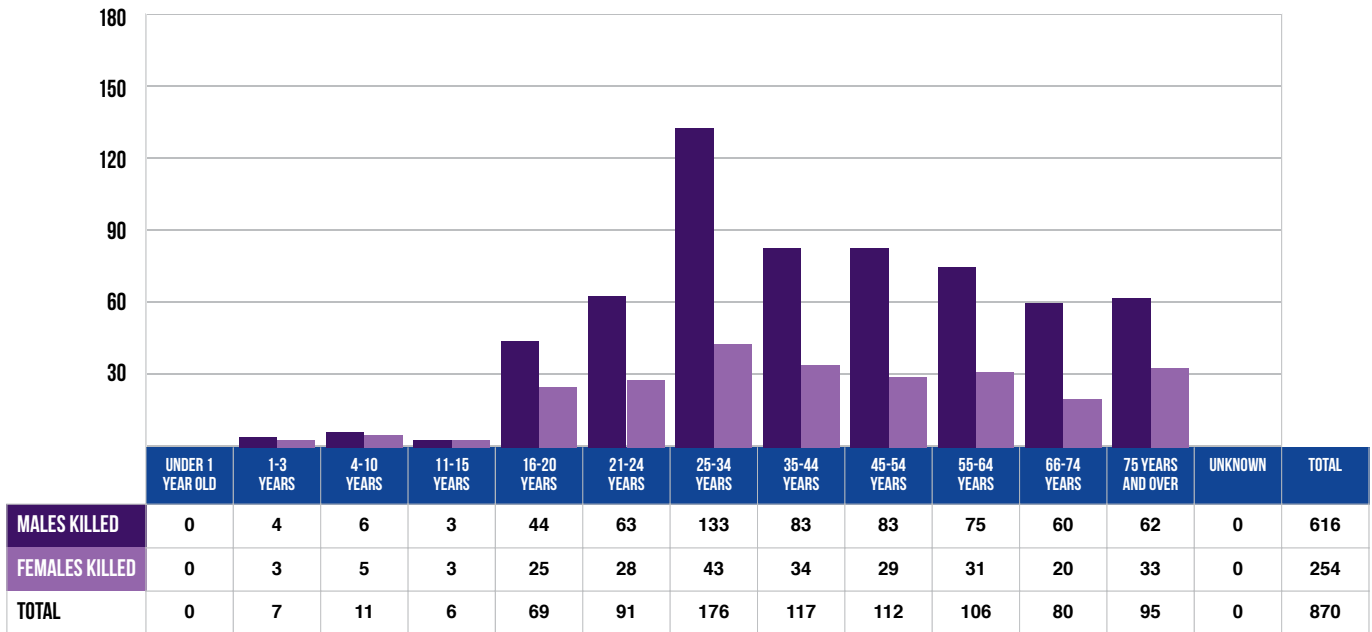


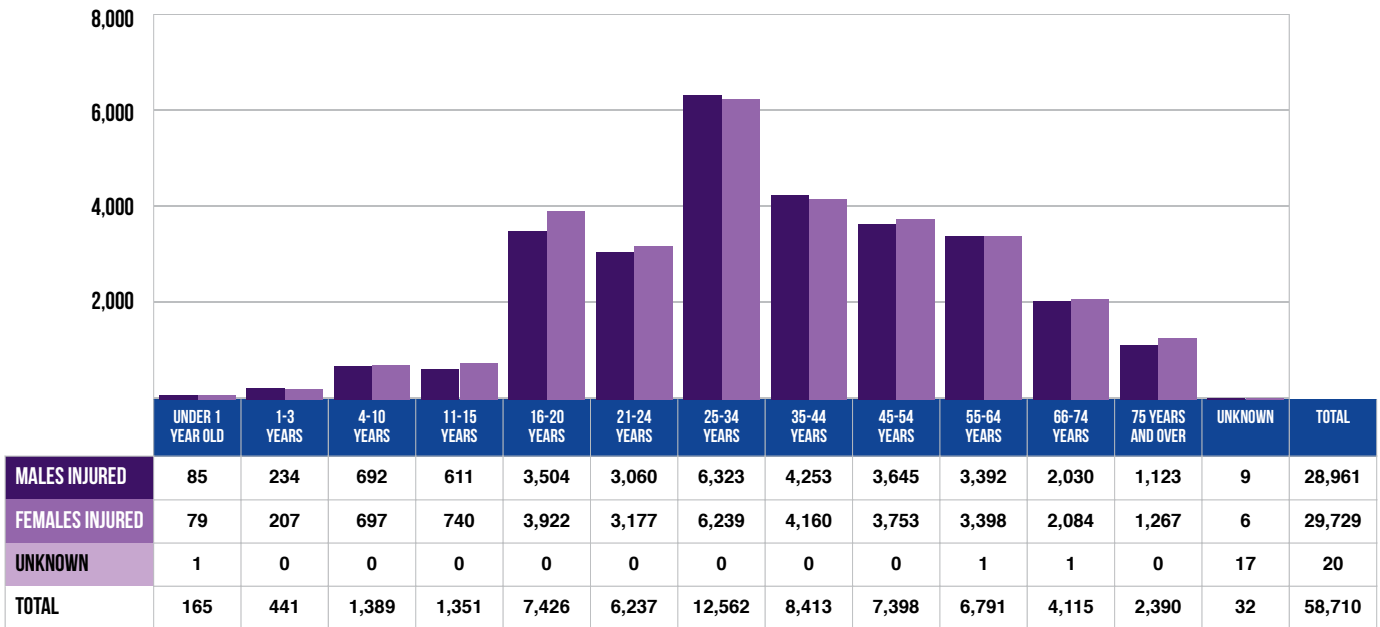
## AGE AND GENDER OF OCCUPANTS KILLED OR INJURED IN MOTOR VEHICLE CRASHES

### OCCUPANTS KILLED



The majority (70.8%) of occupants killed in traffic crashes in 2020 were male.

### OCCUPANTS INJURED



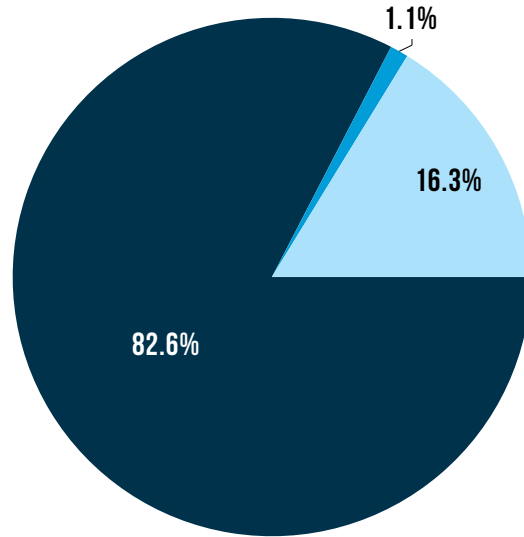
The majority (50.6%) of occupants injured in traffic crashes in 2020 were female.

*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

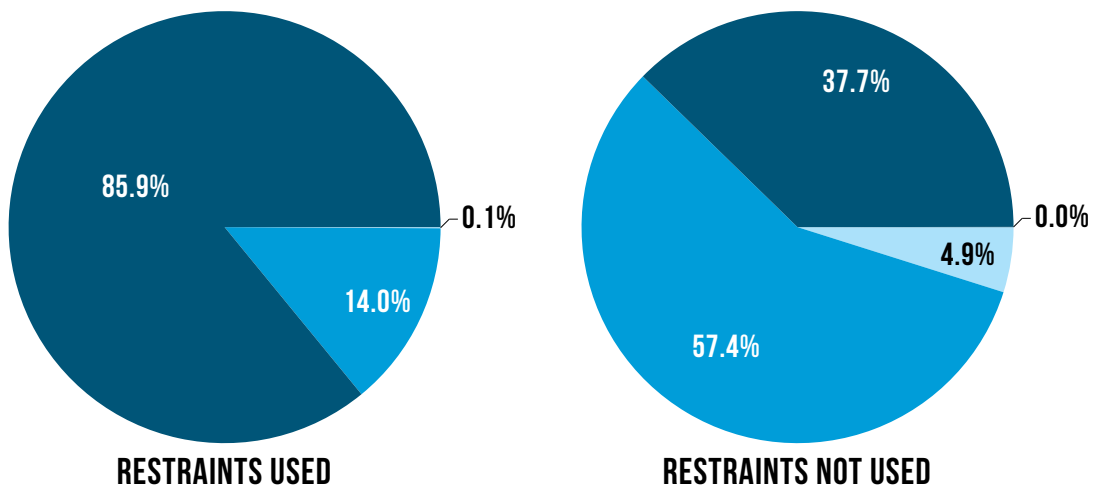
■ RESTRAINTS USED      ■ RESTRAINTS NOT USED      ■ UNKNOWN



Of the 414,740 drivers and injured passengers involved in crashes, 342,591 (82.6%) were REPORTED to be using occupant restraints.

## INJURY SEVERITY

■ FATAL      ■ INJURY      ■ NO INJURY      ■ UNKNOWN



Occupants in crashes were 56 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	330,813	96.8	227	2,080	10,277	24,476	293,753
Center Front	469	0.1	1	22	66	224	156
Right Front	7,753	2.3	60	412	1,591	5,295	395
Left Rear Second Seat	1,088	0.3	3	38	240	807	0
Center Rear Second Seat	151	0.0	1	9	38	103	0
Right Rear Second Seat	1,014	0.3	2	45	216	751	0
Left Rear Third Seat	157	0.0	0	10	35	112	0
Center Rear Third Seat	22	0.0	0	1	6	15	0
Right Rear Third Seat	89	0.0	0	5	21	63	0
Left Rear Fourth Seat	9	0.0	0	0	5	4	0
Center Rear Fourth Seat	6	0.0	0	0	0	6	0
Right Rear Fourth Seat	11	0.0	0	0	2	9	0
Other Passenger Area	24	0.0	0	0	5	19	0
Unknown	86	0.0	0	1	4	17	64
Uncoded & Errors	0	0.0	0	0	0	0	0
<b>TOTAL †</b>	<b>341,692</b>	<b>100.0</b>	<b>294</b>	<b>2,623</b>	<b>12,506</b>	<b>31,901</b>	<b>294,368</b>

\* 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.

SEATING POSITION	BELTS NOT USED *		FATAL	INJURY			NO INJURY
	Number	% of Total		A	B	C	
Left Front	3,182	68.1	179	432	529	512	1,530
Center Front	56	1.2	1	2	19	12	22
Right Front	466	10.0	28	93	176	149	20
Left Rear Second Seat	214	4.6	3	36	67	108	0
Center Rear Second Seat	62	1.3	3	6	20	33	0
Right Rear Second Seat	248	5.3	11	33	83	121	0
Left Rear Third Seat	32	0.7	1	4	3	24	0
Center Rear Third Seat	15	0.3	0	4	2	9	0
Right Rear Third Seat	28	0.6	0	7	8	13	0
Left Rear Fourth Seat	5	0.1	0	0	2	3	0
Center Rear Fourth Seat	2	0.0	0	1	0	1	0
Right Rear Fourth Seat	2	0.0	0	0	1	1	0
Other Passenger Area	104	2.2	0	12	21	71	0
Unknown	257	5.5	2	6	9	26	214
Uncoded & Errors	1	0.0	0	0	0	0	1
<b>TOTAL †</b>	<b>4,674</b>	<b>100.0</b>	<b>228</b>	<b>636</b>	<b>940</b>	<b>1,083</b>	<b>1,787</b>

\* 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 one occupant 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
<b>AGE 0</b>						
Belts Used	15	9.1	0	0	5	10
No Belts Used	2	1.2	0	0	1	1
Child Restraint Used - Forward Facing	18	11.0	0	0	1	17
Child Restraint Used - Rear Facing	109	66.5	0	4	12	93
Child Restraint Used - Booster Seat	3	1.8	0	0	1	2
Child Restraint Not Used	8	4.9	0	2	1	5
Restraint Failed	0	0.0	0	0	0	0
Unknown	9	5.5	0	0	2	7
<b>Total</b>	<b>164</b>	<b>100.0</b>	<b>0</b>	<b>6</b>	<b>23</b>	<b>135</b>
<b>AGE 1</b>						
Belts Used	8	6.3	0	0	1	7
No Belts Used	0	0.0	0	0	0	0
Child Restraint Used - Forward Facing	54	42.2	1	3	11	39
Child Restraint Used - Rear Facing	42	32.8	0	0	7	35
Child Restraint Used - Booster Seat	4	3.1	0	0	1	3
Child Restraint Not Used	6	4.7	0	1	2	3
Restraint Failed	1	0.8	0	0	0	1
Unknown	13	10.2	0	0	2	11
<b>Total</b>	<b>128</b>	<b>100.0</b>	<b>1</b>	<b>4</b>	<b>24</b>	<b>99</b>
<b>AGE 2</b>						
Belts Used	12	7.5	0	1	1	10
No Belts Used	6	3.8	1	0	3	2
Child Restraint Used - Forward Facing	90	56.6	0	4	17	69
Child Restraint Used - Rear Facing	19	11.9	0	0	7	12
Child Restraint Used - Booster Seat	8	5.0	0	0	2	6
Child Restraint Not Used	11	6.9	1	0	4	6
Restraint Failed	0	0.0	0	0	0	0
Unknown	13	8.2	2	1	2	8
<b>Total</b>	<b>159</b>	<b>100.0</b>	<b>4</b>	<b>6</b>	<b>36</b>	<b>113</b>

## REPORTED RESTRAINT USE - CHILDREN (CONTINUED)

RESTRAINT USAGE	CHILDREN		FATAL	INJURY		
	Number	% of Total		A	B	C
<b>AGE 3</b>						
Belts Used	25	15.7	0	2	6	17
No Belts Used	3	1.9	0	0	1	2
Child Restraint Used - Forward Facing	81	50.9	0	5	12	64
Child Restraint Used - Rear Facing	6	3.8	0	0	1	5
Child Restraint Used - Booster Seat	17	10.7	0	0	4	13
Child Restraint Not Used	11	6.9	2	3	0	6
Restraint Failed	0	0.0	0	0	0	0
Unknown	16	10.1	0	1	4	11
<b>Total</b>	<b>159</b>	<b>100.0</b>	<b>2</b>	<b>11</b>	<b>28</b>	<b>118</b>
<b>AGE 4-7</b>						
Belts Used	267	34.9	0	18	64	185
No Belts Used	30	3.9	1	5	11	13
Child Restraint Used - Forward Facing	211	27.6	1	4	47	159
Child Restraint Used - Rear Facing	6	0.8	0	0	2	4
Child Restraint Used - Booster Seat	157	20.5	2	4	35	116
Child Restraint Not Used	26	3.4	0	3	11	12
Restraint Failed	0	0.0	0	0	0	0
Unknown	68	8.9	2	6	11	49
<b>Total</b>	<b>765</b>	<b>100.0</b>	<b>6</b>	<b>40</b>	<b>181</b>	<b>538</b>
<b>AGE 8-15</b>						
Belts Used	1,458	78.9	4	48	353	1,053
No Belts Used	154	8.3	3	25	59	67
Child Restraint Used - Forward Facing	20	1.1	0	0	4	16
Child Restraint Used - Rear Facing	0	0.0	0	0	0	0
Child Restraint Used - Booster Seat	46	2.5	0	1	6	39
Child Restraint Not Used	5	0.3	0	0	2	3
Restraint Failed	0	0.0	0	0	0	0
Unknown	165	8.9	1	13	28	123
<b>Total</b>	<b>1,848</b>	<b>100.0</b>	<b>8</b>	<b>87</b>	<b>452</b>	<b>1,301</b>

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.*

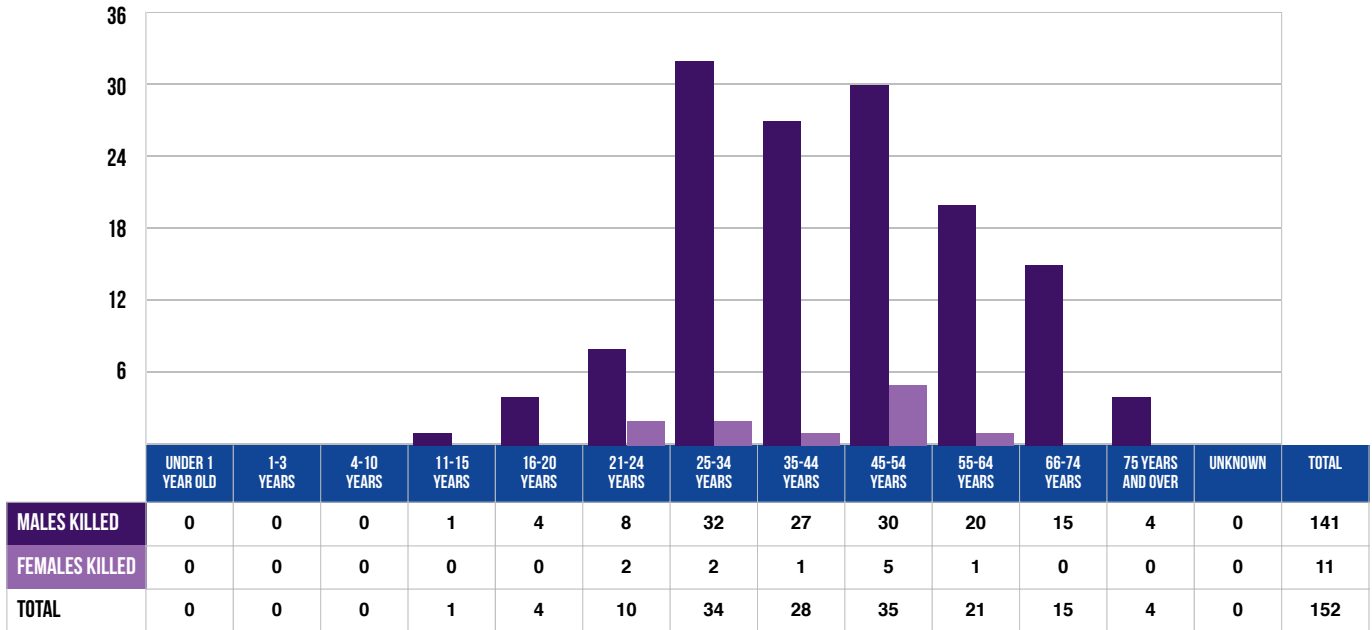
## MOTOR VEHICLE OCCUPANT INJURY SEVERITY BY KNOWN AIRBAG DEPLOYMENT

MOTOR VEHICLE OCCUPANT AIRBAG DEPLOYMENT	OCCUPANTS*		FATAL	OCCUPANT INJURY SEVERITY			NO INJURY
	Number	% of Total		A	B	C	
Deployed - front	33,594	8.0	191	1,201	4,382	8,013	19,806
Deployed - side	4,295	1.0	9	87	428	1,020	2,751
Deployed - curtain	3,071	0.7	8	84	355	774	1,850
Deployed - combination	21,927	5.2	240	1,218	3,748	6,424	10,296
Deployed - other	323	0.1	3	9	42	71	198
Not deployed	294,322	70.3	158	1,144	5,400	19,148	268,459
Not equipped	10,871	2.6	187	1,023	1,594	1,367	5,151
Unknown	44,990	10.7	74	153	263	754	5,506
Uncoded & Errors	5,480	1.3	0	0	3	5	1
<b>TOTAL</b>	<b>418,873</b>	<b>100.0</b>	<b>870</b>	<b>4,919</b>	<b>16,215</b>	<b>37,576</b>	<b>314,018</b>

\*Includes 45,275 occupants (drivers and passengers) with unknown injury severity.

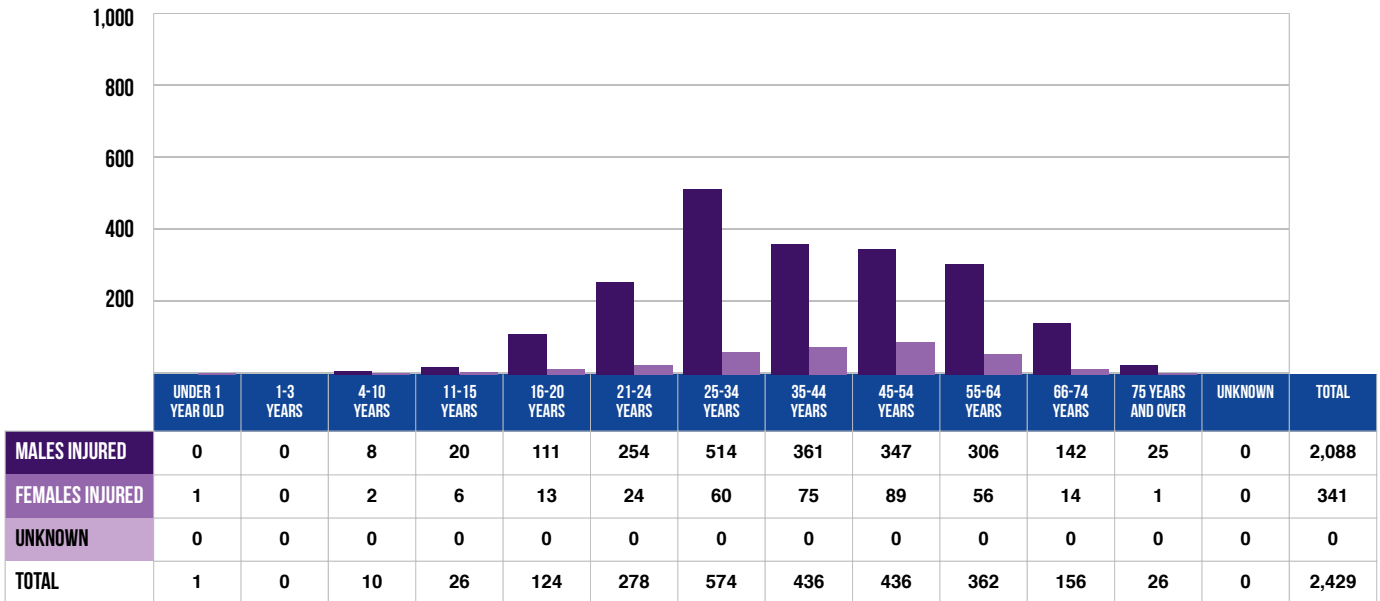
## AGE AND GENDER OF MOTORCYCLISTS KILLED OR INJURED IN MOTOR VEHICLE CRASHES

### MOTORCYCLISTS KILLED



Of the 152 motorcyclists killed in traffic crashes in 2020, 92.8 percent were male. In comparison, 70.8 percent of all occupants killed in crashes were male.

### MOTORCYCLISTS INJURED



Of the 2,429 motorcyclists injured in traffic crashes in 2020, 86.0 percent were male. In comparison, 49.3 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	
<b>HELMET WORN</b>					
3 years and under	0	1	0	0	0
4 - 10 years	0	0	4	3	2
11 - 15 years	0	4	7	3	3
16 - 20 years	1	18	48	21	17
21 - 24 years	7	58	104	39	43
25 - 34 years	15	85	139	77	98
35 - 44 years	8	64	85	54	41
45 - 54 years	20	73	98	60	82
55 - 64 years	10	65	103	61	71
65 - 74 years	10	33	54	30	38
75 years and over	1	8	7	3	5
Unknown	0	0	0	0	0
<b>Subtotal</b>	<b>72</b>	<b>409</b>	<b>649</b>	<b>351</b>	<b>400</b>
<b>HELMET NOT WORN</b>					
3 years and under	0	0	0	0	0
4 - 10 years	0	0	3	0	0
11 - 15 years	1	5	5	2	1
16 - 20 years	1	13	12	7	9
21 - 24 years	3	21	29	18	19
25 - 34 years	13	96	98	46	51
35 - 44 years	19	81	85	44	41
45 - 54 years	12	71	75	30	43
55 - 64 years	8	42	52	22	25
65 - 74 years	5	14	17	6	9
75 years and over	3	1	2	0	1
Unknown	0	0	0	0	0
<b>Subtotal</b>	<b>65</b>	<b>344</b>	<b>378</b>	<b>175</b>	<b>199</b>
<b>HELMET USE UNKNOWN</b>					
3 years and under	0	0	0	0	1
4 - 10 years	0	0	0	0	0
11 - 15 years	0	0	0	0	1
16 - 20 years	2	3	0	2	4
21 - 24 years	0	4	3	2	9
25 - 34 years	6	12	14	7	15
35 - 44 years	1	7	9	7	18
45 - 54 years	3	5	16	8	10
55 - 64 years	3	4	7	6	8
65 - 74 years	0	1	0	1	5
75 years and over	0	0	0	5	0
Unknown	0	0	0	0	1
<b>Subtotal</b>	<b>15</b>	<b>36</b>	<b>49</b>	<b>38</b>	<b>72</b>
<b>TOTAL</b>	<b>152</b>	<b>789</b>	<b>1,076</b>	<b>564</b>	<b>671</b>

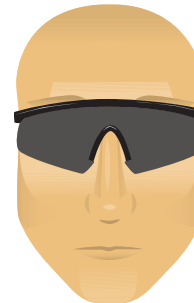
2011 Michigan motor vehicle crash data represents the last full year of data that was collected during Michigan's universal helmet law, enacted in 1969: Michigan Vehicle Code Public Act 300 of 1949, Section 257.658, requiring all motorcycle riders to wear a helmet. On April 13, 2012, Michigan changed 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: 68**  
**PASSENGERS KILLED: 4**

## HELMET NOT WORN



**DRIVERS KILLED: 63**  
**PASSENGERS KILLED: 2**

## HELMET USE UNKNOWN



**DRIVERS KILLED: 14**  
**PASSENGERS KILLED: 1**



## OCCUPANT INJURY OUTCOME BY VEHICLE TYPE

VEHICLE	KILLED	INJURY			TOTAL KABC	% OF ALL CRASH INVOLVED KABC OCCUPANTS
		A	B	C		
Passenger car, SUV, van	586	3,268	12,819	33,021	49,694	83.4
Motor home	0	21	36	56	113	0.2
Pickup truck	81	485	1,635	3,060	5,261	8.8
Small Truck under 10,000 lbs. GVWR	3	20	41	107	171	0.3
Motorcycle	152	789	1,076	564	2,581	4.3
Moped/goped	16	88	183	97	384	0.6
Go-cart/golf cart	0	11	24	14	49	0.1
Snowmobile	2	22	18	16	58	0.1
Off-Road Vehicle - ORV/All-Terrain Vehicle - ATV	15	146	156	79	396	0.7
Other	8	17	46	98	169	0.3
Uncoded & Errors	0	2	2	8	12	0.0
CDL Truck/Bus (breakdown below)	7	50	179	456	692	1.2
<b>Total Number of Occupants</b>	<b>870</b>	<b>4,919</b>	<b>16,215</b>	<b>37,576</b>	<b>59,580</b>	<b>100.0</b>

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	0	0	1	3	4	0.6
10,001 - 26,000 lbs.	1	15	68	171	255	36.8
Greater than 26,000 lbs.	6	35	110	282	433	62.6
Uncoded & Errors	0	0	0	0	0	0.0
<b>Total Number of Occupants</b>	<b>7</b>	<b>50</b>	<b>179</b>	<b>456</b>	<b>692</b>	<b>100.0</b>

*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.