

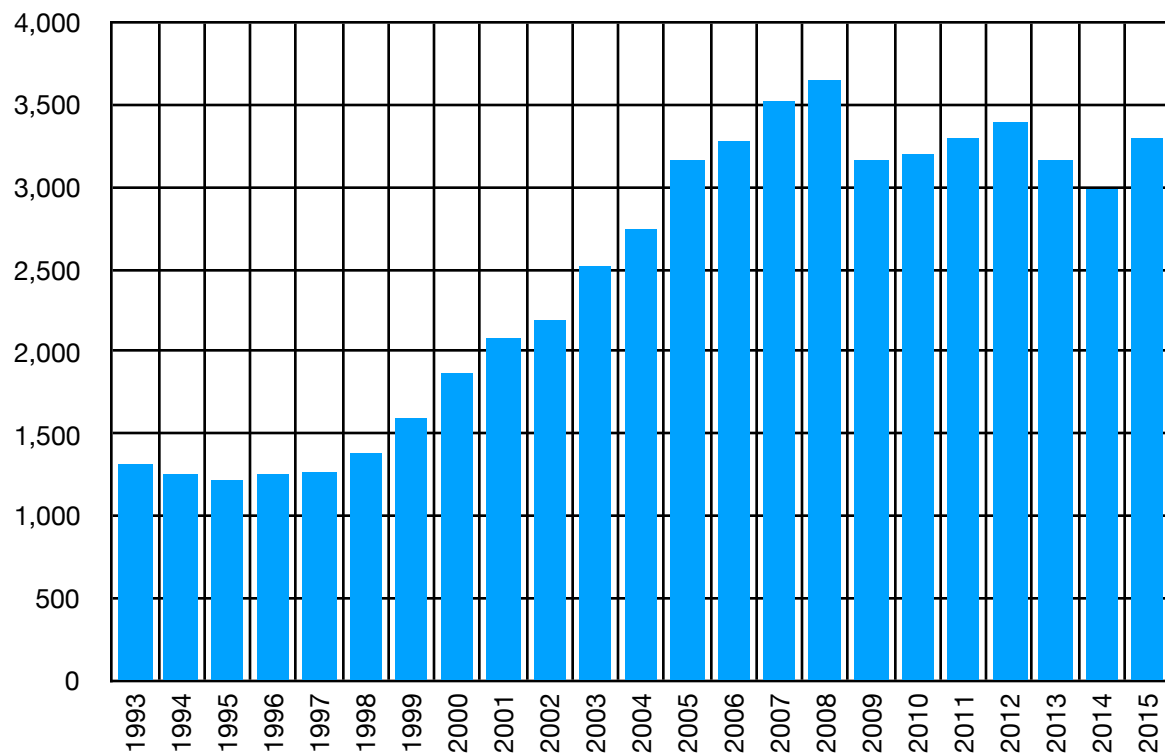
It is Time to Change Rider Education to Focus on Mental Qualities, Emphasizing Respect and Judgment

By Joe Elliott, NMI Scientist, Motorcyclist, and SMSA “data guy.”

The National Motorcycle Institute (NMI) is a Charitable 501(c)(3) Public Benefit Organization.

For the past 25 years, the central focus of motorcycle safety in the USA has been on license endorsement, personal protective equipment, conspicuity, and the physical skills training of braking, cornering, and swerving. The results of this focus have been not merely disappointing, but arguably catastrophic. I am able to directly query the Fatal Accident Reporting System (FARS) database to obtain scientifically correct statistics. The most recent results based directly on FARS data shows that motorcycle drivers, with a license that was both endorsed for motorcycles and valid (i.e. not suspended or expired), dominate motorcycle crash fatalities. The fatality count in this group has more than doubled since the 1990s.

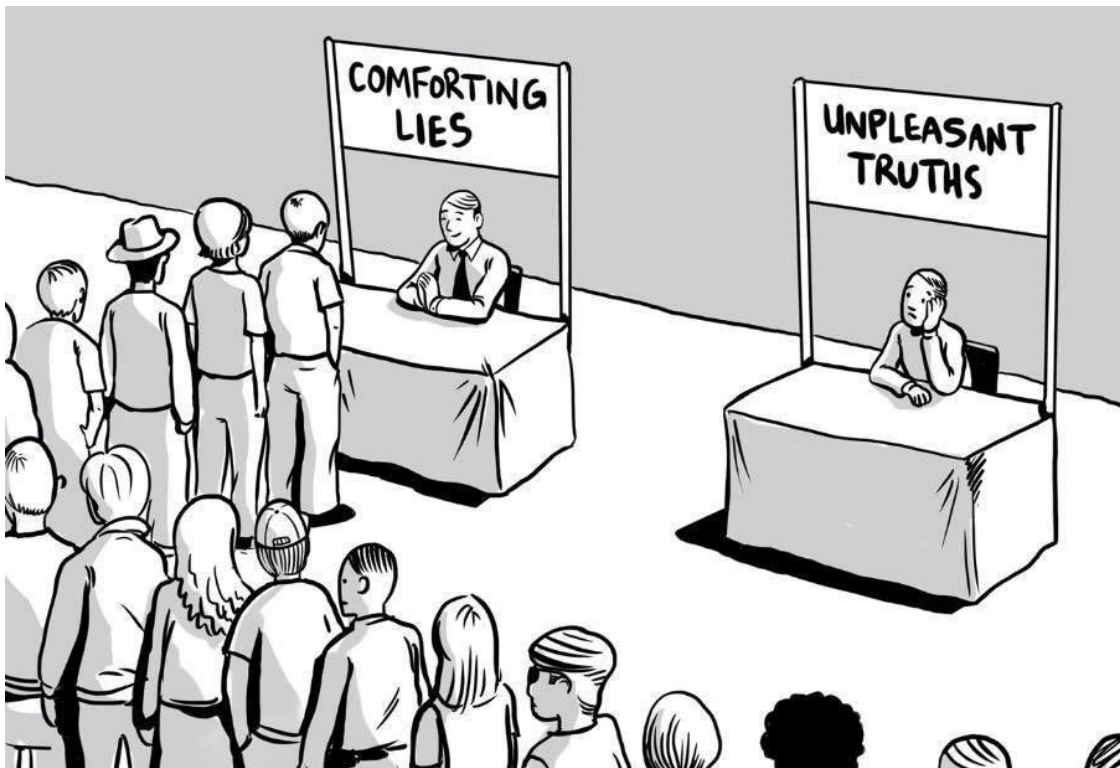
USA Endorsed (excluding suspended/expired) Motorcycle Driver Fatality Count



Source: NHTSA Fatality Analysis Reporting System (FARS)

To put this in perspective, let's compare motorcyclists to persons riding in cars (motorists). A motorcyclist in the USA in 2014 was 38 times more likely to be killed than a person riding in a car, mile for mile. Let's be clear that this is not 38 percent, but 3,800 percent. Even if we just simply compare the fatalities per vehicle (motorcycle to car) the factor is 27 times more likely to die per vehicle. This apparent "reduction" from 38 times to 27 times is because there are, on average, more people in cars, per vehicle, than on motorcycles. Not only have our "safety" tactics failed to prevent motorcyclist fatalities, the fatality count has been dramatically increasing. So, my question is: "What could reduce the motorcyclist fatality count?" If we intend to bring about a real reduction in the fatality count, we need to gain more understanding of, and be sure to use, accurate data.

We would like to believe that motorcycle drivers with a compliant motorcycle endorsement, and valid status (not suspended or expired), are less likely to crash than other motorcycle drivers. The inconvenient truth is that in the vast majority of motorcycle crashes, the motorcycle driver has both a compliant endorsement and valid status. Getting more motorcycle drivers endorsed (who



can legally be endorsed) has not had any measurable effect on fatalities - other than more dead motorcycle drivers having a compliant endorsement. We've gotten more motorcycle drivers endorsed, and fatalities continue to rise. And this fatality issue becomes even more disturbing when we include fatally injured motorcycle drivers who possessed motorcycle endorsements but were not properly (valid) licensed due to suspensions and expirations.

Personal protective equipment has done very little to slow the national motorcyclist fatality rates. We have (correctly) believed that protective gear (especially a high-quality, properly fitting, approved helmet) will reduce the potential for fatal injuries, but based on the FARS numbers, the advantage is disappointingly small. The “elephant in the room” is that the kinetic energy of body organs causes them to self-destruct internally during a sudden impact. Protective gear certainly helps reduce non-fatal external injuries, but can’t prevent internal organs, including the brain, from self-destructing. This means that if you go to the morgue, you can easily tell which dead motorcyclists were wearing protective equipment, and which were not.

Conspicuity has been hyped as a golden bullet ever since the Hurt Report of 1981. Conspicuity is intended to capture the attention of other drivers, with the intent of causing them to stay out of the way of the motorcyclist. But psychological quirks (that have been discovered since the 1980s), especially “inattention blindness”, explain why about half of drivers won’t see something even if it’s dramatically conspicuous, and that applies to motorcycle drivers sometimes not seeing what they should, too. Besides motorcycle lights that are in good operational order as specified by vehicle codes, attempts to be more conspicuous have not caused any measurable reduction in crashes or fatalities. And while our “shade tree” wisdom may be that car drivers are the culprits in most motorcyclist crashes, the truth is that the motorcycle crashes into something else in 97 percent of all fatal incidents (i.e. the motorcycle is the striking vehicle). Almost half of fatal motorcycle crashes are single vehicle, where conspicuity can’t have any effect. There is a near universal lack of understanding that it is **Inattention Blindness by the motorcyclist driver** that is a major contributor when the motorcycle driver crashes into other vehicles, and not an issue of conspicuity.

One definition of “insanity” is doing the same thing over and over again, and expecting different results. It is time for us trainers to stop doing the same thing over and over again, after 25 years of getting the same discouraging results. Based on current models, we can predict that the motorcycle crash fatality results for 2017 will turn out to be just as bad as 2015. Urgently, we need to do more than just repeat the failed tactics and expect a drop in fatalities. May I suggest that it is time to change training from the old physical skills emphasis to an approach that focuses on mental qualities, especially respect and judgment.

In my opinion, a motorcycle driver of average skill, driving carefully, will experience less danger than a skillful motorcycle driver being careless. On public roads, “careful” beats “careless” every time, no matter the licensing status and endorsement, protective gear, conspicuity, or physical skill level! And that concept is key to reducing the fatality count.

We trainers can change the focus from physical training (braking, cornering, swerving) to improving mental qualities that develop respect and judgment.

RESPECT: Courses that help students learn to reduce mishaps focus the students on their understanding of, and:

Respect for the danger of riding upon motorcycles on public roads.

Respect for the motorcycle.

Respect for the situation, meaning:

- Riding within the posted and suggested speeds.
- Being courteous to ALL other roadway users.
- Understanding how the roadway system is designed and engineered.
- Remembering that public roads are intended for transportation, not for sport or recreating while driving the vehicle-in-transport.

Judgment: Courses that help students learn to reduce mishaps by using better judgment to choose:

- To ride alert, healthy, and unimpaired.
- When to “opt-out” of the ride. (If, in your judgment it’s time to opt-out, and you discontinue that ride, you then can’t be injured in a motorcycle crash on that ride.)
- The appropriate venue for aggressive riding. Rather than taking an aggressive machine out onto public roads to have fun, it would be less dangerous to trailer a sportbike to the track, or to transport an off-road bike to an OHV area and then recreate.

Scientifically, if we trainers continue the same old physical skills approach, we will see the same catastrophic motorcyclists fatality results. If trainers change to the new approach, focusing students on mental qualities such as respect and judgment, motorcyclist fatalities will decrease. It is time to change.

Notes for “Data Experts”

- Car Occupants, including both drivers and passengers riding in passenger vehicles, are called “Motorists.”
- Motorcycle Occupants, including both drivers and passengers riding upon motorcycles, are called “Motorcyclists.”
- Motorist, Car Driver, and Car Crash fatally injured persons are the comparison groups for Motorcyclist, Motorcycle Driver, and Motorcycle Crash fatally injured persons.
- Motorcycle Crash Fatalities include both motorcyclists and others fatally injured in motorcycle crashes, such as pedestrians.
- Motorcyclist Danger is per Person (Motorcyclist) Miles-Traveled.
- Motorcycle Driver Danger is per Vehicle (Motorcycle) Miles-Traveled. (One Driver per Vehicle, for now.)
- Motorcycle Societal Danger is Motorcycle Crash Fatalities (everybody killed) per Population (everybody).

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