



## **In Fatal Motorcycle Crashes The Motorcycle Is Almost Always The Striking Vehicle!**

Anecdotal stories promote the myth that other drivers commonly rear-end motorcycles. We can measure rear end collisions and determine if this myth is false. In Oregon during 2015, ODOT reported:

Motorcyclist fatalities: 61

Motorcyclist fatalities involving rear end strikes: 4

Rear end collisions where the motorcycle struck the vehicle in front: 4

Result: number of fatalities where the motorcycle was struck from behind: 0 (none)

**It is rare that a fatal motorcycle crash occurs with the car rear-ending the motorcycle.**

Anecdotal stories also blaming other drivers for running into motorcyclists can be shown to be false. For example, here is the data from Oregon for Fatal Motorcycle Crashes 2012-2014 (Oregon Data supplied by Oregon Department Of Transportation (ODOT)):

Total Motorcyclists Fatally Injured = 124

Single Vehicle Crashes = 69 (motorcycle alone, striking fixed object or roadway)

Total Vehicle to Vehicle Collisions = 55

Motorcycle was striking vehicle = 46

Striking Vehicle was another motorcycle striking the motorcycle = 5

Other Vehicle was not a motorcycle striking the motorcycle = 4

Therefore, the motorcycle was the striking vehicle  $124 - 4 = 120$

**Result: 120 out of 124 (97%) of the motorcyclist fatalities in Oregon had crashes where a motorcycle was the striking vehicle.**

**More USA Data:** Reports from the Insurance Institute for Highway Safety (IIHS), strongly support the data from Oregon. From the Status Report of the IIHS, Vol. 52, No. 7, October 19, 2017, Eric Teoh, the Institute's senior statistician, evaluated two-vehicle crashes between a motorcycle and a passenger vehicle that occurred on U.S. roads during 2011-2015. Teoh was concerned about three types of crash avoidance technology: front crash prevention, which includes forward collision warning and automatic emergency braking; lane maintenance, which includes lane departure warning and lane-keeping support; and blind spot detection. "Teoh used data from the federal government's Fatality Analysis Reporting System (FARS) and the National Automotive Sampling System – General Estimates System ... Teoh estimated that front crash prevention would have been relevant to 4 percent of fatal motorcycle crashes, 10 percent of nonfatal crashes with injuries and 13 percent of police-reported crashes during the period."

**MOTORCYCLES (almost always) ARE THE STRIKING VEHICLE, CARS (typically) DO NOT STRIKE MOTORCYCLES!** NMI notes that the IIHS study, spanning the five most recent years, shows that in an **incredible 96% of USA fatal motorcycle crashes, the motorcycle was the striking vehicle** (including single vehicle crashes). Even if the costly strategy of requiring all other vehicles to have automation that detects and avoids motorcycles was implemented, and the technology was 100% effective, motorcycle crash fatalities would have only been reduced by 4%.

Therefore we recommend other, more effective countermeasures described on our website, [www.MotorcycleInstitute.org](http://www.MotorcycleInstitute.org), to reduce motorcycle crash fatality counts.