	12	1.0	0	1	2	5	4
Unknown	8	0.6	1	2	0	1	0
TOTAL	1,235	100.0	38	147	445	341	217

*Includes 47 bicyclists with unknown injury severity

ACTION PRIOR TO CRASH (CONTINUED)

PEDESTRIAN ACTION	PEDESTRIANS*		FATALITY	INJURY			NO INJURY
	Number of Pedestrians	% of Total		A	B	C	
Going straight ahead	26	1.5	0	2	10	7	6
Turning left	1	0.1	0	0	1	0	0
Turning right	0	0.0	0	0	0	0	0
Stopped on roadway	3	0.2	0	0	0	3	0
In prior crash	0	0.0	0	0	0	0	0
Changing lanes	0	0.0	0	0	0	0	0
Backing	0	0.0	0	0	0	0	0
Slowing/stopping on roadway	0	0.0	0	0	0	0	0
Slowing/stopping other	1	0.1	0	0	1	0	0
Starting up on roadway	1	0.1	0	0	0	1	0
Starting up other	0	0.0	0	0	0	0	0
Entering parking	0	0.0	0	0	0	0	0
Leaving parking	0	0.0	0	0	0	0	0
Entering roadway	2	0.1	0	1	0	0	1
Leaving roadway	0	0.0	0	0	0	0	0
Making U-turn	0	0.0	0	0	0	0	0
Overtaking or passing	0	0.0	0	0	0	0	0
Avoiding object	0	0.0	0	0	0	0	0
Avoiding animal	0	0.0	0	0	0	0	0
Avoiding pedestrian	0	0.0	0	0	0	0	0
Avoiding vehicle (front/back)	1	0.1	0	0	0	1	0
Avoiding vehicle (angle)	0	0.0	0	0	0	0	0
Driverless moving	0	0.0	0	0	0	0	0
Parked	0	0.0	0	0	0	0	0
Crossing at intersection	559	31.3	24	81	186	181	73
Crossing not at intersection	377	21.1	57	105	99	70	29
Getting on/off vehicle	18	1.0	0	6	4	6	1
In roadway with traffic	183	10.3	25	27	45	46	31
In roadway against traffic	26	1.5	3	3	10	5	4
Standing or lying in roadway	141	7.9	20	31	41	30	13
Pushing/working on vehicle	15	0.8	1	5	6	3	0
Other working in roadway	25	1.4	0	7	4	10	3
Playing in roadway	17	1.0	0	0	9	6	1
In roadway other reason	155	8.7	22	43	40	31	14
Not in roadway	86	4.8	15	21	22	24	2
Negotiating a curve	0	0.0	0	0	0	0	0
Other	99	5.5	6	16	30	29	12
Unknown	48	2.7	2	19	11	4	7
TOTAL	1,784	100.0	175	367	519	457	197

*Includes 69 pedestrians with unknown injury severity

MOST HARMFUL EVENT

NONCOLLISION	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
Loss of control	3,545	0.9	10	149	367	557	2,462
Ran off roadway left	1,093	0.3	2	29	87	138	837
Ran off roadway right	1,796	0.4	1	50	128	214	1,403
Re-enter roadway	172	0.0	0	4	7	23	138
Overturn	5,249	1.3	109	405	1,034	1,086	2,615
Separation of Units	369	0.1	2	2	13	71	281
Fire/explosion	440	0.1	12	11	22	15	380
Immersion	105	0.0	1	3	1	15	85
Jackknife	187	0.0	0	1	3	16	167
Downhill runaway	17	0.0	0	0	1	0	16
Cargo loss/shift	371	0.1	0	1	6	6	358
Individual fell from vehicle	390	0.1	15	128	175	49	23
Other noncollision	1,006	0.2	0	31	60	110	805
Equipment failure (blown tire, brake failure, etc.)	510	0.1	2	2	20	29	457
Cross centerline	758	0.2	0	22	69	98	569
Cross median	110	0.0	1	7	6	15	81
SUBTOTAL	16,118	4.0	155	845	1,999	2,442	10,677

COLLISION WITH A NONFIXED OBJECT	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
Pedestrian	1,466	0.4	164	308	438	361	195
Bicyclist	1,139	0.3	35	136	422	311	235
Motor vehicle in transport	281,235	69.6	989	4,760	17,447	40,097	217,942
Parked motor vehicle	15,302	3.8	31	147	515	899	13,710
Railroad train	30	0.0	0	4	4	1	21
Animal	52,011	12.9	0	69	327	634	50,981
Other nonfixed object	3,289	0.8	9	33	94	164	2,989
Work zone/maintenance equipment	111	0.0	1	2	4	12	92
Cargo falling/shifting/anything set in motion by a motor vehicle	631	0.2	0	2	21	21	587
SUBTOTAL	355,214	87.9	1,229	5,461	19,272	42,500	286,752

MOST HARMFUL EVENT (CONTINUED)

COLLISION WITH A FIXED OBJECT	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
Bridge pier/abutment/support	149	0.0	3	9	14	16	107
Bridge rail	242	0.1	2	6	17	30	187
Guardrail face	1,888	0.5	2	30	88	208	1,560
Guardrail end	485	0.1	2	11	38	70	364
Other post/pole/support	952	0.2	7	20	49	78	798
Culvert	372	0.1	4	21	54	58	235
Curb	1,460	0.4	6	29	65	81	1,279
Ditch	4,848	1.2	10	132	399	536	3,771
Embankment	703	0.2	7	34	60	102	500
Fence	673	0.2	2	12	22	65	572
Mailbox	1,165	0.3	1	7	13	36	1,108
Tree	7,100	1.8	125	444	923	944	4,664
Rail crossing signal	67	0.0	0	1	0	5	61
Building	561	0.1	12	25	81	86	357
Traffic island	35	0.0	0	0	1	2	32
Fire hydrant	426	0.1	0	0	26	36	364
Impact attenuator	156	0.0	1	3	11	21	120
Other fixed object	1,440	0.4	3	51	113	147	1,126
Bridge overhead structure	41	0.0	0	2	1	4	34
Cable barrier	724	0.2	0	9	30	69	616
Concrete barrier	3,742	0.9	16	65	278	727	2,656
Traffic sign/post	2,242	0.6	5	15	41	94	2,087
Traffic signal equipment	195	0.0	0	5	8	16	166
Utility pole/light support	3,282	0.8	34	79	303	473	2,393
SUBTOTAL	32,948	8.1	242	1,010	2,635	3,904	25,157

	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
Unknown Event	6	0.0	0	0	0	1	5
MOST HARMFUL EVENT TOTAL	404,286	100.0	1,626	7,316	23,906	48,847	322,591

VEHICLE DEFECTS IN CRASH INVOLVEMENT

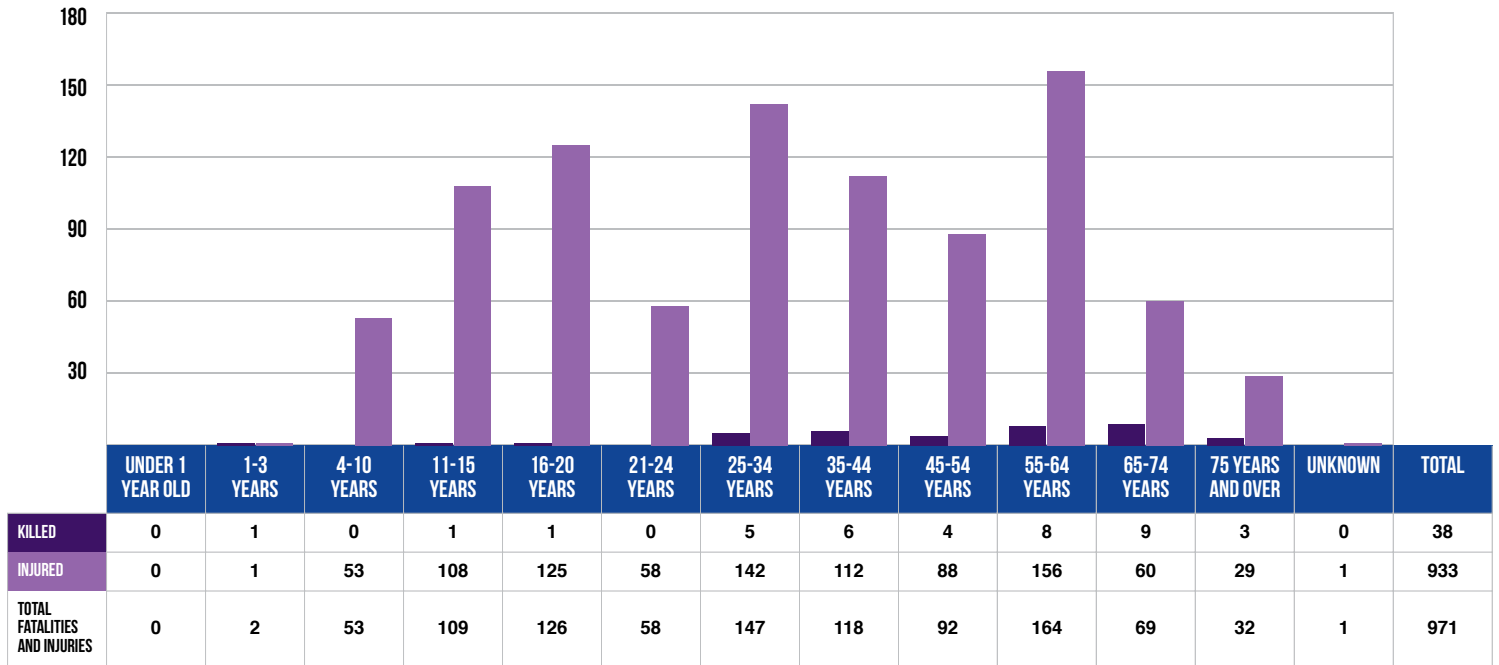
VEHICLE DEFECTS	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
Brakes	663	0.2	4	17	58	103	481
Lights/reflectors	98	0.0	2	6	1	17	72
Steering	227	0.1	0	6	24	35	162
Tires/wheels	598	0.1	4	16	38	59	481
Windows	23	0.0	0	1	2	0	20
Coupling/hitch/chains	76	0.0	0	0	3	5	68
Other	945	0.2	2	19	53	115	756
None or Unknown	401,656	99.3	1,614	7,251	23,727	48,513	320,551
TOTAL	404,286	100.0	1,626	7,316	23,906	48,847	322,591

DRIVER HAZARDOUS ACTION

HAZARDOUS ACTION	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
None	206,962	51.2	634	2,960	10,595	22,670	170,103
Speed too fast	22,391	5.5	190	695	1,766	3,008	16,732
Speed too slow	140	0.0	0	3	9	28	100
Failed to yield	34,404	8.5	105	752	2,990	5,560	24,997
Disregard traffic control	9,700	2.4	67	401	1,306	2,264	5,662
Drove wrong way	371	0.1	10	12	44	63	242
Drove left of center	2,193	0.5	54	130	267	311	1,431
Improper passing	2,366	0.6	6	48	80	151	2,081
Improper lane use	10,054	2.5	17	94	343	772	8,828
Improper turn	4,344	1.1	12	52	204	496	3,580
Improper/no signal	292	0.1	0	3	4	21	264
Improper backing	5,536	1.4	1	11	37	121	5,366
Unable to stop in assured clear distance	45,227	11.2	45	351	2,087	6,549	36,195
Reckless driving	2,620	0.6	112	218	334	418	1,538
Careless/negligent driving	10,386	2.6	90	523	1,129	1,496	7,148
Other	13,432	3.3	80	395	1,142	1,563	10,252
Unknown	33,868	8.4	203	668	1,569	3,356	28,072
TOTAL	404,286	100.0	1,626	7,316	23,906	48,847	322,591

MICHIGAN BICYCLE CRASHES

2020 BICYCLIST FATALITIES AND INJURIES



In 2020, there were 1,235 bicyclists involved in motor vehicle crashes, with 38 bicyclists killed and 933 injured. The top age group for bicyclist fatalities was the 65-74 age group with nine fatalities (23.7%). The 55-64 age group had the greatest percentage of total fatalities and injuries (16.9%).

BICYCLE HELMET USE AND INJURY SEVERITY

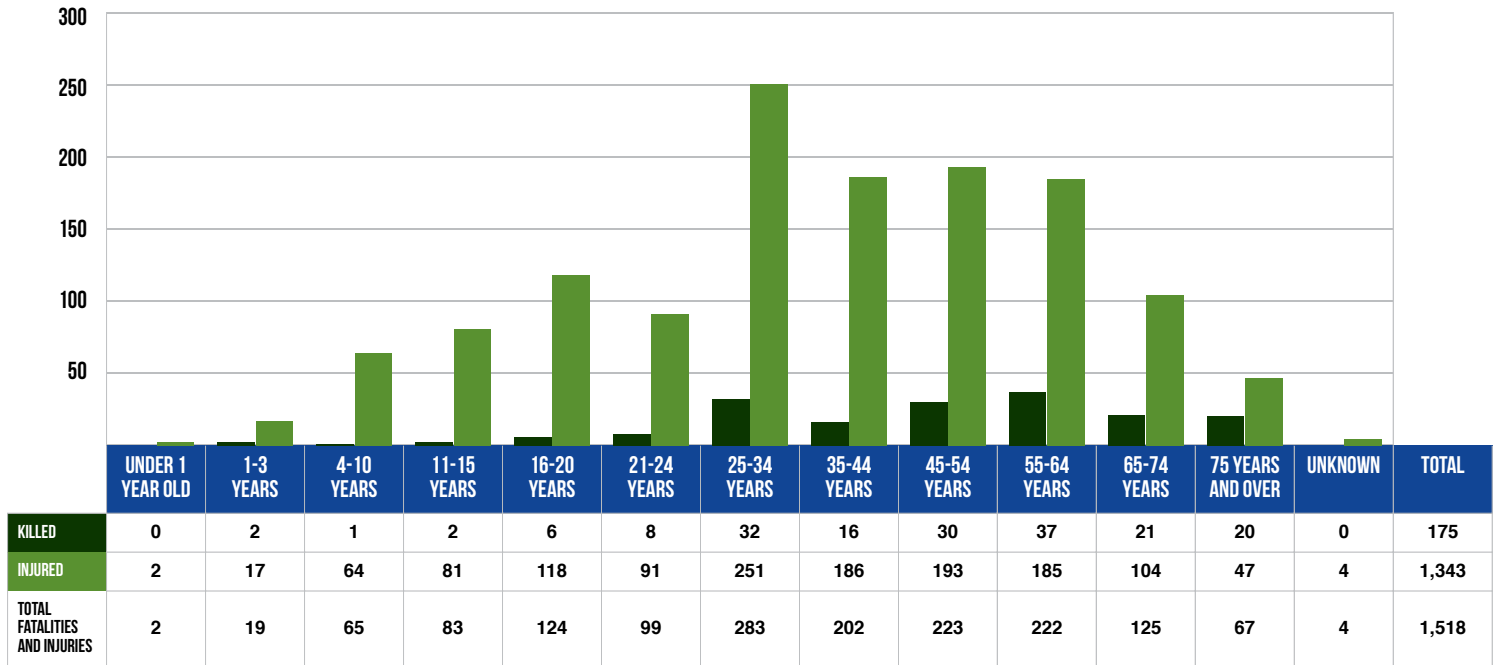
HELMET USE	FATALITY	INJURY			NO INJURY	UNKNOWN	TOTAL
		A	B	C			
Worn	8	32	85	58	30	3	216
Not Worn	14	67	196	138	90	12	517
Unknown	16	48	164	145	97	32	502
Total	38	147	445	341	217	47	1,235

Note: The data does not include helmet use for all bicyclists. There were 502 bicyclists with unknown helmet use.

The National Center for Statistics and Analysis of the National Highway Traffic Safety Administration cites a study by the Centers for Disease Control [12]: “Bicycle helmets are 85 to 88 percent effective in mitigating head and brain injuries in all types of bicycle accidents, making the use of helmets the single most effective countermeasure available to reduce head injuries and fatalities resulting from bicycle crashes.”

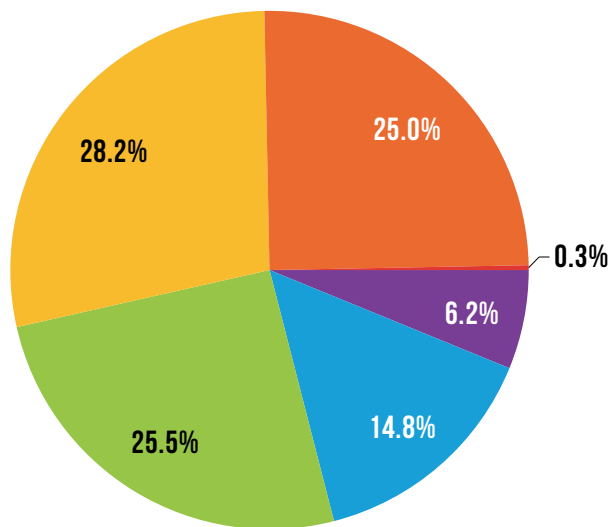
MICHIGAN PEDESTRIAN CRASHES

2020 PEDESTRIAN FATALITIES AND INJURIES

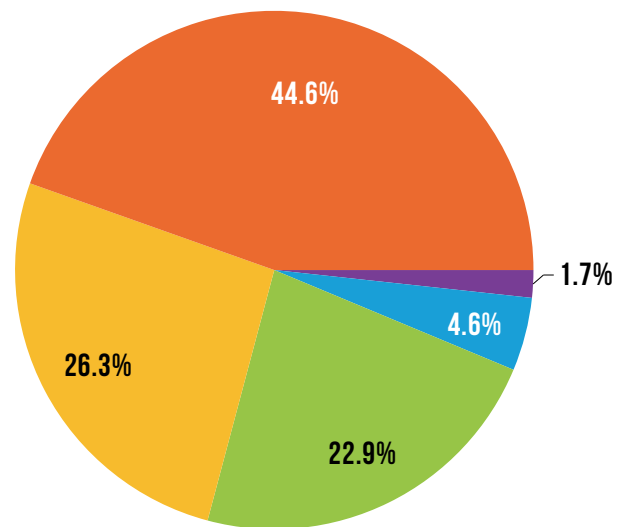


In 2020, there were 1,784 pedestrians involved in motor vehicle crashes, with 175 pedestrians killed and 1,343 injured. The top age group for pedestrian fatalities was the 55-64 age group with 37 fatalities (21.1%). The 25-34 age group had the greatest number of injuries (18.7%), and the greatest percentage of total fatalities and injuries (18.6%).

■ 0-10 YEARS
 ■ 11-20 YEARS
 ■ 21-34 YEARS
 ■ 35-54 YEARS
 ■ 55 AND OVER
 ■ UNKNOWN



PEDESTRIANS INJURED



PEDESTRIANS KILLED

MICHIGAN SNOWMOBILE CRASHES ON PUBLIC ROADWAYS - MOST HARMFUL EVENT

NONCOLLISION	SNOWMOBILES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Snowmobiles	% of Total		A	B	C	
Loss of control	3	3.0	0	0	2	0	1
Ran off roadway left	0	0.0	0	0	0	0	0
Ran off roadway right	1	1.0	0	1	0	0	0
Re-enter roadway	0	0.0	0	0	0	0	0
Overturn	7	7.1	0	3	2	2	0
Separation of Units	0	0.0	0	0	0	0	0
Fire/explosion	2	2.0	0	0	0	0	2
Immersion	0	0.0	0	0	0	0	0
Jackknife	0	0.0	0	0	0	0	0
Downhill runaway	0	0.0	0	0	0	0	0
Cargo loss/shift	0	0.0	0	0	0	0	0
Individual fell from vehicle	14	14.1	0	5	8	1	0
Other noncollision	2	2.0	0	0	0	1	1
Equipment failure (blown tire, brake failure, etc.)	0	0.0	0	0	0	0	0
Cross centerline	0	0.0	0	0	0	0	0
Cross median	0	0.0	0	0	0	0	0
SUBTOTAL	29	29.3	0	9	12	4	4

COLLISION WITH A NONFIXED OBJECT	SNOWMOBILES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Snowmobiles	% of Total		A	B	C	
Pedestrian	1	1.0	0	0	0	1	0
Bicyclist	0	0.0	0	0	0	0	0
Motor vehicle in transport	37	37.4	1	10	3	8	15
Parked motor vehicle	4	4.0	0	0	0	3	1
Railroad train	0	0.0	0	0	0	0	0
Animal	4	4.0	0	0	0	0	4
Other nonfixed object	2	2.0	0	1	1	0	0
Work zone/maintenance equipment	0	0.0	0	0	0	0	0
Cargo falling/shifting/anything set in motion by a motor vehicle	0	0.0	0	0	0	0	0
SUBTOTAL	48	48.5	1	11	4	12	20

MICHIGAN SNOWMOBILE CRASHES ON PUBLIC ROADWAYS - MOST HARMFUL EVENT (CONTINUED)

COLLISION WITH A FIXED OBJECT	SNOWMOBILES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Snowmobiles	% of Total		A	B	C	
Bridge pier/abutment/support	0	0.0	0	0	0	0	0
Bridge rail	0	0.0	0	0	0	0	0
Guardrail face	1	1.0	0	0	0	1	0
Guardrail end	0	0.0	0	0	0	0	0
Other post/pole/support	0	0.0	0	0	0	0	0
Culvert	0	0.0	0	0	0	0	0
Curb	0	0.0	0	0	0	0	0
Ditch	0	0.0	0	0	0	0	0
Embankment	1	1.0	0	1	0	0	0
Fence	0	0.0	0	0	0	0	0
Mailbox	0	0.0	0	0	0	0	0
Tree	14	14.1	1	2	2	2	7
Rail crossing signal	0	0.0	0	0	0	0	0
Building	2	2.0	0	0	1	0	1
Traffic island	0	0.0	0	0	0	0	0
Fire hydrant	0	0.0	0	0	0	0	0
Impact attenuator	0	0.0	0	0	0	0	0
Other fixed object	3	3.0	0	2	0	0	1
Bridge overhead structure	0	0.0	0	0	0	0	0
Cable barrier	0	0.0	0	0	0	0	0
Concrete barrier	0	0.0	0	0	0	0	0
Traffic sign/post	0	0.0	0	0	0	0	0
Traffic signal equipment	0	0.0	0	0	0	0	0
Utility pole/light support	1	1.0	0	0	0	0	1
SUBTOTAL	22	22.2	1	5	3	3	10

	SNOWMOBILES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Snowmobiles	% of Total		A	B	C	
Unknown Event	0	0.0	0	0	0	0	0
MOST HARMFUL EVENT TOTAL	99	100.0	2	25	19	19	34

Note: These crashes involve a motor vehicle in transport on a public trafficway and result in injury, death, or at least \$1,000 in property damage.

A total of 99 snowmobiles were reported in crashes on Michigan public roadways during 2020, resulting in two fatal crashes. A total of 63 snowmobiles were involved in 55 injury crashes.

MICHIGAN ORV/ATV CRASHES ON PUBLIC ROADWAYS - MOST HARMFUL EVENT

NONCOLLISION	ORV/ATV		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of ORV/ATVs	% of Total		A	B	C	
Loss of control	39	8.5	1	11	15	2	10
Ran off roadway left	0	0.0	0	0	0	0	0
Ran off roadway right	9	2.0	0	1	4	2	2
Re-enter roadway	1	0.2	0	0	0	0	1
Overturn	100	21.8	6	33	40	13	8
Separation of Units	0	0.0	0	0	0	0	0
Fire/explosion	1	0.2	0	0	0	0	1
Immersion	0	0.0	0	0	0	0	0
Jackknife	0	0.0	0	0	0	0	0
Downhill runaway	1	0.2	0	0	1	0	0
Cargo loss/shift	0	0.0	0	0	0	0	0
Individual fell from vehicle	39	8.5	0	20	17	2	0
Other noncollision	2	0.4	0	1	1	0	0
Equipment failure (blown tire, brake failure, etc.)	2	0.4	0	1	1	0	0
Cross centerline	5	1.1	0	0	3	1	1
Cross median	0	0.0	0	0	0	0	0
SUBTOTAL	199	43.4	7	67	82	20	23

COLLISION WITH A NONFIXED OBJECT	ORV/ATV		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of ORV/ATVs	% of Total		A	B	C	
Pedestrian	2	0.4	0	0	2	0	0
Bicyclist	1	0.2	0	0	1	0	0
Motor vehicle in transport	156	34.0	5	29	37	25	60
Parked motor vehicle	18	3.9	0	3	5	0	10
Railroad train	0	0.0	0	0	0	0	0
Animal	11	2.4	0	2	0	2	7
Other nonfixed object	3	0.7	0	0	1	1	1
Work zone/maintenance equipment	0	0.0	0	0	0	0	0
Cargo falling/shifting/anything set in motion by a motor vehicle	1	0.2	0	0	0	1	0
SUBTOTAL	192	41.8	5	34	46	29	78

MICHIGAN ORV/ATV CRASHES ON PUBLIC ROADWAYS - MOST HARMFUL EVENT (CONTINUED)

COLLISION WITH A FIXED OBJECT	ORV/ATV		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of ORV/ ATVs	% of Total		A	B	C	
Bridge pier/abutment/support	0	0.0	0	0	0	0	0
Bridge rail	0	0.0	0	0	0	0	0
Guardrail face	0	0.0	0	0	0	0	0
Guardrail end	0	0.0	0	0	0	0	0
Other post/pole/support	3	0.7	1	1	0	0	1
Culvert	3	0.7	0	0	2	1	0
Curb	1	0.2	0	1	0	0	0
Ditch	11	2.4	0	7	3	1	0
Embankment	3	0.7	0	1	0	1	1
Fence	0	0.0	0	0	0	0	0
Mailbox	5	1.1	1	0	1	0	3
Tree	31	6.8	2	17	9	3	0
Rail crossing signal	1	0.2	0	1	0	0	0
Building	1	0.2	0	0	1	0	0
Traffic island	0	0.0	0	0	0	0	0
Fire hydrant	0	0.0	0	0	0	0	0
Impact attenuator	0	0.0	0	0	0	0	0
Other fixed object	6	1.3	0	4	0	1	1
Bridge overhead structure	0	0.0	0	0	0	0	0
Cable barrier	0	0.0	0	0	0	0	0
Concrete barrier	0	0.0	0	0	0	0	0
Traffic sign/post	1	0.2	0	0	0	0	1
Traffic signal equipment	0	0.0	0	0	0	0	0
Utility pole/light support	2	0.4	0	0	1	0	1
SUBTOTAL	68	14.8	4	32	17	7	8

	ORV/ATV		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of ORV/ ATVs	% of Total		A	B	C	
Unknown Event	0	0.0	0	0	0	0	0
MOST HARMFUL EVENT TOTAL	459	100.0	16	133	145	56	109

Note: These crashes involve a motor vehicle in transport on a public trafficway and result in injury, death, or at least \$1,000 in property damage.

A total of 459 off-road/all-terrain vehicles were reported in crashes on Michigan public roadways during 2020, resulting in 15 fatal crashes. An additional 334 ORV/ATVs were involved in 322 injury crashes.

MICHIGAN SNOWMOBILE CRASHES ON PUBLIC ROADWAYS

HAZARDOUS ACTION	SNOWMOBILES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Snowmobiles	% of Total		A	B	C	
None	31	31.3	0	4	5	8	14
Speed too fast	33	33.3	1	11	9	4	8
Speed too slow	0	0.0	0	0	0	0	0
Failed to yield	11	11.1	0	1	0	3	7
Disregard traffic control	1	1.0	0	0	1	0	0
Drove wrong way	0	0.0	0	0	0	0	0
Drove left of center	0	0.0	0	0	0	0	0
Improper passing	0	0.0	0	0	0	0	0
Improper lane use	0	0.0	0	0	0	0	0
Improper turn	0	0.0	0	0	0	0	0
Improper/no signal	0	0.0	0	0	0	0	0
Improper backing	0	0.0	0	0	0	0	0
Unable to stop in assured clear distance	1	1.0	0	1	0	0	0
Reckless driving	2	2.0	0	1	0	1	0
Careless/negligent driving	9	9.1	1	3	1	1	3
Other	4	4.0	0	1	1	1	1
Unknown	7	7.1	0	3	2	1	1
Total	99	100.0	2	25	19	19	34

MICHIGAN ORV/ATV CRASHES ON PUBLIC ROADWAYS

HAZARDOUS ACTION	ORV/ATV		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of ORV/ATVs	% of Total		A	B	C	
None	94	20.5	0	25	28	16	25
Speed too fast	109	23.7	6	42	36	12	13
Speed too slow	0	0.0	0	0	0	0	0
Failed to yield	33	7.2	1	4	8	7	13
Disregard traffic control	8	1.7	0	2	3	0	3
Drove wrong way	3	0.7	0	1	0	0	2
Drove left of center	1	0.2	0	0	0	0	1
Improper passing	2	0.4	0	0	1	0	1
Improper lane use	5	1.1	0	1	2	0	2
Improper turn	5	1.1	0	1	1	1	2
Improper/no signal	1	0.2	0	0	0	1	0
Improper backing	6	1.3	0	1	0	1	4
Unable to stop in assured clear distance	21	4.6	0	5	9	1	6
Reckless driving	17	3.7	2	9	3	0	3
Careless/negligent driving	66	14.4	3	18	29	3	13
Other	47	10.2	3	14	14	7	9
Unknown	41	8.9	1	10	11	7	12
Total	459	100.0	16	133	145	56	109

Note: These crashes involve a motor vehicle in transport on a public trafficway and result in injury, death, or at least \$1,000 in property damage.

MICHIGAN FARM EQUIPMENT CRASHES

FARM EQUIPMENT CRASHES	2019	2020	% CHANGE
Crashes	232	181	-22.0%
Fatalities	6	5	-16.7%
Injuries	75	66	-12.0%

A total of 181 crashes involving farm equipment were reported on Michigan roadways during 2020. Of those crashes, five were fatal with five people killed.

MICHIGAN VEHICLE-TRAIN CRASHES

VEHICLE TRAIN CRASHES	2019	2020	% CHANGE
Crashes	53	35	-34.0%
Fatalities	7	0	-100.0%
Injuries	14	13	-7.1%

A total of 35 crashes involving trains were reported in Michigan during 2020. There were no fatal crashes involving trains in 2020.

MICHIGAN MOTORCYCLE CRASHES

MOTORCYCLE DATA	2019	2020	% CHANGE
Motorcycle Registrations	251,048	237,481	-5.4%
Motorcycles in Crashes	2,809	3,092	10.1%
Motorcyclist Deaths	122	152	24.6%
Motorcyclists Injured	2,176	2,429	11.6%
Death Rate based on 10,000 motorcycle registrations	4.86	6.40	31.7%
Estimated Mileage based on 3,000 miles per motorcycle	753,144,000	712,443,000	-5.4%
Death Rate based on deaths per 100 million vehicle miles traveled	16.20	21.34	31.7%

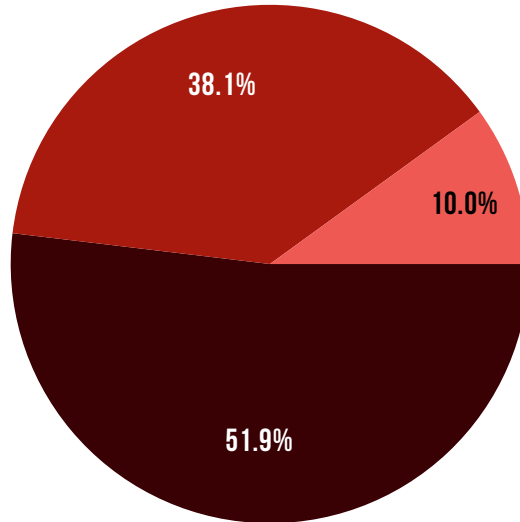
Motorcycles were involved in 1.2 percent of all traffic crashes in Michigan in 2020. Injuries were proportionately more severe to motorcyclists than to persons in motor vehicles.

DRIVER GENDER INFORMATION

MALES

FEMALES

UNKNOWN

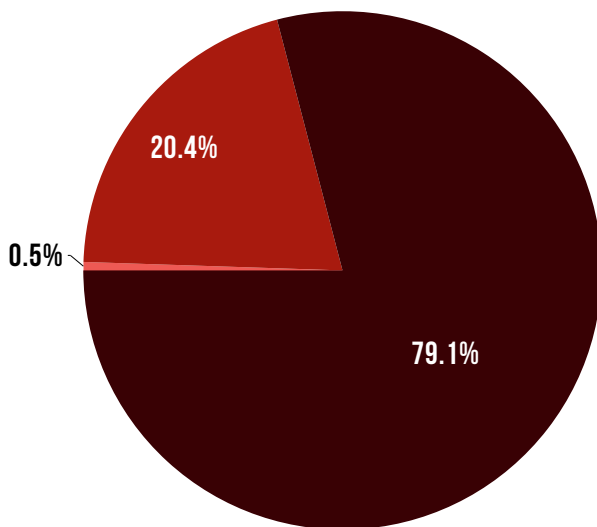


ALL DRIVERS

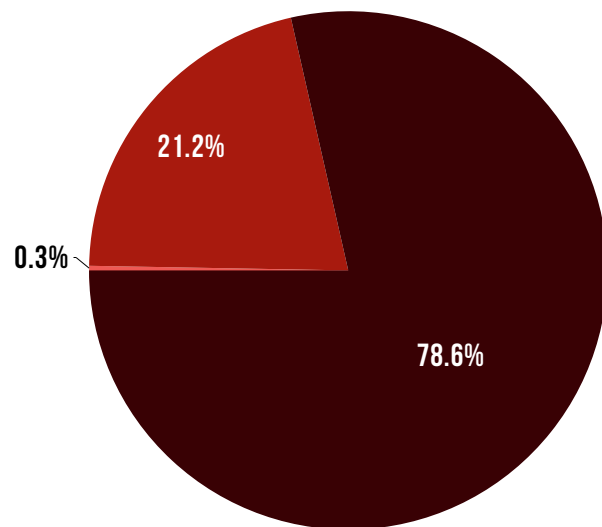
FATAL

INJURY

PROPERTY DAMAGE ONLY



MALE CRASH SEVERITY



FEMALE CRASH SEVERITY

A higher proportion of drivers in crashes are male than female. When examining the severity of crashes involving drivers of each gender, fatal crashes are more prevalent among male drivers than female drivers (0.5% vs. 0.3%).

PERSON AGE - DEMOGRAPHICS AND CRASH INVOLVEMENTS

AGE	LICENSED DRIVERS	POPULATION*	TOTAL DRIVERS IN CRASHES	DRIVERS IN FATAL CRASHES	OCCUPANTS KILLED	OCCUPANTS INJURED	TOTAL BICYCLISTS IN CRASHES	BICYCLISTS IN FATAL CRASHES	TOTAL PEDESTRIANS IN CRASHES	PEDESTRIANS IN FATAL CRASHES
0-15	38,483	1,889,940	765	3	24	3,346	214	2	202	5
16	70,077	126,571	5,041	9	9	954	38	1	29	0
17	85,646	127,422	7,119	22	17	1,279	33	0	24	1
18	80,924	132,978	9,069	22	14	1,724	26	0	26	0
19	94,092	130,779	10,117	37	11	1,758	32	0	32	2
20	104,221	133,397	9,773	35	18	1,711	25	0	39	4
21-24	428,832	548,369	37,447	145	91	6,237	79	0	116	8
25-29	571,359	697,811	42,963	194	89	6,852	96	3	174	19
30-34	583,030	613,803	36,317	177	87	5,710	88	2	148	18
35-39	546,327	599,328	30,796	141	58	4,508	77	6	113	6
40-44	525,630	566,844	27,615	111	59	3,905	59	1	116	14
45-49	528,392	612,531	27,163	115	59	3,722	62	2	129	18
50-54	586,454	642,148	26,725	95	53	3,676	61	2	132	13
55-59	631,115	708,151	26,243	110	56	3,587	106	5	136	16
60-64	639,225	691,384	22,621	86	50	3,204	89	3	116	23
65-69	558,618	584,379	15,802	68	43	2,351	52	4	80	9
70-74	446,050	453,201	11,244	46	37	1,764	28	5	63	13
75-79	289,544	313,609	7,101	50	39	1,147	24	2	38	10
80-84	174,370	201,076	3,814	25	19	721	6	1	17	5
85+	135,808	213,136	2,471	33	37	522	4	0	19	5
Unknown	---	---	44,080	102	0	32	36	0	35	0
TOTAL	7,118,197	9,986,857	404,286	1,626	870	58,710	1,235	39	1,784	189

*Population data for 2020 by age is not yet available. Data from 2019 is used.

CRASH RATE PER LICENSED DRIVER BY AGE OF DRIVER IN ALL CRASHES

AGE	LICENSED DRIVERS	TOTAL DRIVERS IN CRASHES*	CRASH RATE
0-15	38,483	765	0.020
16	70,077	5,041	0.072
17	85,646	7,119	0.083
18	80,924	9,069	0.112
19	94,092	10,117	0.108
20	104,221	9,773	0.094
21-24	428,832	37,447	0.087
25-29	571,359	42,963	0.075
30-34	583,030	36,317	0.062
35-39	546,327	30,796	0.056
40-44	525,630	27,615	0.053
45-49	528,392	27,163	0.051
50-54	586,454	26,725	0.046
55-59	631,115	26,243	0.042
60-64	639,225	22,621	0.035
65-69	558,618	15,802	0.028
70-74	446,050	11,244	0.025
75-79	289,544	7,101	0.025
80-84	174,370	3,814	0.022
85-89	92,359	1,775	0.019
90-94	36,544	611	0.017
95-99	6,521	83	0.013
100+	384	2	0.005
TOTAL	7,118,197	360,206	0.051

Data entry errors may result in an over-representation of age "100+" drivers

*Excludes 44,080 drivers with unknown age

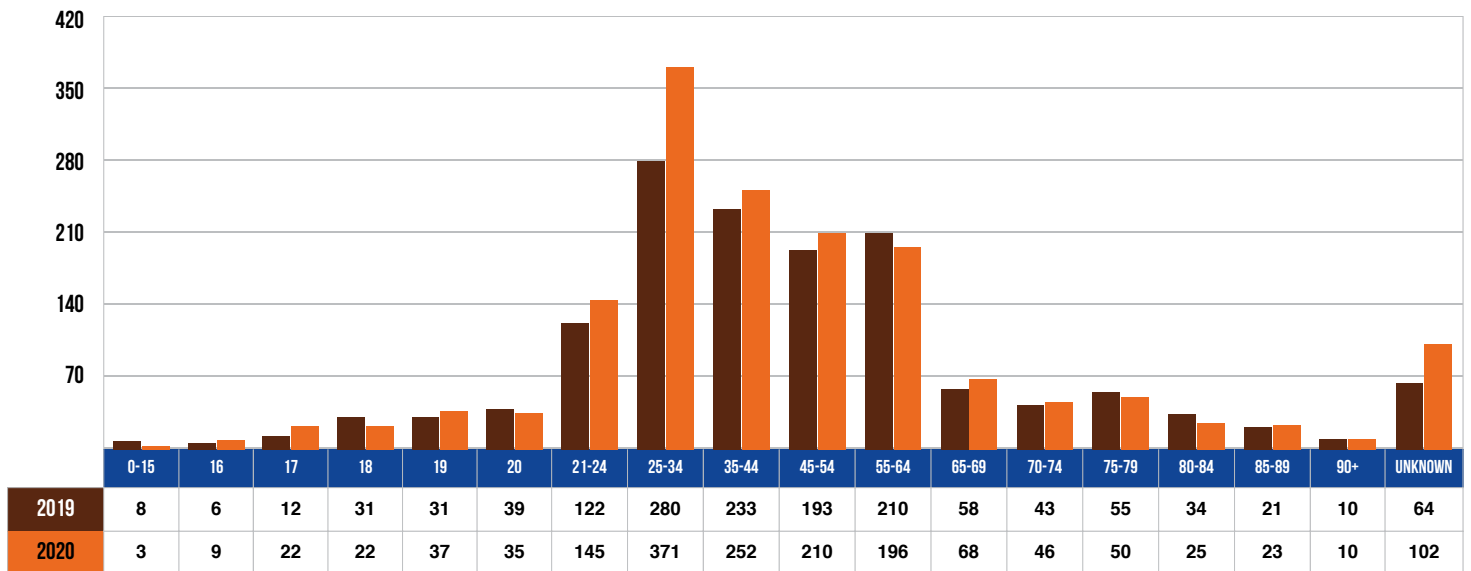
Licensed drivers age 18 have the highest crash rate at 0.112 (total crash involvements in age group divided by total number of licensed drivers in age group). The lower crash rates of the older groups (per licensed driver) may reflect reduced driving and exposure to the risk of a crash.

DRIVER AGE

AGE OF DRIVERS IN FATAL CRASHES	2019	2020	PERCENT CHANGE	PERCENT 2020 FATAL CRASH INVOLVEMENT	PERCENT ACTIVE DRIVING POPULATION*
15 years and under	8	3	-62.5	0.2	0.5
16 years	6	9	50.0	0.6	1.0
17 years	12	22	83.3	1.4	1.2
18 years	31	22	-29.0	1.4	1.1
19 years	31	37	19.4	2.3	1.3
20 years	39	35	-10.3	2.2	1.5
21 - 24 years	122	145	18.9	8.9	6.0
25 - 34 years	280	371	32.5	22.8	16.2
35 - 44 years	233	252	8.2	15.5	15.1
45 - 54 years	193	210	8.8	12.9	15.7
55 - 64 years	210	196	-6.7	12.1	17.8
65 - 69 years	58	68	17.2	4.2	7.8
70 - 74 years	43	46	7.0	2.8	6.3
75 - 79 years	55	50	-9.1	3.1	4.1
80 - 84 years	34	25	-26.5	1.5	2.4
85 - 89 years	21	23	9.5	1.4	1.3
90 years and over	10	10	0.0	0.6	0.6
Unknown	64	102	59.4	6.3	---
Total	1,450	1,626	12.1	100.0	100.0

*Figures courtesy of the Michigan Department of State [13]

DRIVER AGE IN FATAL CRASHES



DRIVER CONDITION

POSSIBLE CONDITIONS OF DRIVER	CONDITIONS (CODED BY POLICE)	FATAL CRASHES	INJURY CRASHES			PROPERTY DAMAGE ONLY
			A	B	C	
Normal	308,485	635	4,274	17,962	37,874	247,740
Fatigued or Asleep	2,289	12	112	371	480	1,314
Sick	863	6	35	115	211	496
Medicated	442	3	17	63	107	252
Emotional	4,468	61	286	758	1,270	2,093
Physically Disabled	1,010	54	429	198	157	172
Unknown	34,376	537	1,039	1,687	3,692	27,421
Other	8,057	211	715	1,454	1,728	3,949

Note: Drivers may have more than one condition including "Normal." These are driver conditions that, in the opinion of the investigating officer, were involved in the crash. While some conditions may be evident, others will only be known if the driver admits to the condition, thus leading to possible underreporting.

DRIVER INJURY SEVERITY BY RESTRAINT, ALCOHOL, AND DRUG USE

RESTRAINT USAGE	DRIVERS		FATALITY		INJURY			NO INJURY	UNKNOWN
	Number	% of Total	Number	% of Total	A	B	C		
ALL DRIVERS									
Restraint Used*	333,372	82.5	303	43.8	2,535	10,954	24,761	294,819	0
Restraint Not Used	4,979	1.2	266	38.4	854	1,049	751	2,058	1
Unknown	65,935	16.3	123	17.8	458	904	2,035	17,141	45,274
TOTAL	404,286	100.0	692	100.0	3,847	12,907	27,547	314,018	45,275
DRINKING DRIVERS ONLY									
Restraint Used*	5,516	72.1	25	28.1	215	683	694	3,899	0
Restraint Not Used	627	8.2	48	53.9	186	157	92	144	0
Unknown	1,508	19.7	16	18.0	85	155	194	1,058	0
TOTAL	7,651	100.0	89	100.0	486	995	980	5,101	0
DRUGGED DRIVERS ONLY									
Restraint Used*	1,261	73.5	25	41.0	82	156	214	784	0
Restraint Not Used	181	10.6	31	50.8	42	36	24	48	0
Unknown	273	15.9	5	8.2	22	33	44	169	0
TOTAL	1,715	100.0	61	100.0	146	225	282	1,001	0
DRINKING AND DRUGGED DRIVERS ONLY									
Restraint Used*	793	60.8	16	22.2	61	119	135	462	0
Restraint Not Used	180	13.8	41	56.9	47	37	25	30	0
Unknown	332	25.4	15	20.8	29	50	48	189	1
TOTAL	1,305	100.0	72	100.0	137	206	208	681	1

Note: 'Restraint Used' includes shoulder belt only, lap belt only, both lap and shoulder belts, restraint failed, and helmet worn