



**Testimony on LB 31
Before the Transportation and Telecommunication Committee
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Good afternoon Senator Smith and members of the Transportation and Telecommunication Committee. For the record my name is Brad B-R-A-D Meurrens, M-E-U-R-R-E-N-S, and I am the Public Policy Specialist for Disability Rights Nebraska. We are the designated Protection and Advocacy organization for persons with disabilities in Nebraska. Under the federal Protection and Advocacy for Traumatic Brain Injury Act we provide legal and other advocacy services to persons with traumatic brain injury. I am here today to testify in opposition to LB 31.

Unequivocally, relaxing or repealing Nebraska's helmet law is bad public policy. If passed it would reverse decades of low injury and fatality rates for Nebraska's motorcyclists. The research and empirical data demonstrate with a preponderance of the evidence that brain injuries and fatalities increase when helmet laws are relaxed or repealed.

The data from studies done nationally^{1,2} and in Florida³, Arkansas⁴, Texas, Kentucky⁵, Louisiana⁶, and Pennsylvania⁷ is clear: it consistently shows both motorcyclist fatalities and head injuries increased shortly after those states enacted legislation to weaken or repeal helmet laws. A continued rise in fatalities and injuries forced Louisiana to **reinstate** their universal helmet law in 2004⁸, with declines in fatalities and injuries since. The National Highway and Traffic Safety Administration reports⁹ that data from Oregon, Washington, California, and Maryland show significant decreases in fatalities

¹ <http://www.sciencedaily.com/releases/2008/03/080331172511.htm>

² http://www.nts.gov/recs/letters/2007/h07_39.pdf

³ <http://www.nhtsa.dot.gov/people/injury/pedbimot/motorcycle/FlaMCReport/pages/Index.htm>

⁴ <http://www.nhtsa.dot.gov/people/injury/pedbimot/motorcycle/EvalofMotor.pdf>

⁵ <http://www.nhtsa.dot.gov/people/injury/pedbimot/motorcycle/kentuky-la03/TechSumm.html>

⁶ Ibid.

⁷ <http://www.wpxi.com/health/16591124/detail.html>

⁸ http://www.nts.gov/recs/letters/2007/h07_39.pdf

⁹ <http://www.nhtsa.dot.gov/people/injury/New-fact-sheet03/MotorcycleHelmet.pdf>.

and injuries resulting from their respective helmet laws. Florida hospital discharge data shows that in the 30 months immediately following their helmet law change, head injury admissions increased by more than 80 percent. Total gross costs charged to hospital-admitted motorcyclists with head, brain or skull injury more than doubled.¹⁰

Michigan revised their Helmet Law in 2012. Under the 2012 law, riders 21 and older may ride without a helmet if they have passed a safety course or ridden at least two years. They are required to carry \$20,000 in medical insurance. The law before repeal – in place since 1969 – required all riders to wear a helmet. Michigan has seen an increase in injuries, fatalities, and medical expenses after their roll-back of their universal helmet law:

“The numbers underscore what law-enforcement and medical data have shown for years – that riders without helmets are more likely to die or suffer serious injuries in a crash than riders who wear helmets.

According to updated Michigan State Police data, roughly one-fourth of motorcyclists in Michigan now ride without a helmet. But helmetless riders accounted for nearly one-half of motorcycle fatalities in 2013, 59 of 128 deaths.

A longer-term study of crash and injury data by the University of Michigan Transportation Research Institute found that reduced helmet use accounts for approximately 24 more deaths and 71 more serious injuries a year in Michigan. The study looked at 15,000 crashes from 2009 through 2013, and calculated that the risk of fatality is 2.8 times higher for riders not wearing a helmet, while the risk of serious injury is 1.4 times higher, largely echoing studies in other states.

‘Non-helmeted motorcyclists more frequently died on the scene, spent more time in the intensive care unit, required longer ventilator support, and had higher medical costs,’ concluded a third study, by Spectrum Health Butterworth Hospital in Grand Rapids.

The hospital study, of 192 injured motorcyclists, noted that medical expenses for injured helmetless riders averaged \$32,700, compared with \$21,300 for those wearing helmets.”

¹⁰ <http://www.nhtsa.dot.gov/people/injury/pedbimot/motorcycle/FlaMCReport/pages/Index.htm>

The Governors Highway Safety Association reports in 2013¹¹ that:

“Helmets are by far the single most effective strategy to prevent motorcyclist fatalities and serious injuries in a crash. Helmets are 37% effective in preventing fatal injuries to motorcycle operators and 41% effective for passengers. NHTSA estimates that helmets saved the lives of 1,617 motorcyclists in 2011. If all motorcyclists had worn helmets, an additional 703 lives could have been saved”. (p. 18)

“A universal helmet law is the only motorcycle safety strategy whose effectiveness is rated as five-star (“demonstrated to be effective by several high-quality evaluations with consistent results”) in Countermeasures That Work (CMTW), NHTSA’s guide for states (NHTSA, 2013d, Section 5). Similarly, increasing the use of helmets is the only motorcycle safety strategy rated as proven in the American Association of State Highway and Transportation Officials (AASHTO) Guide for Addressing Collisions Involving Motorcycles (Potts et al., 2008, Strategy 11.1E1) and the only strategy rated “scientifically proven” in the Centers for Disease Control and Prevention’s publication, Motorcycle Safety (CDC, 2011). Most recently, GAO reviewed nine high-quality studies, all of which concluded that universal helmet laws significantly decrease motorcyclist fatalities. GAO concluded that “laws requiring all motorcyclists to wear helmets are the only strategy proven to be effective in reducing fatalities” (GAO, 2012, p. 16).” (p. 18)

“Most recently, Michigan repealed its universal helmet law as of April 12, 2012. Two recent studies document the results. Barrette et al. (2014) compared Michigan crash data from April 13 through December 31 of 2011 and 2012. They concluded that helmet use among crash-involved motorcyclists dropped from 94% to 72% while incapacitating injuries and fatalities both increased by 11%. Chapman et al. (2014) compared motorcyclists admitted to a level-1 trauma center in West Michigan during seven-month periods before and after the repeal. They concluded that the proportion of non-helmeted motorcyclists rose from 7% to 29%. Intensive care unit length of stay and patient costs were higher for non-helmeted motorcyclists.” (p. 19)

“NHTSA contrasted motorcyclist fatalities in states with and without universal helmet laws: There were 10 times as many unhelmeted motorcyclist fatalities in States without universal helmet laws (1,858 unhelmeted fatalities) as in States with universal helmet laws (178 unhelmeted fatalities) in 2012. These States were nearly equivalent with respect to total resident populations (NHTSA, 2013a).” (p. 19)

¹¹ http://www.ghsa.org/html/files/pubs/spotlights/motorcycles_2013.pdf, pp. 18-19

“Colorado, Guam, Kansas, New Mexico, and South Carolina all noted that lack of a universal helmet law hindered their efforts to reduce motorcyclist fatalities.” (p. 19)

The Governor’s Highway Safety Association goes on to note in their 2013 report *Countermeasures That Work: A Highway Safety Countermeasure Guide for State Highway Safety Offices*¹² the increase in injury and fatality after repealing or weakening helmet use laws, and warn that education and outreach will not increase helmet use:

“Motorcycle helmets are highly effective in protecting motorcycle riders’ heads in a crash. Research indicates that helmets reduce motorcycle rider fatalities by 22 to 42% and brain injuries by 41 to 69% (Coben, Steiner, & Miller, 2007; Cummings, Rivara, Olson, & Smith, 2006; Deuterman, 2004; Liu, Ivers, Norton, Blows, & Lo, 2008; NHTSA, 2003; NHTSA, 2006a). A Cochrane Collaboration review of 61 studies concluded that risk reductions were on the high end of the ranges mentioned above, with higher quality studies indicating that the protective effect of helmets was about a 42% reduction in risk of fatality in a crash and 69% for risk of a head injury in a crash. This review found that there was insufficient evidence to determine the effect on neck or facial injuries, or the effects of various types of FMVSS 218 compliant helmets on injury outcomes (Liu et al., 2008). Others have found no evidence that helmets increase the risk of neck injuries (NCHRP, 2008, Strategy E1; NHTSA, 2000a; Ulmer & Preusser, 2003).” (Ch.5, page 7)

“Strategies using only communications and outreach to promote helmet use, reduce impaired motorcycling, and increase licensing appear to have been no more successful with motorcycle riders than with other drivers.” (Ch.5, page 3)

Studies have refuted claims that helmets impair motorcyclist vision and hearing and contribute to rider neck injuries. The Insurance Institute for Highway Safety reports¹³:

“Claims have been made that helmets increase the risk of neck injury and reduce peripheral vision and hearing, but there is no credible evidence to support these arguments. A study by J.P. Goldstein often is cited by helmet opponents as evidence that helmets cause neck injuries, allegedly by adding to head mass in a crash. More than a dozen studies have refuted Goldstein’s findings. A 1994 study analyzed 1,153 motorcycle crashes in four Midwestern states and determined that “helmets reduce head injuries without an increased occurrence of spinal injuries in motorcycle trauma.” More recently, a review of cases in the National Trauma Data Bank found that helmeted riders were less likely to have cervical spine fractures in crashes than unhelmeted riders.

¹² <http://www.ghsa.org/html/publications/countermeasures.html>

¹³ <http://www.iihs.org/iihs/topics/t/motorcycles/qanda#motorcycles--helmets>

Regarding claims that helmets obstruct vision, studies show full-coverage helmets provide only minor restrictions in horizontal peripheral vision. A 1994 study found that wearing helmets does not restrict the ability to hear horn signals or to see a vehicle in an adjacent lane prior to initiating a lane change. To compensate for any restrictions in lateral vision, riders increased their head rotation prior to a lane change. There were no differences in hearing thresholds under three helmet conditions: no helmet, partial coverage and full coverage. The noise typically generated by a motorcycle is so loud that any reduction in hearing capability that may result from wearing a helmet is inconsequential. Sound loud enough to be heard above the engine can be heard when wearing a helmet.”

Even laws creating age restrictions for helmet use do little to further the public good. The American College of Surgeons reports that their findings indicate that youth in universal helmet states are significantly less likely to sustain a traumatic brain injury than in states with age-restricted helmet laws: The researchers found that the incidence of traumatic brain injury was significantly less in states with universal helmet laws compared to states with age-restricted helmet laws. In states with universal helmet laws, the rate of traumatic brain injuries per 1,000 motorcycle accidents was 282 versus 307 in states with less than 18-years helmet legislation and 366 in states with less than 21-years helmet legislation, and that helmet use in age-restricted states is the same as those without any law at all.¹⁴ Additionally, the Nebraska Office of Highway Safety reports that only 1% of Nebraska motorcyclists are under the age of 21¹⁵.

Disability Rights Nebraska urges this committee not to advance LB 31.

¹⁴ <https://www.facs.org/media/press%20releases/2014/anderson1028>

¹⁵ <http://www.transportation.nebraska.gov/nohs/pdf/mcinfo packet.pdf>