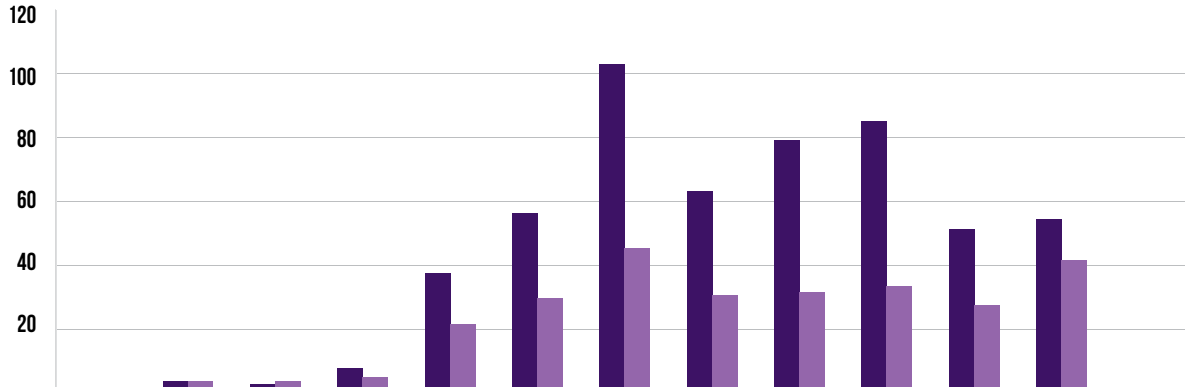


AGE AND GENDER OF OCCUPANTS KILLED OR INJURED IN MOTOR VEHICLE CRASHES

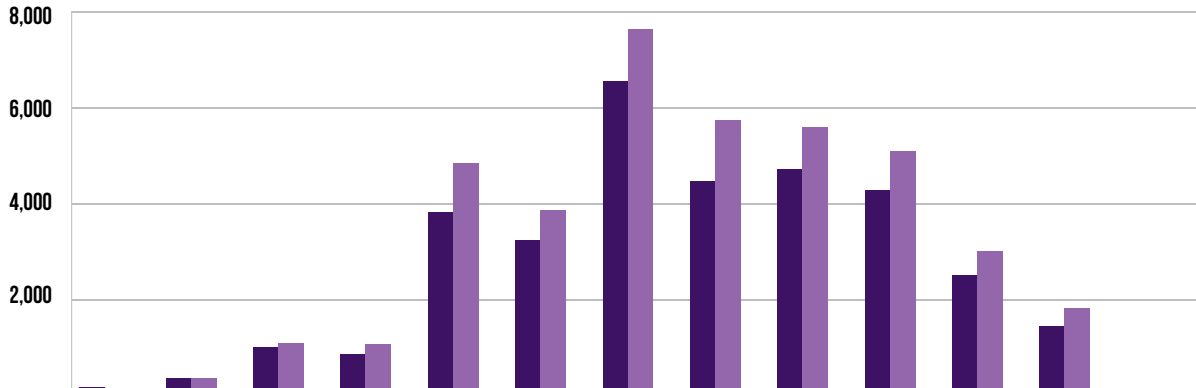
OCCUPANTS KILLED



	UNDER 1 YEAR OLD	1-3 YEARS	4-10 YEARS	11-15 YEARS	16-20 YEARS	21-24 YEARS	25-34 YEARS	35-44 YEARS	45-54 YEARS	55-64 YEARS	66-74 YEARS	75 YEARS AND OVER	UNKNOWN	TOTAL
MALES KILLED	1	3	2	7	37	56	103	63	79	85	51	54	0	541
FEMALES KILLED	0	3	3	4	21	29	45	30	31	33	27	41	0	267
TOTAL	1	6	5	11	58	85	148	93	110	118	78	95	0	808

The majority (67.0%) of occupants killed in traffic crashes in 2018 were male.

OCCUPANTS INJURED



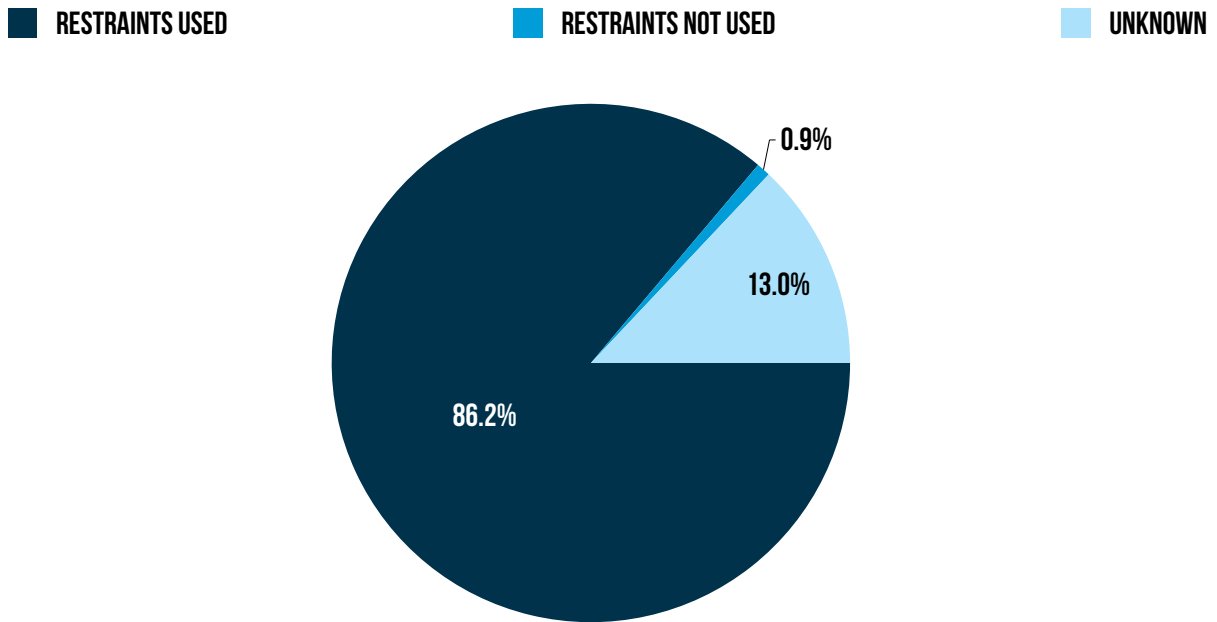
	UNDER 1 YEAR OLD	1-3 YEARS	4-10 YEARS	11-15 YEARS	16-20 YEARS	21-24 YEARS	25-34 YEARS	35-44 YEARS	45-54 YEARS	55-64 YEARS	66-74 YEARS	75 YEARS AND OVER	UNKNOWN	TOTAL
MALES INJURED	108	304	957	805	3,796	3,197	6,539	4,438	4,681	4,243	2,467	1,395	4	32,934
FEMALES INJURED	94	304	1,031	1,024	4,810	3,836	7,630	5,725	5,565	5,062	2,976	1,778	7	39,842
UNKNOWN	7	0	0	0	0	1	0	0	1	1	1	0	28	39
TOTAL	209	608	1,988	1,829	8,606	7,034	14,169	10,163	10,247	9,306	5,444	3,173	39	72,815

The majority (54.7%) of occupants injured in traffic crashes in 2018 were female.

Note: Occupants include all drivers plus all injured or killed persons in or on a motor vehicle.

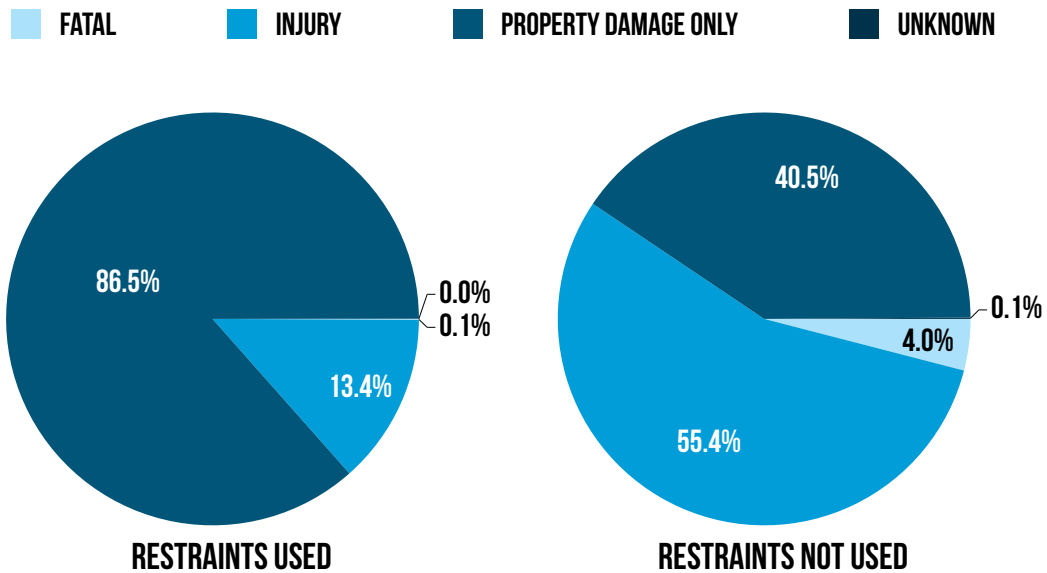
REPORTED OCCUPANT RESTRAINT USAGE FOR ALL DRIVERS AND INJURED PASSENGERS

REPORTED OCCUPANT RESTRAINT USAGE



Of the 548,486 drivers and injured passengers involved in crashes, 472,595 (86.2%) were REPORTED to be using occupant restraints.

INJURY SEVERITY



Occupants in crashes were 53 times more likely to be killed if they were not wearing their restraints.

Note: These charts do not include helmet usage.

MOTOR VEHICLE OCCUPANTS & INJURY SEVERITY BY SEATING POSITION AND KNOWN BELT USAGE

SEATING POSITION	BELTS USED *		FATAL	INJURY			NO INJURY
	Number	% of Total		A	B	C	
Left Front	457,050	97.0	272	2,470	12,573	33,694	408,041
Center Front	551	0.1	2	26	56	215	252
Right Front	9,946	2.1	58	458	1,913	7,091	426
Left Rear Second Seat	1,419	0.3	6	62	248	1,103	0
Center Rear Second Seat	196	0.0	0	10	28	158	0
Right Rear Second Seat	1,469	0.3	12	56	262	1,139	0
Left Rear Third Seat	165	0.0	1	7	27	130	0
Center Rear Third Seat	36	0.0	1	2	6	27	0
Right Rear Third Seat	135	0.0	1	5	18	111	0
Left Rear Fourth Seat	16	0.0	1	0	3	9	3
Center Rear Fourth Seat	8	0.0	0	1	0	4	3
Right Rear Fourth Seat	22	0.0	0	1	3	18	0
Other Passenger Area	11	0.0	0	0	4	7	0
Unknown	161	0.0	0	2	13	35	111
Uncoded & Errors	2	0.0	0	0	0	0	2
TOTAL †	471,187	100.0	354	3,100	15,154	43,741	408,838

* Belts Used includes use of lap, shoulder, or both belts, or restraint failure. Children who were using or not using a child restraint are in separate tables on the next two pages.

† This total does not include 131 occupants with unknown injury severity.

SEATING POSITION	BELTS NOT USED *		FATAL	INJURY			NO INJURY
	Number	% of Total		A	B	C	
Left Front	3,151	67.1	147	362	518	423	1,701
Center Front	46	1.0	0	10	14	10	12
Right Front	370	7.9	25	77	119	122	27
Left Rear Second Seat	210	4.5	5	38	57	110	0
Center Rear Second Seat	69	1.5	0	7	22	40	0
Right Rear Second Seat	273	5.8	6	43	82	142	0
Left Rear Third Seat	38	0.8	1	1	9	27	0
Center Rear Third Seat	17	0.4	1	1	6	9	0
Right Rear Third Seat	34	0.7	0	3	8	23	0
Left Rear Fourth Seat	10	0.2	0	0	4	6	0
Center Rear Fourth Seat	7	0.1	0	1	0	6	0
Right Rear Fourth Seat	14	0.3	0	0	2	12	0
Other Passenger Area	177	3.8	3	18	50	105	1
Unknown	278	5.9	4	14	20	51	189
Uncoded & Errors	0	0.0	0	0	0	0	0
TOTAL †	4,694	100.0	192	575	911	1,086	1,930

* No belts were available or no belts were used. Children who were using or not using a child restraint are in separate tables on the next two pages.

† This total does not include five occupants with unknown injury severity.

Note: Michigan law requires that all persons must wear a seatbelt when riding in the front seat of a motor vehicle.

REPORTED RESTRAINT USAGE - CHILDREN

On July 1, 2008, Michigan law was amended. (<http://legislature.mi.gov/doc.aspx?mcl-257-710e>)

Any child under four years of age must be in an approved Child Safety Seat (CSS)/Child Restraint Device (CRD), and riding in the rear seat. All children less than 8 years of age AND who are less than 4'9" in height, must be properly restrained in a child restraint system. All children ages 8 through 15 must wear a properly adjusted and fastened seat belt when riding in either the front or back seat of a vehicle.

RESTRAINT USAGE	CHILDREN		FATAL	INJURY		
	Number	% of Total		A	B	C
AGE 0						
Belts Used	26	12.4	0	1	5	20
No Belts Used	15	7.1	0	0	13	2
Child Restraint Used - Forward Facing	21	10.0	1	0	5	15
Child Restraint Used - Rear Facing	125	59.5	0	1	7	117
Child Restraint Used - Booster Seat	4	1.9	0	0	0	4
Child Restraint Not Used	7	3.3	0	1	2	4
Restraint Failed	0	0.0	0	0	0	0
Unknown	12	5.7	0	0	2	10
Total	210	100.0	1	3	34	172
AGE 1						
Belts Used	13	7.4	0	0	0	13
No Belts Used	5	2.9	0	0	1	4
Child Restraint Used - Forward Facing	70	40.0	0	0	16	54
Child Restraint Used - Rear Facing	68	38.9	0	1	9	58
Child Restraint Used - Booster Seat	5	2.9	0	2	0	3
Child Restraint Not Used	5	2.9	0	1	1	3
Restraint Failed	0	0.0	0	0	0	0
Unknown	9	5.1	0	0	0	9
Total	175	100.0	0	4	27	144
AGE 2						
Belts Used	18	8.4	0	0	1	17
No Belts Used	7	3.3	0	2	1	4
Child Restraint Used - Forward Facing	144	67.3	1	2	23	118
Child Restraint Used - Rear Facing	21	9.8	0	0	1	20
Child Restraint Used - Booster Seat	9	4.2	0	0	1	8
Child Restraint Not Used	5	2.3	0	3	1	1
Restraint Failed	1	0.5	0	0	0	1
Unknown	9	4.2	0	0	1	8
Total	214	100.0	1	7	29	177

REPORTED RESTRAINT USE - CHILDREN (CONTINUED)

RESTRAINT USAGE	CHILDREN		FATAL	INJURY		
	Number	% of Total		A	B	C
AGE 3						
Belts Used	25	11.1	1	0	4	20
No Belts Used	1	0.4	0	0	1	0
Child Restraint Used - Forward Facing	142	63.1	1	2	27	112
Child Restraint Used - Rear Facing	10	4.4	0	2	1	7
Child Restraint Used - Booster Seat	16	7.1	1	2	4	9
Child Restraint Not Used	14	6.2	0	2	5	7
Restraint Failed	0	0.0	0	0	0	0
Unknown	17	7.6	2	2	2	11
Total	225	100.0	5	10	44	166
AGE 4-7						
Belts Used	384	36.2	1	12	64	307
No Belts Used	54	5.1	2	5	15	32
Child Restraint Used - Forward Facing	295	27.8	0	6	53	236
Child Restraint Used - Rear Facing	11	1.0	0	0	1	10
Child Restraint Used - Booster Seat	196	18.5	0	7	36	153
Child Restraint Not Used	30	2.8	0	5	10	15
Restraint Failed	0	0.0	0	0	0	0
Unknown	91	8.6	0	5	23	63
Total	1,061	100.0	3	40	202	816
AGE 8-15						
Belts Used	2,177	81.1	6	46	432	1,693
No Belts Used	210	7.8	3	20	87	100
Child Restraint Used - Forward Facing	44	1.6	0	0	2	42
Child Restraint Used - Rear Facing	1	0.0	0	0	0	1
Child Restraint Used - Booster Seat	58	2.2	1	1	12	44
Child Restraint Not Used	5	0.2	0	0	1	4
Restraint Failed	0	0.0	0	0	0	0
Unknown	188	7.0	1	11	39	137
Total	2,683	100.0	11	78	573	2,021

Information about uninjured passengers is not required to be reported by the officer on the crash report, thus these tables relate the experience of only those children with injuries in crashes.

Note: Safety equipment usage is often self-reported and may not reflect actual usage.

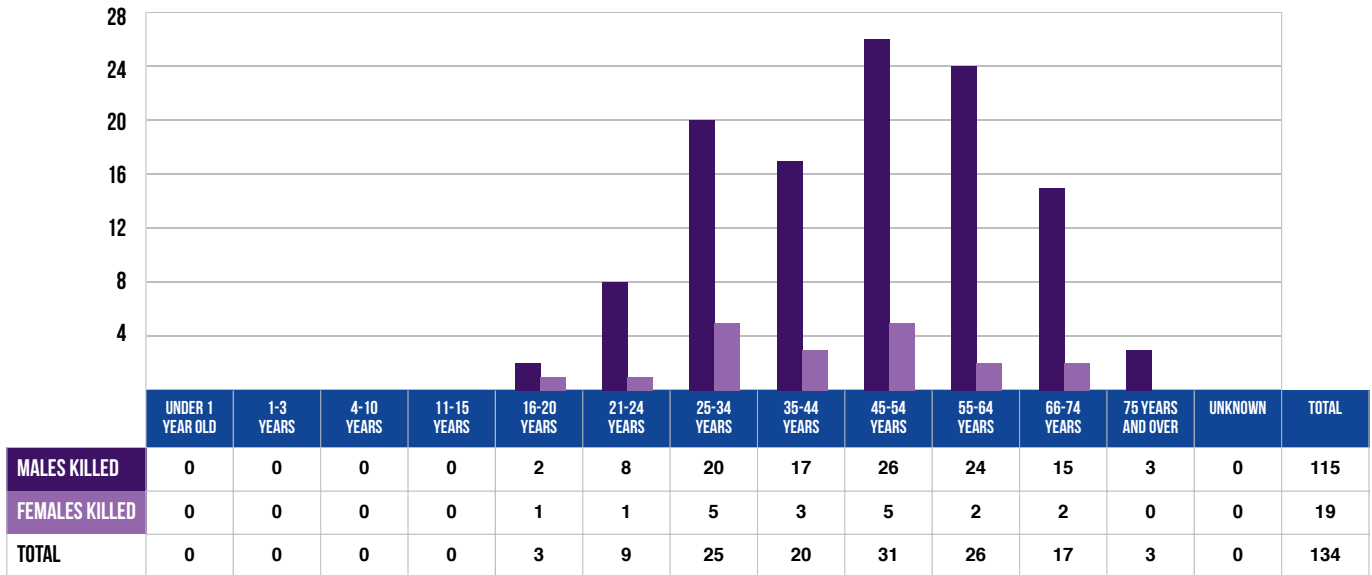
MOTOR VEHICLE OCCUPANT INJURY SEVERITY BY KNOWN AIRBAG DEPLOYMENT

MOTOR VEHICLE OCCUPANT AIRBAG DEPLOYMENT	OCCUPANTS*		FATAL	OCCUPANT INJURY SEVERITY			NO INJURY
	Number	% of Total		A	B	C	
Deployed - front	42,738	7.7	247	1,486	5,694	10,542	24,758
Deployed - side	4,576	0.8	13	103	470	1,070	2,918
Deployed - curtain	3,229	0.6	12	76	333	866	1,941
Deployed - combination	18,025	3.3	162	959	3,174	5,523	8,204
Deployed - other	368	0.1	0	10	38	95	224
Not deployed	413,487	74.9	150	1,354	6,945	28,419	376,472
Not equipped	15,041	2.7	178	922	1,633	1,940	7,991
Unknown	47,957	8.7	46	122	264	761	6,706
Uncoded & Errors	6,681	1.2	0	0	7	9	47
TOTAL	552,102	100.0	808	5,032	18,558	49,225	429,261

*Includes 49,218 occupants (drivers and passengers) with unknown injury severity.

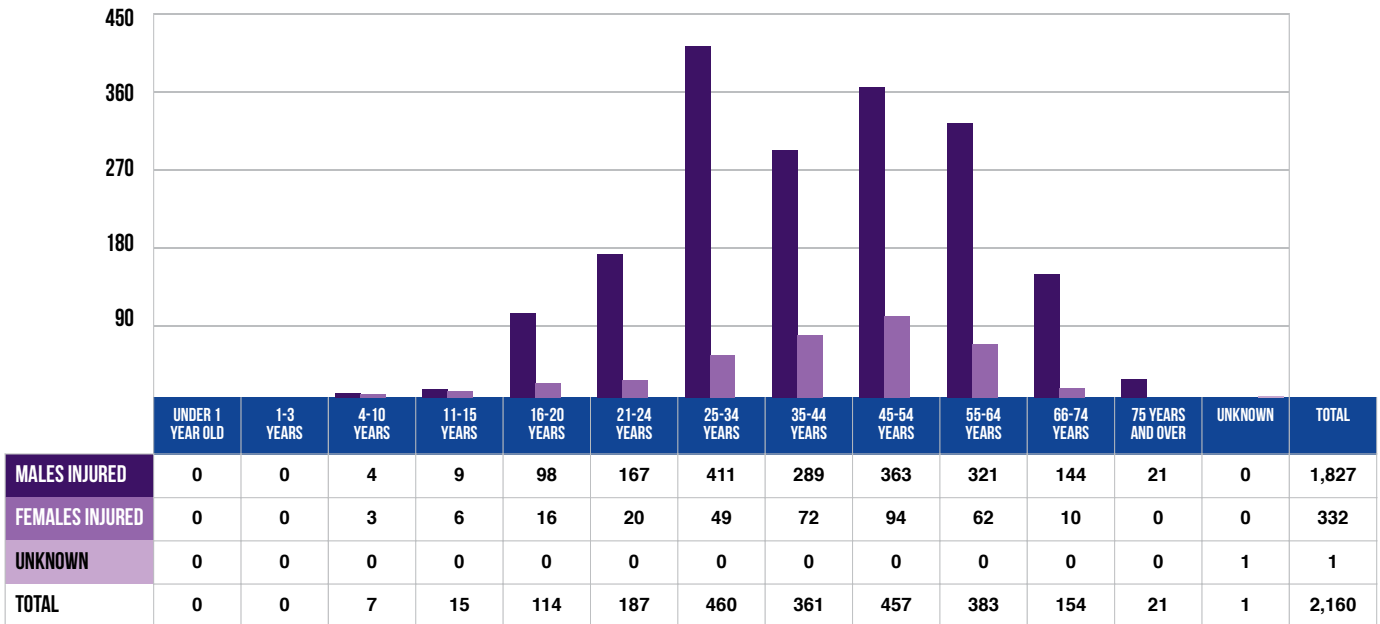
AGE AND GENDER OF MOTORCYCLISTS KILLED OR INJURED IN MOTOR VEHICLE CRASHES

MOTORCYCLISTS KILLED



Of the 134 motorcyclists killed in traffic crashes in 2018, 85.8 percent were male. In comparison, 67.0 percent of all occupants killed in crashes were male.

MOTORCYCLISTS INJURED



Of the 2,160 motorcyclists injured in traffic crashes in 2018, 84.6 percent were male. In comparison, 45.2 percent of all occupants injured in crashes were male.

MOTORCYCLE HELMET USAGE AND INJURY SEVERITY

AGE OF MOTORCYCLIST	FATALITIES	INJURY			NO INJURY
		A	B	C	
HELMET WORN					
3 years and under	0	0	0	0	0
4 - 10 years	0	1	1	2	3
11 - 15 years	0	2	3	6	1
16 - 20 years	2	16	48	27	29
21 - 24 years	7	42	70	29	53
25 - 34 years	18	74	143	84	88
35 - 44 years	9	46	98	53	56
45 - 54 years	11	94	115	61	85
55 - 64 years	18	79	115	58	79
65 - 74 years	12	30	57	27	40
75 years and over	1	3	8	3	5
Unknown	0	0	0	0	0
Subtotal	78	387	658	350	439
HELMET NOT WORN					
3 years and under	0	0	0	0	0
4 - 10 years	0	1	0	0	1
11 - 15 years	0	0	3	1	1
16 - 20 years	1	8	5	4	1
21 - 24 years	2	14	18	6	9
25 - 34 years	6	50	59	32	25
35 - 44 years	11	55	66	25	27
45 - 54 years	17	51	84	28	37
55 - 64 years	8	47	50	18	29
65 - 74 years	5	13	18	7	11
75 years and over	1	2	3	1	0
Unknown	0	0	0	0	0
Subtotal	51	241	306	122	141
HELMET USE UNKNOWN					
3 years and under	0	0	0	0	0
4 - 10 years	0	1	1	0	0
11 - 15 years	0	0	0	0	0
16 - 20 years	0	3	3	0	0
21 - 24 years	0	2	4	2	1
25 - 34 years	1	4	5	9	9
35 - 44 years	0	6	9	3	10
45 - 54 years	3	5	13	6	14
55 - 64 years	0	10	3	3	17
65 - 74 years	0	0	2	0	3
75 years and over	1	0	1	0	2
Unknown	0	0	0	0	0
Subtotal	5	31	41	23	56
TOTAL	134	659	1,005	495	636

2011 Michigan motor vehicle crash data represents the last full year of data that was collected during Michigan's universal helmet law, enacted in 1969: Michigan Vehicle Code Public Act 300 of 1949, Section 257.658, requiring all motorcycle riders to wear a helmet. On April 13, 2012, Michigan changed their helmet law from a universal to a partial helmet law. The partial law allows some certified Michigan riders, who are over 21 and carry additional insurance, to ride without a helmet.

HELMET WORN



DRIVERS KILLED: 71
PASSENGERS KILLED: 7

HELMET NOT WORN



DRIVERS KILLED: 45
PASSENGERS KILLED: 6

HELMET USE UNKNOWN



DRIVERS KILLED: 5
PASSENGERS KILLED: 0

OCCUPANT INJURY OUTCOME BY VEHICLE TYPE

VEHICLE	KILLED	INJURY			TOTAL KABC	% OF ALL CRASH INVOLVED KABC OCCUPANTS
		A	B	C		
Passenger car, SUV, van	557	3,577	15,148	43,732	63,014	85.6
Motor home	2	9	50	99	160	0.2
Pickup truck	78	505	1,664	3,809	6,056	8.2
Small Truck under 10,000 lbs. GVWR	1	13	65	148	227	0.3
Motorcycle	134	659	1,005	496	2,294	3.1
Moped/goped	5	58	161	90	314	0.4
Go-cart/golf cart	1	4	15	4	24	0.0
Snowmobile	0	20	15	15	50	0.1
Off-Road Vehicle - ORV/All-Terrain Vehicle - ATV	15	97	95	66	273	0.4
Other	3	12	44	89	148	0.2
Unknown	0	4	8	9	21	0.0
CDL Truck/Bus (breakdown below)	12	74	288	667	1,041	1.4
Total Number of Occupants	808	5,032	18,558	49,224	73,622	100.0

HEAVY TRUCK/BUS GROSS VEHICLE WEIGHT RATING	KILLED	INJURY			TOTAL KABC	% OF ALL CRASH INVOLVED KABC OCCUPANTS
		A	B	C		
10,000 lbs. or less	3	7	6	24	40	3.8
10,001 - 26,000 lbs.	1	12	77	187	277	26.6
Greater than 26,000 lbs.	8	55	204	453	720	69.2
Uncoded & Errors	0	0	1	3	4	0.4
Total Number of Occupants	12	74	288	667	1,041	100.0

Note:

1) School bus is not recorded on the UD-10 and cannot be broken out of CDL Truck/Bus.

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