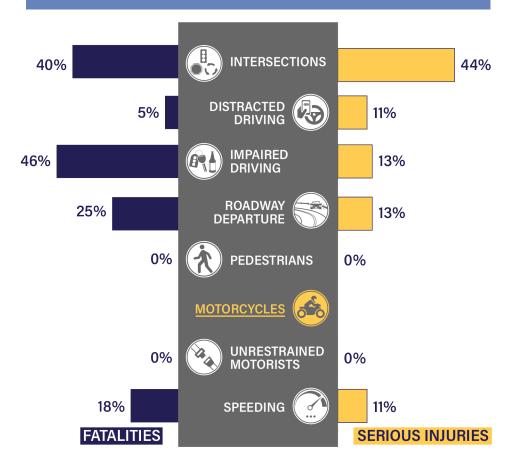


In 2019, the death rate for motorcyclists was 9.1 per 10,000 registrations, whereas the death rate for all registered vehicles was 1.4. Compared to passenger vehicles, motorcycles tend to be more difficult to operate, are less visible to other motorists on the roadway, provide virtually no protection to their riders (particularly when riders are not wearing helmets), and are capable of traveling at high speeds; therefore, motorcyclists are susceptible to greater injury when involved in a crash. Nearly one out of every four motorcycle fatalities or serious injuries result from roadway departure crashes. Motorcyclists account for 13 percent of all fatalities and 12 percent of all serious injuries from 2015 through 2019.



Motorcycle operators are required to obtain a special endorsement on their driver's license by passing both a written exam and a road skills test or by completing the approved motorcycle rider education program. Law enforcement may impound motorcycles of riders who are driving without a motorcycle endorsement. Delaware's helmet law requires all motorcycle riders to have a helmet in their possession; however, only requires those under the age of 19 to wear a helmet when riding. Strategies to address motorcycle safety typically involve education and enforcement countermeasures, aimed at operator safety and awareness of motorcycles by other drivers.

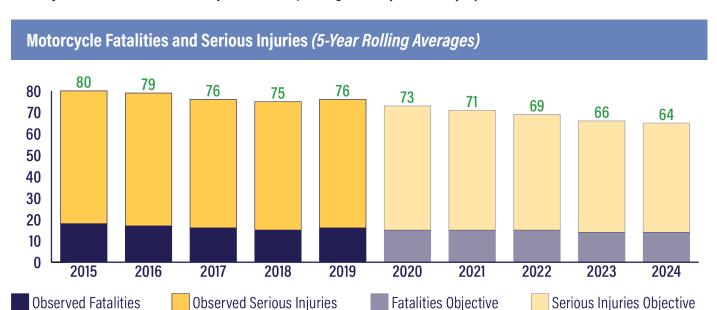
# Motorcycles Emphasis Area Overlap with Other Emphasis Areas (2015-2019 Crashes)





# Crash Data Summary (2015-2019)

Motorcycle Crash Definition: Motorcycle drivers or passengers fatally or seriously injured.

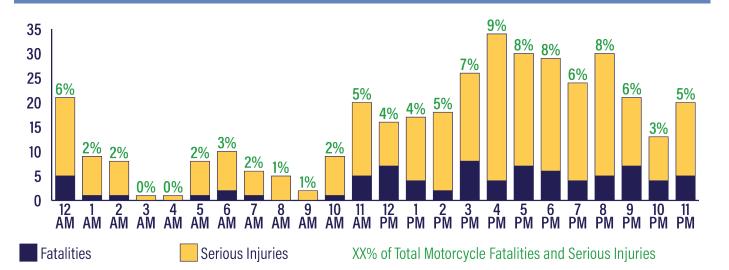


XXX Combined Fatalities and Serious Injuries

#### **Age/Gender of Crash Victim** 12% **Female** 120 29% 100 80 17% 16% 16% 60 88% Male 40 6% 20 3% 3% 2% 1% 0 Male Female Male F Male Female 20-29 30-39 40-49 50-59 60-69 0-9 10-19 70-79 80-89 90-99 Fatalities Serious Injuries XX% of Total Motorcycle Fatalities and Serious Injuries



## When?



	12 AM	1 AM	2 AM	3 AM	4 AM	5 <b>AM</b>	6 <b>AM</b>	7 <b>AM</b>	8 <b>AM</b>	9 <b>AM</b>	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 <b>PM</b>	10 PM	11 PM	Total
Sunday	7	3	2		1		1	1	1	1		7	4	2	5	4	8	7	9	2	5	5	1	1	77
Monday	4		2			1	1						1	1	1	6	5	4	3		3		2	2	36
Tuesday	1					2	4	1	4		1	1	1	4	3	1	5	2	6	3	2	2	1		44
Wednesday	2						1	2			3	1	3	1		6	2	7	3	1	1	3	2	1	39
Thursday	2	1	1				1	2				3			2	1	5	1	6	3	3	6	2		39
Friday	3	1	3			2	2			1		3	4	7	2	3	1	4		8	9	2	2	7	64
Saturday	2	4		1		3					5	5	3	2	5	5	8	5	2	7	7	3	3	9	79
Total	21	9	8	1	1	8	10	6	5	2	9	20	16	17	18	26	34	30	29	24	30	21	13	20	378

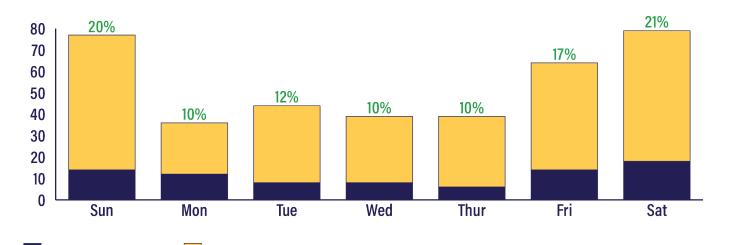
XX Motorcycle Fatalities and Serious Injuries during Day of Week and Hour of Day

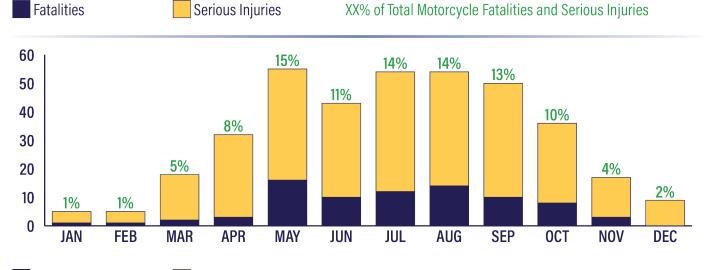
Lower Frequency Higher Frequency



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#### When?





Fatalities Serious Injuries XX% of Total Motorcycle Fatalities and Serious Injuries

# **2015 to 2019 Motorcycle Fatalities & Serious Injuries**

- 88% were male
- 77% occurred from May through October
- 58% occurred on a Friday, Saturday or Sunday
- 46% occurred between 3 PM and 9 PM
- 40% occurred on divided roadways
- 37% were not wearing a helmet
- 35% were in single-vehicle crashes
- 31% were 20 to 29 years old
- 29% occurred on principal arterial roadways
- 24% occurred within a horizontal curve

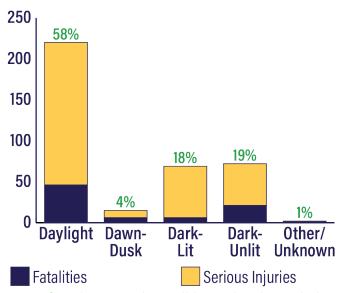


## **Surface Condition**

#### 400 96% 350 300 250 200 150 100 50 3% 1% 0% 0 Dry Wet Snow/Ice/ Other/ **Frost** Unknown Fatalities Serious Injuries

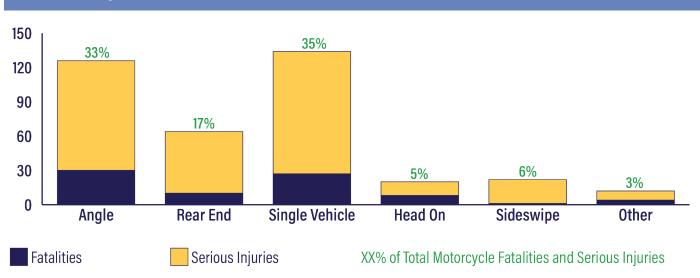
XX% of Total Motorcycle Fatalities and Serious Injuries

# **Lighting Condition**



XX% of Total Motorcycle Fatalities and Serious Injuries

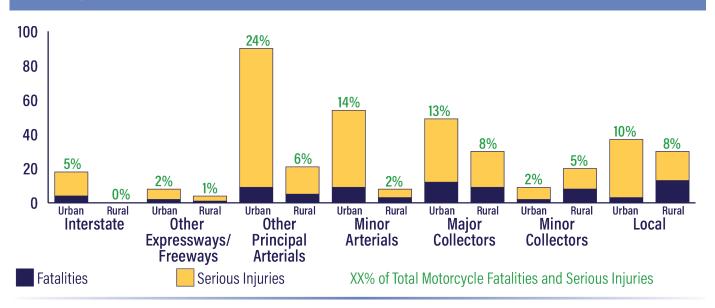
# **Manner of Impact**



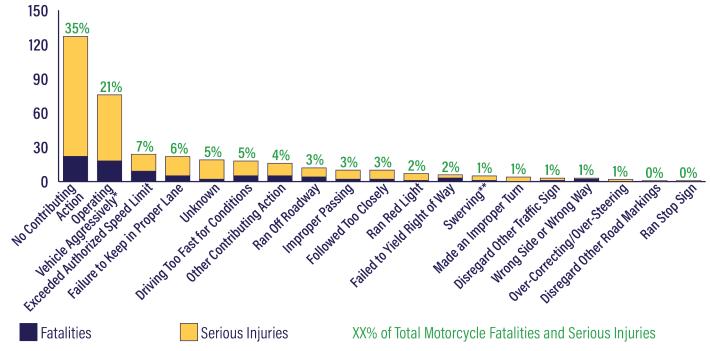


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## **Roadway Functional Classification**



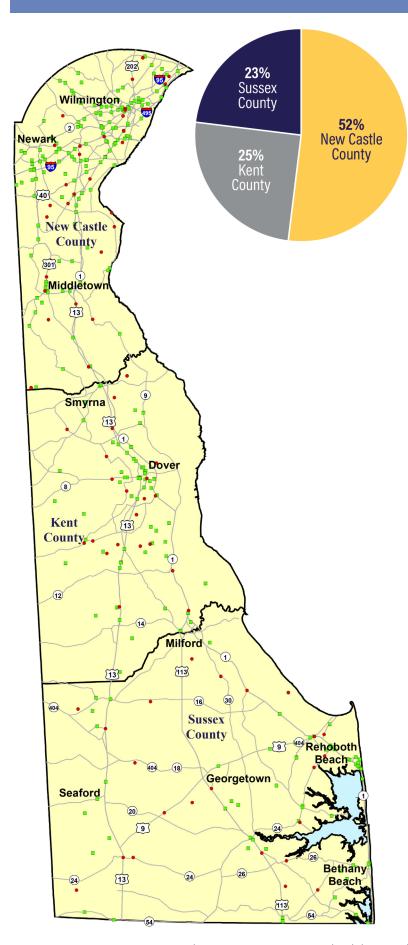
## **Driver Contributing Circumstance**



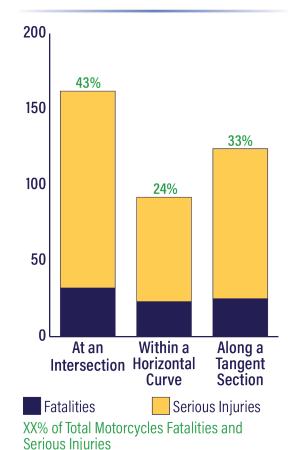
<sup>\*</sup> Operating vehicle in erratic, reckless, careless, negligent or aggressive manner

<sup>\*\*</sup> Swerving or avoiding due to wind, slippery surface, vehicle, object, non-motorist in roadway, etc.

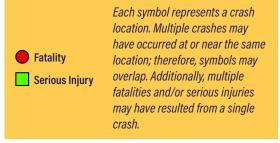




44% of motorcyclists fatally injured were impaired







# **Emphasis Area Strategies: Motorcycles**



Strategy 1: Develop and distribute consistent public information messages to increase public awareness of motorcycle safety.

- 1.1 Promote the use of reflective and personal protective equipment (PPE), including helmet use.
- 1.2 Provide targeted safety public awareness campaigns directed at impaired motorcyclists.
- 1.3 Provide targeted motorcycle safety public awareness campaigns during specific holiday periods and in targeted areas.
- 1.4 Provide targeted motorcycle safety public awareness campaigns directed at motor vehicle blind spots and checking for motorcycles.
- 1.5 Increase the number of motorcycle safety course/endorsement course instructors available within the state.
- 1.6 Promote the sharing of information regarding crash locations, roadway characteristics, and hazards regarding potential problems for motorcyclists.
- 1.7 Conduct surveys of motorcyclists to better understand trends with personal protective equipment (PPE) use, general motorcycle operation and interaction with other traffic.



Strategy 2: Strengthen motorcycle safety enforcement programs.

2.1 Conduct targeted high-visibility enforcement campaigns to reduce motorcycle crashes.



Strategy 3: Support legislative action to strengthen motorcycle safety, including endorsement laws and motorcycle enforcement efforts.

- 3.1 Support the enactment of a universal motorcycle helmet law.
- 3.2 Investigate the feasibility of enacting a graduated motorcycle helmet law, similar to that of the graduated driver licensing requirements.
- 3.3 Examine penalties related to operating a motorcycle without an endorsement and consider enhancing the penalties similar to that of operating a motor vehicle without a license.
- 3.4 Research the use of ignition interlock devices (IID) and motorcycle-specific requirements to determine device availability and determine if there is a tendency to circumvent the IID law.
- 3.5 Review regulations regarding temporary motorcycle permits and motorcycle endorsements to evaluate potential contradictions between the two.



Strategy 4: Improve infrastructure and consider motorcycles when installing improvements.

- 4.1 Investigate and research roadside safety hardware best practices to reduce the severity of motorcycle crashes involving existing roadside hardware.
- 4.2 Educate the highway engineering and maintenance workforce on roadway conditions that may be hazardous to motorcycles.