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Melissa Neiman

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# MOTORCYCLE HELMET LAWS: THE FACTS, WHAT CAN BE DONE TO JUMP-START HELMET USE, AND WAYS TO CAP DAMAGES

MELISSA NEIMAN\*

## INTRODUCTION

States first enacted universal motorcycle helmet laws in 1966, and by 1975 forty-seven states and the District of Columbia had such laws.<sup>1</sup> The states enacted motorcycle helmet laws in order to receive federal highway construction funds, which were contingent on the enactment of such laws.<sup>2</sup> These incentives were withdrawn, and motorcycle enthusiasts organized in groups, and successfully lobbied to have these state laws repealed.<sup>3</sup> Currently, only twenty states require helmets for all motorcycle riders while the remaining states either do not require helmets or have only partial laws that usually require helmets for riders less than eighteen years of age.<sup>4</sup>

Medical studies have overwhelmingly shown increased risks of both morbidity and mortality for non-helmeted motorcycle riders as opposed to helmeted riders.<sup>5</sup> Further studies have demonstrated the increased cost to society associated with the elevated morbidity and mortality for non-helmeted riders.<sup>6</sup> Although the medical literature and the cost analysis studies show universal helmet

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\* M.D. University of Texas Medical Branch; Residency, Neurological Surgery Parkland Memorial Hospital; Diplomate, American Board of Neurological Surgery; J.D. University of Houston Law Center.

1. M. Margaret Knudson et al., *Motorcycle Helmet Laws: Every Surgeon's Responsibility*, 199 J. AM. C. SURGEONS 261, 261 (2004).

2. 23 U.S.C. § 402(c) (2000).

3. Knudson et al., *supra* note 1, at 261; Am. Motorcyclist Ass'n, The History of the AMA, <http://www.amadirectlink.com/whatis/history.asp> (last visited Nov. 26, 2007).

4. Ins. Inst. for Highway Safety, Current U.S. Motorcycle and Bicycle Helmet Laws (June 2007), <http://www.iihs.org/laws/HelmetUseCurrent.aspx>.

5. Knudson et al., *supra* note 1, at 262; Jonathan C. Hundley et al., *Non-Helmeted Motorcyclists: A Burden to Society? A Study Using the National Trauma Data Bank*, 57 J. TRAUMA 944, 948 (2004).

6. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP'T OF TRANSP., STATE LEGISLATIVE FACT SHEET MOTORCYCLE HELMET USE LAWS (Jan. 2000), available at [http://www.nhtsa.dot.gov/people/outreach/safesobr/21qp/html/fact\\_sheets/Motorcycle\\_Helmet.html](http://www.nhtsa.dot.gov/people/outreach/safesobr/21qp/html/fact_sheets/Motorcycle_Helmet.html).

laws are in the best interest of the individual rider and society as a whole, motorcycle enthusiasts have fiercely lobbied against universal helmet laws, often proclaiming a right of individual choice.<sup>7</sup> Motorcyclists have successfully organized and exerted significant influence over state legislatures in defeating universal helmet laws.<sup>8</sup> Because society bears the burden of the increased costs associated with injuries to and deaths of non-helmeted riders, the individual rider's freedom of choice may have to be curtailed.<sup>9</sup>

Increased education for motorcycle enthusiasts and the public, along with a concerted, directed, and organized effort by health care organizations, is necessary to enact universal helmet laws.<sup>10</sup> Other measures, such as increased insurance requirements and the use of a helmet defense by defendants to allow for the mitigation of damages, may help encourage the use of helmets.<sup>11</sup>

## I. HISTORY OF HELMET LAWS AND CURRENT STATUS

In 1966 Congress enacted the Highway Safety Act (HSA) to deal with mounting highway safety problems.<sup>12</sup> The Act provided incentives for states to enact helmet laws,<sup>13</sup> and the states responded immediately by enacting these laws.<sup>14</sup> From the outset, the helmet laws were controversial,<sup>15</sup> and motorcycle groups became politically active and fought the helmet laws in courts.<sup>16</sup> Ten years later, Congress eliminated the federal funding incentive,<sup>17</sup> and many states began to repeal their helmet laws.<sup>18</sup> Subsequently, Congress has been unsuccessful in

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7. Knudson et al., *supra* note 1, at 261; Am. Motorcyclist Ass'n, *supra* note 3.

8. Am. Motorcyclist Ass'n, *supra* note 3.

9. Simon v. Sargent, 346 F. Supp. 277, 279 (D. Mass. 1972), *aff'd*, 409 U.S. 1020 (1972) (mem.).

10. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP'T OF TRANSP., STRAP 'N' SNAP IN GEORGIA: A CASE STUDY OF A SUCCESSFUL CAMPAIGN TO RAISE THE SEAT BELT USE RATE (n.d), available at [http://www.nhtsa.dot.gov/people/injury/airbags/buckleplan/BUA\\_WEBSITE/Archive-04/Cases/Georgia.html](http://www.nhtsa.dot.gov/people/injury/airbags/buckleplan/BUA_WEBSITE/Archive-04/Cases/Georgia.html).

11. John W. Schuster, *Riding Without a Helmet: Liability, Social Efficiency, and the More Perfect Wisconsin Compromise to Motorcycle Helmet Liability*, 89 IOWA L. REV. 1391, 1414-15 (2004).

12. Pub. L. No. 89-564, 80 Stat. 731 (codified as amended at 23 U.S.C. §§ 401-412 (2000)).

13. 23 U.S.C. § 402.

14. Knudson et al., *supra* note 1, at 261.

15. R.G. ULMER & D.F. PREUSSER., U.S. DEP'T OF TRANSP., EVALUATION OF THE REPEAL OF MOTORCYCLE HELMET LAWS IN KENTUCKY AND LOUISIANA 2 (2003), available at <http://www.nhtsa.gov/People/injury/pedbimot/motorcycle/kentucky-la03/Background.html>.

16. People v. Fries, 250 N.E.2d 149, 150-51 (Ill. 1969) (holding that Illinois' motorcycle-helmet statute is beyond the police power of the state legislature and unconstitutional), *overruled by* People v. Kohrig, 489 N.E.2d 1158 (Ill. 1986) ("The overwhelming weight of authority is that motorcycle-helmet laws are a valid exercise of the State's police power."); Simon v. Sargent, 346 F. Supp. 277, 278 (D. Mass. 1972), *aff'd*, 409 U.S. 1020 (1972) (mem.).

17. Federal-Aid Highway Act of 1976, Pub. L. No. 94-280, § 208(a), 90 Stat. 454 (codified as amended at 23 U.S.C. § 402(c) (2000)).

18. ULMER & PREUSSER., *supra* note 15.

passing any legislation encouraging states to enact mandatory motorcycle helmet laws.<sup>19</sup> Currently only twenty states and the District of Columbia have universal motorcycle helmet laws.<sup>20</sup>

### A. *The Highway Safety Act*

Prior to 1966 no state in this country had enacted a motorcycle helmet law.<sup>21</sup> The HSA created a federal highway safety grant program, and, to receive federal funds, each state was required to have a highway safety program in place, which was approved by the United States Secretary of Transportation.<sup>22</sup> Any state that did not enact a universal motorcycle helmet law was subject to withholding of portions of these federal funds.<sup>23</sup> The states responded, and by 1968, thirty-eight states had passed helmet laws.<sup>24</sup> By 1975, forty-seven states and the District of Columbia had passed helmet laws.<sup>25</sup> However, the mandatory helmet laws were not popular with motorcycle enthusiasts who organized efforts to repeal these laws.<sup>26</sup>

### B. *Development of Motorcycle Enthusiasts Groups*

Motorcycle enthusiasts initially formed groups in the early 1900's after the first American motorcycle was developed and marketed.<sup>27</sup> The American Motorcycle Association (AMA) was formed in 1924 from two existing organizations.<sup>28</sup> Initially, the AMA communicated with members regarding motorcycle competitions and events, legislative concerns, and public relations campaigns through publications.<sup>29</sup> With the rash of motorcycle helmet legislation in the 1960's, the AMA began to focus on the laws and regulations it perceived as threatening to the riders.<sup>30</sup> The AMA's Legislative Department was formed to "coordinate national legal activity against unconstitutional and discriminatory laws against motorcyclists, to serve as a sentinel on federal and state legislation affecting

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19. *Id.*; Intermodal Surface Transportation Efficiency Act of 1991, Pub. L. No. 102-240, § 1031, 105 Stat. 1914, 1970-72, *repealed by* National Highway System Designation Act of 1995, Pub. L. No. 104-59, § 205(e), 109 Stat. 568, 577 (prior to 1995 repeal).

20. Ins. Inst. for Highway Safety, *supra* note 4.

21. Knudson et al., *supra* note 1, at 261.

22. Highway Safety Act of 1966, Pub. L. No. 89-564, 80 Stat. 731 (codified as amended at 23 U.S.C. §§ 401-412 (2000)).

23. § 402(c), 80 Stat. at 732.

24. Knudson et al., *supra* note 1, at 261.

25. *Id.*

26. Am. Motorcyclist Ass'n, *supra* note 3.

27. *Id.*; Indian Motorcycle, <http://www.indianmotorcycle.com/> (follow "History" hyperlink) (noting that the Indian was the first motorcycle developed in the United States in 1901) (last visited Nov. 26, 2007).

28. Am. Motorcyclist Ass'n, *supra* note 3.

29. *Id.*

30. *Id.*

motorcyclists, and to be instrumental as a lobbying force for motorcyclists and motorcycling interests."<sup>31</sup> In addition, most states have formed individual chapters of American Bikers Aimed Toward Education (ABATE) with missions to promote motorcyclists' interests and to pressure Congress to remove the contingency of federal funding on the enactment of state helmet laws.<sup>32</sup>

### C. *Motorcycle Enthusiasts Take Their Fight to Court*

The motorcyclists also took their fight to court. In the late 1960's and early 1970's a few courts held that mandatory motorcycle helmet laws were unconstitutional, but these cases were rare and subsequently reversed or overruled. In *People v. Fries*, the court held that the purpose of the helmet law, which was to protect the person wearing the helmet, was laudable but could not "justify the regulation of what is essentially a matter of personal safety."<sup>33</sup> This holding was later overruled, and although there have been many cases since challenging helmet laws, those challenges universally failed.<sup>34</sup> Courts have held motorcycle helmet laws constitute the proper exercise of the state police power, and that these laws are rationally related to the state's purpose of promoting the safety of individuals riding on highways.<sup>35</sup>

Plaintiffs have used a variety of arguments in their attempts to attack state helmet laws. In *Simon v. Sargent*, Simon asserted that the state's police power "does not extend to overcoming the right of an individual to incur risks that involve only himself."<sup>36</sup> While the court agreed that the purpose of the Massachusetts statute was the prevention of a head injury to the motorcycle rider, the consequences were not limited to the injured person.<sup>37</sup> The court held that the public does have an interest in minimizing resources directly involved because

[f]rom the moment of the injury, society picks up the person off the highway; delivers him to a municipal hospital and municipal doctors; provides him with unemployment compensation if, after recovery, he cannot replace his lost job, and, if the injury causes permanent disability, may assume the responsibility for him and his family's continued subsistence. We do not understand a state of mind that permits plaintiff to think that only he himself is concerned.<sup>38</sup>

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31. *Id.* (noting that the legislative department has since been renamed the Government Relations Department).

32. Knudson et al., *supra* note 1, at 261.

33. *People v. Fries*, 250 N.E.2d 149, 151 (Ill. 1969), *overruled by* *People v. Kohrig*, 489 N.E.2d 1158 (Ill. 1986) (holding that the requirement of seatbelt use is a legitimate use of state police powers).

34. *E.g.*, *Picou v. Gillum*, 874 F.2d 1519, 1522 (11th Cir. 1989).

35. *E.g.*, *id.* at 1522; *Buhl v. Hannigan*, 20 Cal. Rptr. 2d 740, 748-49 (Cal. Ct. App. 1993).

36. 346 F. Supp. 277, 278 (D. Mass. 1972), *aff'd*, 409 U.S. 1020 (1972) (mem.).

37. *Id.* at 279.

38. *Id.*

In *Picou v. Gillum*, the plaintiff relied on an individual's right to privacy as a defense for violating the helmet law, but the court held that the wearing of a helmet on the open road could not be deemed a private or an intimate personal decision.<sup>39</sup> This court also noted that, while the helmet law serves to protect the motorcyclist, those riding without helmets are more likely to incur injury and the state and local governments will likewise incur the costs of providing police and ambulance services.<sup>40</sup> Furthermore, injured motorcycle riders may be hospitalized at public expense and could require public aid for years.<sup>41</sup> Currently, the highest courts in at least twenty-five states have upheld the constitutionality of motorcycle helmet laws.<sup>42</sup>

#### D. Congress Eliminates Incentives for State Helmet Laws

While motorcycle enthusiasts were not successful in challenging helmet laws in court, in 1976 Congress eliminated the contingency of federal funding because of the enactment of helmet laws.<sup>43</sup> The motorcyclists' argument against helmet laws, often based on the notion of freedom of choice, had failed in courts, but the argument was successful in some state legislatures.<sup>44</sup> Many states repealed their helmet laws, and by 1980, only nineteen states and the District of Columbia had universal helmet laws.<sup>45</sup>

During the 1990's, Congress again attempted to encourage the enactment of state helmet laws.<sup>46</sup> Congress asked the United States General Accounting Office (GAO) to provide a report regarding the effectiveness of motorcycle helmet use related to morbidity and mortality, and the costs incurred by society for injuries to non-helmeted riders.<sup>47</sup> The GAO found that helmet use resulted in significant decreases in morbidity and mortality, and that helmet laws lead to the increased use of helmets.<sup>48</sup> In 1991, Congress passed the Intermodal Surface Transportation

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39. 874 F.2d at 1520–21.

40. *Id.* at 1522.

41. *Id.*

42. *Id.* at 1520 & n.12 (citing over 25 state cases that have “upheld mandatory motorcycle helmet laws against numerous constitutional challenges . . .”).

43. Federal-Aid Highway Act of 1976, Pub. L. No. 94–280, § 208(a), 90 Stat. 453, 454 (codified as amended at 23 U.S.C. § 402(c) (2000)). The helmet requirement was supposedly dropped to protect individual liberty, and may in part have been a result of the organized political activities of the motorcycle groups. Thaddeus Mason Pope, *Balancing Public Health Against Individual Liberty: The Ethics of Smoking Regulations*, 61 U. PITT. L. REV. 419, 498 n.60 (2000) (citation omitted).

44. Clay P. Graham, Student Contribution, *Helmetless Motorcyclists—Easy Riders Facing Hard Facts: The Rise of the “Motorcycle Helmet Defense,”* 41 OHIO ST. L.J. 233, 238 (1980).

45. ULMER & PREUSSER, *supra* note 15.

46. *Id.*

47. *Id.*

48. U.S. GEN. ACCOUNTING OFFICE, HIGHWAY SAFETY: MOTORCYCLE HELMET LAWS SAVE LIVES AND REDUCE COSTS TO SOCIETY 3 (1991), available at <http://archive.gao.gov/d19t9/144486.pdf>.

Efficiency Act, which incorporated both an incentive and a penalty to promote universal helmet laws, but this had little effect on the states.<sup>49</sup> The Act was repealed in 1995,<sup>50</sup> and in the late 1990's, many states repealed or amended their universal helmet laws.<sup>51</sup> Since 1997, Texas, Florida, Pennsylvania, Kentucky, and Arkansas have amended their universal helmet laws to partial laws requiring only those riders twenty years old or younger to wear helmets.<sup>52</sup>

### *E. Current Status of Helmet Laws*

As of June 2007, twenty states and the District of Columbia had universal motorcycle helmet laws, and twenty-seven states had partial helmet laws, which usually covered individuals either under twenty-one years of age or under eighteen years of age.<sup>53</sup> Three states had no helmet laws.<sup>54</sup> Of the states with partial laws, many were written to cover all riders while allowing exceptions. For instance, Florida's partial helmet law requires that all motorcycle riders wear helmets, except for riders over the age of twenty-one who are covered by an insurance policy providing for a minimum of \$10,000 in medical benefits for injuries incurred as a result of any accident while riding or operating a motorcycle.<sup>55</sup> Texas law requires that an individual wear a helmet to operate a motorcycle on a public street or highway but makes an exception for persons (1) who are at least 21 years old and (2) have successfully completed a motorcycle operator training and safety course, or are covered by a health insurance plan providing at least \$10,000 in medical benefits for injuries incurred in an accident while operating the motorcycle.<sup>56</sup>

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49. Intermodal Surface Transportation Efficiency Act of 1991, Pub. L. No. 102-240, § 1031, 105 Stat. 1914, 1970-72 (repealed 1995); ULMER & PREUSSER, *supra* note 15.

50. National Highway System Designation Act of 1995, Pub. L. No. 104-59, § 205(e), 109 Stat. 568, 577 (codified as amended 23 U.S.C. § 153 (2002)) (repealing Intermodal Surface Transportation Efficiency Act, § 1031).

51. ULMER & PREUSSER, *supra* note 15.

52. ARK. CODE ANN. § 27-20-104 (2007); FLA. STAT. § 316.211 (2004); KY. REV. STAT. ANN. § 18.285(3)(a) (West 2006 & Supp. 2006); 75 PA. STAT. ANN. § 3525(d)(2)-(4) (West 2006); TEX. TRANSP. CODE ANN. § 661.003 (Vernon 2003); Karen Lundegaard, *Risky Riders: Touting Freedom, Bikers Take Aim at Helmet Laws*, WALL ST. J., Dec. 1, 2004, at A1; Ins. Inst. for Highway Safety, *supra* note 4.

53. Ins. Inst. for Highway Safety, *supra* note 4.

54. *Id.* (noting Illinois, Iowa and New Hampshire have no laws regarding motorcycle helmet use). New Hampshire has also foregone federal highway funds and repeatedly refused to enact a seatbelt law. James A. Gardner, *State Constitutional Rights as Resistance to National Power: Toward a Functional Theory of State Constitutions*, 91 GEO. L.J. 1003, 1027 (2003).

55. FLA. STAT. ANN. § 316.211(3)(b) (West 2006 & Supp. 2007).

56. TEX. TRANSP. CODE ANN. § 661.003(c) (Vernon 1999 & Supp. 2006).

## II. COMPLIANCE WITH EXISTING STATE HELMET LAWS

The enactment of a universal helmet law directly relates to helmet use in that state.<sup>57</sup> Helmet use rises to nearly 100% when a state passes a universal helmet law.<sup>58</sup> The GAO, in reviewing nine separate studies, found that 92% to 100% of riders complied with the helmet law in states with universal helmet laws.<sup>59</sup> In states that reinstated previously repealed helmet laws, helmet use increased to more than 95%.<sup>60</sup> For example, in a California study, helmet use increased from 50% to 99% after the re-enactment of a universal helmet law.<sup>61</sup> Compliance with helmet laws may be high because helmets are highly visible, and a law enforcement officer can often easily determine whether a motorcyclist is wearing a helmet.<sup>62</sup>

In contrast, as states have repealed helmet laws, helmet use has decreased.<sup>63</sup> In the nine-study-review done by the GAO, the use of helmets by motorcyclists ranged from 42% to 59% in states with limited helmet laws.<sup>64</sup> In a study examining data from 10 states, helmet use dropped from 99% to 50% when universal helmet laws were repealed.<sup>65</sup> For example, in Arkansas, helmet use dropped from 97% to 52% after the repeal of the helmet law.<sup>66</sup> In the United States, overall helmet use has decreased from 71% in 2000 to 58% in 2002.<sup>67</sup> In states with partial helmet laws, the compliance of underage riders using helmets is considerably lower than in states with universal helmet laws.<sup>68</sup> Age specific laws requiring riders under a certain age to wear a helmet are much more difficult to apply and enforce, and therefore have much less impact on helmet use than universal laws.<sup>69</sup> Similarly,

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57. Knudson et al., *supra* note 1, at 261.

58. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP'T OF TRANSP., WITHOUT MOTORCYCLE HELMETS WE ALL PAY THE PRICE 9 (1998), available at <http://www.nhtsa.dot.gov/people/injury/pedbimot/motorcycle/safebike/helmet.html>.

59. U.S. GEN. ACCOUNTING OFFICE, *supra* note 48, at 4.

60. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 58, at 10.

61. Knudson et al., *supra* note 1, at 261; Jess F. Kraus et al., *The Effect of the 1992 California Motorcycle Helmet Use Law on Motorcycle Crash Fatalities and Injuries*, 272 JAMA 1506, 1510 (1994).

62. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 58, at 9.

63. Knudson et al., *supra* note 1, at 261.

64. U.S. GEN. ACCOUNTING OFFICE, *supra* note 48, at 22.

65. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 58.

66. Knudson et al., *supra* note 1, at 262; D.F. PRUESSER ET AL., NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP'T OF TRANSP., EVALUATION OF MOTORCYCLE HELMET LAW REPEAL IN ARKANSAS AND TEXAS 16 (2000), available at <http://www.nhtsa.dot.gov/people/injury/pedbimot/motorcycle/EvalofMotor.pdf>.

67. Knudson et al., *supra* note 1, at 261.

68. *Id.* at 262.

69. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 58, at 9.



helmet laws pertaining to rider education requirements, such as the Texas law, are equally difficult to enforce.<sup>70</sup>

### III. MOTORCYCLE ACCIDENTS: FACTORS AFFECTING BRAIN RELATED MORBIDITY AND MORTALITY

By virtue of their design, motorcycles are inherently more dangerous than automobiles.<sup>71</sup> The rate of injuries and deaths for riders involved in motorcycle accidents is far greater than rates for occupants involved in automobile accidents.<sup>72</sup> Studies from multiple states have shown that helmet use significantly reduces the morbidity and mortality for motorcycle riders.<sup>73</sup> Studies from other countries support the findings in the United States.<sup>74</sup> Studies that do not support these conclusions are exceedingly rare.<sup>75</sup> Therefore, the medical literature overwhelmingly supports the use of motorcycle helmets to reduce the rate of head injuries and deaths from motorcycle accidents.<sup>76</sup>

#### A. *Comparison of Motorcycle and Automobile Designs*

A motorcycle lacks the "crashworthiness" and protection that the usual automobile offers.<sup>77</sup> The typical automobile insulates the occupants with its door beams, roof, and airbags, and also weighs more and is bulkier than a motorcycle.<sup>78</sup> Additionally, the automobile is a safer vehicle than a motorcycle, because its four wheels provide for greater stability and its larger size results in greater visibility.<sup>79</sup> Because the motorcycle offers no protection to the head or body of the rider, when the motorcycle comes to a sudden stop, the rider faces the grave risk of being

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70. *Id.*; TEX. TRANSP. CODE ANN. § 661.003(c) (Vernon 1999 & Supp. 2006) (creating a helmet use exception for persons of at least 21 years of age that have successfully completed a motorcycle operator training and safety course).

71. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 58, at 3.

72. Knudson et al., *supra* note 1, at 262.

73. *Id.* at 261-62.

74. W.T. Chiu et al., *The Effect of the Taiwan Motorcycle Helmet Use Law on Head Injuries*, 90 AM. J. PUB. HEALTH 793, 793 (2000); F. Servadei et al., *Effect of Italy's Motorcycle Helmet Law on Traumatic Brain Injuries*, 9 INJ. PREVENTION 257, 259 (2003).

75. E.g., Jonathan P. Goldstein, *The Effect of Motorcycle Helmet Use on the Probability of Fatality and the Severity of Head and Neck Injuries: A Latent Variable Framework*, 10 EVALUATION REV. 355, 356 (1986); Lisa Stolzenberg & Stewart J. D'Alessio, "Born to be Wild": *The Effect of the Repeal of Florida's Mandatory Motorcycle Helmet-Use Law on Serious Injury and Fatality Rates*, 27 EVALUATION REV. 131, 146-47 (2003).

76. E.g., Knudson et al., *supra* note 1, at 261-63.

77. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 58, at 3.

78. *Id.*

79. *Id.*

suddenly ejected from the motorcycle and “forcibly striking objects in the path as well as the ground.”<sup>80</sup>

*B. Motorcycle Accident Morbidity and Mortality Data in the United States*

In 1990, the deaths per mile traveled were twenty-one times greater in motorcycle accidents than in automobile accidents.<sup>81</sup> While motorcycles represent less than 3% of registered passenger vehicles, they represent approximately 9% of the fatalities for all passenger vehicles.<sup>82</sup> Specifically, between 1994 and 1996, motorcycle rider deaths composed 9.3% of all traffic deaths.<sup>83</sup> While 80% of motorcycle accidents result in injury or death, only 20% of other passenger vehicular accidents result in injury or death.<sup>84</sup> Moreover, for every motorcycle fatality there are approximately ninety motorcycle injuries requiring medical care.<sup>85</sup> In 2002, approximately 65,000 motorcyclists were injured and 3,244 were killed in highway accidents in the United States.<sup>86</sup> Motorcycle accident fatalities have been increasing since 1997, and motorcycle accident injuries have been increasing since 1999.<sup>87</sup>

*C. The Effect of Helmet Use on Motorcycle Accident Morbidity and Mortality*

Many studies of motorcycle accidents have related the increasing incidence of morbidity, particularly brain injuries, as well as mortality due to brain injuries, to the repeal of the helmet laws.<sup>88</sup> The variation in helmet laws among the states has enabled extensive research that compares the effects of helmet laws on morbidity and mortality before and after the repeal of helmet laws, as well as comparisons

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80. *Id.*

81. Knudson et al., *supra* note 1, at 262.

82. WILLIAM V. DEUTERMANN, CALCULATING THE LIVES SAVED BY MOTORCYCLE HELMETS 1 (2005), available at <http://www-nrd.nhtsa.dot.gov/Pubs/809861.pdf>; NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., TRAFFIC SAFETY FACTS 2003 DATA: MOTORCYCLES 2 (n.d.), available at <http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSF2003/809764.pdf>.

83. Knudson et al., *supra* note 1, at 262.

84. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP'T OF TRANSP., MOTORCYCLE SAFETY PROGRAM 3 (2003), available at <http://www.nhtsa.dot.gov/people/injury/pedbimot/motorcycle/motorcycle03/McycleSafetyProgram.pdf>.

85. Knudson et al., *supra* note 1, at 262.

86. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP'T OF TRANSP., TRAFFIC SAFETY FACTS: MOTORCYCLE HELMET USE LAWS (2004), available at <http://www.nhtsa.dot.gov/people/injury/newfact-sheet03/MotorcycleHelmet.pdf>.

87. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 82.

88. Knudson et al., *supra* note 1, at 262; NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 82, at 1.

between states that have helmet laws and those states without such laws.<sup>89</sup> According to the National Highway Traffic Safety Administration (NHTSA), head injury is a leading cause of death in motorcycle accidents.<sup>90</sup> The use of a motorcycle helmet reduces the likelihood of death in a motorcycle accident by 29%.<sup>91</sup> Additional studies done by the NHTSA have shown that the likelihood of a non-helmeted rider incurring a brain injury is three times more likely than in accidents involving a helmeted rider.<sup>92</sup> The mortality rates are lower in states with universal helmet laws than in states without such laws.<sup>93</sup> This has been demonstrated after taking into account such factors as "weather, average state temperature, speed limits, median age, population density, and per capita state alcohol consumption."<sup>94</sup> One study used data from the National Trauma Data Bank (NTDB) over an eight year period, in which 9,769 patients were identified as motorcycle accident victims.<sup>95</sup> Of this group, 6,756 (69.2%) were helmeted and 3,013 (30.8%) were non-helmeted.<sup>96</sup> Overall, the helmeted riders sustained less severe injuries and had a lower mortality rate as compared to the non-helmeted riders.<sup>97</sup>

#### *D. Morbidity and Mortality Data from Arkansas*

Effective March 12, 1997, Arkansas became the first state in fourteen years to repeal its adult helmet law.<sup>98</sup> As evidenced by the motorcyclists receiving emergency medical services in Arkansas, the use of helmets dropped from 55% in 1997 to below 30% in 1998.<sup>99</sup> A study from the University of Arkansas for Medical Sciences provided data from its trauma registry throughout a six year period, which covered the three years prior and the three years after the repeal of the helmet law.<sup>100</sup> Before the repeal, 25% of motorcyclists injured in an accident were non-helmeted, as opposed to 54% after the repeal.<sup>101</sup> Although the total number of

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89. Erica M. Straus, *Motorcycle Helmet Laws: The Role of Scientific Research in Public Policy I* (n.d) (unpublished research paper), available at <http://www.smdc.army.mil/SAFETY/Occupational/Motorcycle/HelmetStudy.doc>.

90. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 6.

91. *Id.*

92. *Id.*

93. Straus, *supra* note 89, at 2.

94. *Id.*

95. Hundley et al., *supra* note 5, at 944-45.

96. *Id.* at 944.

97. *Id.* at 944, 948.

98. Act of Mar. 12, 1997, No. 453, 1997 Ark. Acts. 2452, 2452-53 (codified as amended at ARK. CODE ANN. § 27-20-104(1)(b) (2004 & Supp. 2007)).

99. PREUSSER ET AL., *supra* note 66, at vii.

100. Gregory H. Bledsoe et al., *The Negative Impact of the Repeal of the Arkansas Motorcycle Helmet Law*, 53 J. TRAUMA 1078, 1079 (2002).

101. *Id.* at 1079, 1081.

accidents did not change significantly, non-helmeted deaths increased from 39.6% before the repeal to 75.5% after the repeal.<sup>102</sup> Overall, the patients who were non-helmeted had a significantly increased incidence of head and neck injuries as opposed to the patients who wore helmets.<sup>103</sup>

#### *E. Morbidity and Mortality Data from California*

California passed a universal helmet law in 1991,<sup>104</sup> and in that first year, the number of motorcyclists hospitalized with a brain injury dropped by 53%.<sup>105</sup> In one California study, data regarding fatalities was gathered from police reports and death certificates in eleven counties.<sup>106</sup> Nonfatal motorcycle injury reports were obtained from the records of twenty-eight hospitals in ten of the eleven counties.<sup>107</sup> Motorcycle fatalities decreased by more than 37%, and motorcycle fatality rates per 100,000 registered motorcycles were reduced by 26.5%.<sup>108</sup>

#### *F. Morbidity and Mortality Data from Louisiana*

Louisiana repealed its universal helmet law on August 15, 1999.<sup>109</sup> Thereafter, helmet use was required only for motorcyclists and passengers under eighteen years of age and for those riders over eighteen without health insurance coverage of at least \$10,000.<sup>110</sup> Prior to repealing the universal helmet law in 1999, 97% of the motorcyclists complied with the law.<sup>111</sup> In 2000, 52% of the motorcyclists were wearing helmets.<sup>112</sup> In the last two years during which the universal helmet law was in effect, 741 motorcyclists were injured.<sup>113</sup> In 2000, injuries increased by 40% to 1,011 injuries.<sup>114</sup> Although Louisiana experienced a large increase in motorcycle registrations from 1997 to 2000, the injury rate per registered motorcycle increased approximately 20% from 1998 to 2000, indicating that the increase in the injuries was not due solely to an increase in motorcycle

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102. *Id.* at 1078.

103. *Id.* at 1080–81.

104. Act of May 20, 1991, ch. 32, 1991 Cal. Legis. Serv. 120, 120–21 (West) (codified as amended at CAL. VEH. CODE § 27803 (2000)).

105. Straus, *supra* note 89, at 3 (noting the number of riders admitted to hospitals with brain injuries dropped from 1,258 to 588).

106. Kraus et al., *supra* note 61, at 1507.

107. *Id.*

108. *Id.* at 1508.

109. 1999 La. Acts 1471 (codified as amended at LA. REV. STAT. ANN. § 32:190(a) (2002), amended by 2004 La. Acts 2342 (codified as amended at LA. REV. STAT. ANN. § 32:190.A (2007))).

110. LA. REV. STAT. ANN. § 32:190.A(1)–(2) (2002) (amended 2004).

111. ULMER & PRUESSER., *supra* note 15, at 25.

112. *Id.*

113. *Id.*

114. *Id.*

registration.<sup>115</sup> In 1998, the Louisiana Department of Public Safety reported 5.9 motorcyclists killed per 10,000 registered motorcycles.<sup>116</sup> In 2000, there were 7.9 motorcyclists killed per 10,000 registered motorcycles, representing an increase in fatalities of approximately 27% after the repeal of the universal helmet law.<sup>117</sup>

### G. *Morbidity and Mortality Data from Maryland*

Maryland enacted a universal helmet law on October 1, 1992.<sup>118</sup> Statewide motorcycle fatalities during a seasonably comparable thirty-three month period immediately prior to the passage of the helmet law were compared to fatalities in the seasonably comparable thirty-three months after the passage of the law.<sup>119</sup> The number of registered motorcycles remained almost the same during the entire period, and the motorcycle fatality rate dropped from 10.2 per 10,000 registered motorcycles prior to enactment of the law to 4.5 per 10,000 registered motorcycles after enactment of the law.<sup>120</sup> In addition, helmeted riders were found to have a lower risk of traumatic brain injury.<sup>121</sup>

### H. *Collation of Morbidity and Mortality Data from Multiple States*

A group of researchers performed a systematic review, collating the available evidence on helmets and their impact on mortality, as well as head, face, and neck injuries of motorcycle accident victims.<sup>122</sup> To quantify the effectiveness of helmet use in reducing mortality and head and neck injuries in motorcycle accidents, the researchers reviewed multiple databases, including websites of traffic and government agencies involved in road accident research.<sup>123</sup> Fifty-three studies were identified, and although there were differences in methodology regarding the various studies, helmets were consistently found to reduce the incidence of

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115. *Id.* (noting that in 1998 there were 121 motorcycle accident injuries per 10,000 registered motorcycles, and in 2000 there were 152 motorcycle accident injuries per 10,000 registered motorcycles).

116. *Id.*

117. *Id.*

118. 1992 Md. Laws 5-8 (codified as amended at MD. CODE ANN., TRANSP. § 21-1306 (2002)).

119. Kimberly M. Ausman et al., *Autopsy Study of Motorcyclist Fatalities: The Effect of the 1992 Maryland Motorcycle Helmet Use Law*, 92 AM. J. PUB. HEALTH, 1352, 1352 (2002).

120. *Id.* at 1353.

121. *Id.* at 1354.

122. See B. LIU ET AL., HELMETS FOR PREVENTING INJURY IN MOTORCYCLE RIDERS (REVIEW) 3 (Cochrane Database of Systematic Reviews 2007).

123. *Id.*

mortality and head injuries.<sup>124</sup> The effect of helmet use on the incidence of facial or neck injuries could not be discerned due to insufficient data.<sup>125</sup>

*I. Morbidity and Mortality Data from Other Countries Supports Data from the United States*

Most countries other than the United States have laws requiring motorcyclists to wear helmets.<sup>126</sup> Studies from other countries support the pervasive findings in the United States' medical literature of decreased incidence of head injuries and deaths associated with motorcycle helmet use.<sup>127</sup> In Taiwan, data was collected from fifty-six major hospitals regarding motorcycle-related head injuries for a one year period prior to enactment of a helmet law and for a one year period after enactment of the law.<sup>128</sup> The number of motorcycle-related head injuries decreased by 33% after enactment of the law.<sup>129</sup> Similarly, an Italian study found a decreased incidence of traumatic brain injury in motorcyclists in the Romagna region after the institution of a helmet law.<sup>130</sup> Helmet use increased from 15% to 96% after enactment of the law, and the incidence of traumatic brain injuries decreased by 66%.<sup>131</sup>

In the United States, NHTSA estimates that helmet use by riders saved approximately 8,974 lives from 1984 through 1998 and, during that same time frame, the lives of an additional 7,124 motorcyclists could have been saved by the wearing of helmets.<sup>132</sup> The medical literature overwhelmingly supports the use of helmets by motorcyclists; the literature documents reductions in both mortality and brain injuries with helmet use.<sup>133</sup> Interpretations of NHTSA data and state records regarding motorcycle accidents that contradict these findings are sparse.

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124. *Id.* at 4, 8 (noting that the risk of head injury in five particularly well-conducted studies was decreased by approximately 72% with helmet use. The decreased risk of mortality with helmet use may be modified by other factors such as speed).

125. *Id.* at 8.

126. Ins. Inst. for Highway Safety, Highway Loss Data Institute, Q & A: Motorcycle Helmet Use Laws, [http://www.iihs.org/research/qanda/helmet\\_use.html](http://www.iihs.org/research/qanda/helmet_use.html) (follow "Do other countries have motorcycle helmet use laws?" hyperlink) (last visited Dec. 21, 2007).

127. See, e.g., Chiu et al., *supra* note 74, at 793; Servadei et al., *supra* note 74, at 257.

128. Chiu et al., *supra* note 74, at 793.

129. *Id.* at 794.

130. Servadei et al., *supra* note 74, at 260.

131. *Id.* at 259.

132. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 6.

133. LIU ET AL., *supra* note 122, at 5.

*J. Sparse Conflicting Data Regarding Morbidity and Mortality*

Two papers have reported findings demonstrating the ineffectiveness of helmets in preventing morbidity and mortality.<sup>134</sup> In one study, NHTSA data was used to reconstruct accidents while considering factors including helmet use, speeds, and the rider's age and experience.<sup>135</sup> According to the study, helmet use did not prevent fatalities but did lead to reduction of severity of head injuries at only very low speeds.<sup>136</sup> NHTSA responded to this report by noting several major flaws in the interpretation of the data, which led to erroneous conclusions.<sup>137</sup> This study is widely cited by helmet opponents, but its findings have been refuted in more than a dozen studies.<sup>138</sup> One large study, in particular, evaluated 1,153 motorcycle crashes in four states, and concluded that helmet use led to a reduction in head injuries without any increase in the incidence of spinal injuries.<sup>139</sup>

The second paper from the same journal evaluated data from Florida, and concluded that the helmet law repeal had "little observable effect" on morbidity and mortality from motorcycle accidents.<sup>140</sup> This is an isolated study that directly conflicts with the majority of studies related to the repeal of Florida's helmet law.<sup>141</sup> Florida repealed its universal helmet law on July 1, 2000.<sup>142</sup> One study revealed a 48.6% overall increase in fatalities of motorcycle riders in the year after the law change.<sup>143</sup> When the increase in motorcycle registrations was considered, the fatality rate had decreased by 21.3%, and when trends in travel mileage were taken into account, the fatality rate had decreased by 38.2%.<sup>144</sup> Another study from the University of Miami School of Medicine's Department of Neurological Surgery examined all patients involved in motorcycle accidents after the repeal of the

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134. Goldstein, *supra* note 75, at 356; Stolzenberg & D'Alessio, *supra* note 75.

135. Goldstein, *supra* note 75, at 357-59.

136. *Id.* at 365 (noting that beyond approximately thirteen miles per hour helmet use did not decrease the risk of brain injury, but did increase the risk of neck injuries).

137. BRUCE A. LAWRENCE ET AL., NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., COSTS OF INJURIES RESULTING FROM MOTORCYCLE CRASHES: A LITERATURE REVIEW app. B at 89-91 (2002), available at [http://www.nhtsa.dot.gov/people/injury/pedbimot/motorcycle/Motorcycle\\_HTML/index.html](http://www.nhtsa.dot.gov/people/injury/pedbimot/motorcycle/Motorcycle_HTML/index.html) (according to the NHTSA, Goldstein incorrectly used the equation for relative impact velocity, did not include impact velocity as a separate variable, and did not take into account the fact that neck injuries occurred one-tenth as often as head injuries).

138. Ins. Inst. for Highway Safety, *supra* note 126 (follow "Are there drawbacks to helmet use?" hyperlink).

139. Elizabeth M. Orsay et al., *Motorcycle Helmets and Spinal Injuries: Dispelling the Myth*, 23 ANNALS EMERGENCY MED. 802, 803, 805 (1994).

140. Stolzenberg & D'Alessio, *supra* note 75, at 146.

141. E.g., Andreas Muller, *Florida's Motorcycle Helmet Law Repeal and Fatality Rates*, 94 AM. J. PUB. HEALTH 556, 557-58 (2004).

142. 2000 Fla. Laws 3283 (codified as amended at FLA. STAT. ANN. § 316.211(b) (West 2006 & Supp. 2007)).

143. Muller, *supra* note 141, at 557.

144. *Id.* at 557.

helmet law from July 1, 2000 through December 31, 2000.<sup>145</sup> During the time of the study, helmet use decreased from 83% in 1999 to 56% in 2000.<sup>146</sup> In 1999, the year before the repeal, fifty-two motorcycle accident patients were treated at the facility, and in the year after the repeal, the facility treated ninety-four patients.<sup>147</sup> Additionally, the number of patients with brain injuries increased from eighteen to thirty-five, and there was an increase in the number of fatalities.<sup>148</sup>

*K. Medical Literature Overwhelmingly Shows Decreased Morbidity and Mortality Associated with Motorcycle Helmet Use*

Medical literature generally supports the fact that helmet use results in a significant decrease in brain injuries and likely does not increase the risk of a neck injury. The GAO also vigorously supports the use of helmets and, in a review of forty-six studies, found decreased fatality rates up to 73% for helmeted riders as well as an 85% reduction in injury severity.<sup>149</sup> Statistically, the case for helmet laws is solid and well supported by government statistics, and in each state that has repealed its universal helmet law, motorcycle deaths have more than doubled.<sup>150</sup> Motorcycle use has also increased, but the increase has not been so great as to account for the increase in the rate of fatalities.<sup>151</sup>

To investigate the relationship between increased motorcycle use and increased fatalities, *The Wall Street Journal* looked at the change in motorcycle fatalities per 10,000 registered motorcycles.<sup>152</sup> In 2003, motorcycle deaths rose 12% nationwide to 3,661.<sup>153</sup> From 1997 to 2003, motorcycle deaths increased for six straight years with the largest annual percentage increase occurring in 2003.<sup>154</sup> The national death rate had increased to 6.82 deaths per 10,000 motorcycles, which represented an increase of 4.4% and the highest death rate since 1990.<sup>155</sup>

IV. HELMET STANDARDS AND MOTORCYCLISTS' PERCEPTION OF HELMETS

To promote the development of effective helmets, the Department of Transportation (DOT) established the Federal Motor Vehicle Safety Standard

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145. Gillian A. Hotz et al., *The Impact of a Repealed Motorcycle Helmet Law in Miami-Dade County*, 52 J. TRAUMA 469, 470 (2002).

146. *Id.*

147. *Id.*

148. *Id.* at 469.

149. U.S. GEN. ACCOUNTING OFFICE, *supra* note 48, at 17–18.

150. Lundegaard, *supra* note 52.

151. *Id.*

152. *Id.*

153. *Id.*

154. *Id.*

155. *Id.*



(FMVSS), and since 1974, motorcycle helmets have been required to meet or exceed this standard.<sup>156</sup> It is illegal to sell a helmet for use on a motorcycle if it does not meet this standard.<sup>157</sup> Periodically these standards are updated by private testing laboratories, and many helmet manufacturers voluntarily submit their helmets for testing.<sup>158</sup> The helmets have a hard outer shell so that, upon impact, the forces applied are distributed to protect the skull and brain, and also to prevent penetration of the helmet.<sup>159</sup> A crushable inner liner absorbs part of the force applied to the helmet, preventing the direct application of that force to the skull and brain.<sup>160</sup> In the early 1990's, a significant improvement in the materials used in the manufacture of helmets was the introduction of Kevlar, expanded polypropylene, and carbon fiber used in the outer shell and the protective lining.<sup>161</sup>

DOT not only establishes standards regarding the amount of force a helmet should absorb, but also sets standards regarding the allowable amount of peripheral vision.<sup>162</sup> DOT conducted a study in order to set standards and evaluate the effect of helmet use on the ability of the rider to see vehicles in an adjacent lane prior to changing lanes and to hear traffic sounds at normal highway speeds.<sup>163</sup> Federal standards were set requiring helmets to allow for at least 105 degrees of peripheral vision.<sup>164</sup> Most helmets provide a peripheral field of view greater than 210 degrees, which falls within the normal peripheral vision range of 180 to 220 degrees.<sup>165</sup> No restriction in vision or the ability to see adjacent vehicles was found using this standard.<sup>166</sup> The NHTSA study also noted an inconsequential reduction in the rider's ability to hear while wearing a helmet.<sup>167</sup>

Helmet opponents assert that helmets make it much more difficult for the rider to see by reducing peripheral vision and impairing the rider's ability to

156. 49 C.F.R. § 571.218 (2006).

157. 49 U.S.C. § 30112 (2000).

158. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP'T OF TRANSP., MOTORCYCLE HELMET EFFECTIVENESS REVISITED 3 (2004), available at <http://www-nrd.nhtsa.dot.gov/Pubs/809715.PDF>.

159. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP'T OF TRANSP., HOW TO IDENTIFY UNSAFE MOTORCYCLE HELMETS (2004), available at <http://www.nhtsa.dot.gov/people/injury/pedbimot/motorcycle/UnsafeHelmetID/images/UnsafeHelmets.pdf>; MOTORCYCLE SAFETY FOUND., WHAT YOU SHOULD KNOW ABOUT MOTORCYCLE HELMETS (2002), available at [http://www.msf-usa.org/downloads/helmet\\_CSI.pdf](http://www.msf-usa.org/downloads/helmet_CSI.pdf).

160. MOTORCYCLE SAFETY FOUND., *supra* note 159.

161. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 158.

162. 49 C.F.R. § 571.218(S5.4) (2006).

163. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 86.

164. 49 C.F.R. § 571.218(S5.4).

165. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP'T OF TRANSP., TRAFFIC SAFETY FACTS 1995: MOTORCYCLES 5 (1995), available at <http://www-nrd.nhtsa.dot.gov/Pubs/95motorcyclists.pdf>; BIOLOGICAL SCI. CURRICULUM STUDY, INVESTIGATING PHYSICAL SYSTEMS 81 (3d ed. 2003).

166. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 165.

167. Ins. Inst. for Highway Safety, *supra* note 126 (follow "Are there drawbacks to helmet use?" hyperlink).

perceive useful sounds.<sup>168</sup> Some riders also argue that researchers manipulate the data to show the benefits of helmet use.<sup>169</sup> Many enthusiasts argue that, in spite of protective equipment, the rider is still at significant risk if an accident does occur, and efforts should therefore focus on accident prevention.<sup>170</sup> They argue that the focus should not be on helmet use, but rather on participation in safety and educational programs.<sup>171</sup>

Studies by the government support the importance of safety programs and also indicate that approximately 40% of fatal motorcycle accidents involve alcohol consumption.<sup>172</sup> Motorcycle groups acknowledge this fact and encourage alcohol awareness programs.<sup>173</sup> However, opponents of the helmet law, which include motorcycle groups, also assert the government's analyses of accident data do not accurately account for the effect of alcohol or drugs.<sup>174</sup> Finally, the motorcycle enthusiasts claim that approximately two-thirds of motorcycle accidents are caused by the driver of another vehicle, who fails to appropriately yield for the motorcyclist.<sup>175</sup> Campaigns to educate motorists and increase their awareness would help reduce the frequency of those types of motorcycle accidents, but, unfortunately, if an accident occurs the non-helmeted rider inevitably suffers more serious consequences than the helmeted rider.

## V. NON-HELMETED RIDERS AND THE COSTS TO SOCIETY

Public and private groups, in addition to studying morbidity and mortality related to helmet use, have examined the costs associated with motorcycle accidents and the relationship of those costs to helmet use. Studies have been done under the auspices of the United States government, and individuals have compiled state-wide data to study the effects of helmet use on motorcycle accident costs.

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168. *Id.* Many opponents also complain that helmets are too hot for summer. Lundegaard, *supra* note 52.

169. Lundegaard, *supra* note 52 (noting that one motorcycle enthusiast claims the government relied on data in which thousands of motorcycle registrations were missed).

170. Am. Motorcyclist Ass'n, AMA Position in Support of Voluntary Helmet Use, <http://www.amadirectlink.com/legisltn/positions/helmet.asp> (last visited Dec. 23, 2007).

171. *Id.*

172. LES R. BECKER ET AL., NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., DRINKING, RIDING, AND PREVENTION: A FOCUS GROUP STUDY, at i (2003), available at <http://www.nhtsa.dot.gov/people/injury/pedbimot/motorcycle/DrinkRidePrevent/DrinkRidePrevention.pdf>; Motorcycle Safety Found., Nat'l Highway Traffic Safety Admin., Motorcyclist Alcohol & Other Impairment, <http://www.nhtsa.dot.gov/people/injury/pedbimot/motorcycle/00-NHT-212-motorcycle/human25-26.html#top> (last visited Dec. 23, 2007).

173. Am. Motorcyclist Ass'n, *supra* note 170.

174. Hundley et al., *supra* note 5, at 944.

175. Am. Motorcyclist Ass'n, *supra* note 170.

### A. National Cost Data

The Crash Outcome Data Evaluation System (CODES) conducted under the auspices of NHTSA found that, over a one year period, the health care costs for riders suffering brain injuries were more than twice as much as the costs for motorcycle accident riders with non-brain related injuries.<sup>176</sup> NHTSA estimated the use of helmets saved approximately \$669 million in 1998, and if all motorcyclists had used helmets, an added \$454 million could have been saved.<sup>177</sup> NHTSA further estimated that, from 1984 to 1998, helmet use saved \$12.1 billion in costs, and if all motorcyclists had used helmets, \$10.4 billion more could have been saved.<sup>178</sup> One study examining motorcycle-related hospital discharges across the United States in 2001 found approximately one quarter of the cases were either "self-pay" or some type of government supported insurance.<sup>179</sup> Studies have been done in multiple states looking at data from those states to determine the effect of helmet use on costs of care provided. The percentage of non-helmeted motorcyclists involved in accidents requiring hospitalization varies from state to state, approximating 29% to 55%.<sup>180</sup>

### B. Cost Data from Individual States

Texas repealed its universal helmet law effective September 1, 1997.<sup>181</sup> The Texas Trauma Registry was used to obtain data regarding motorcycle accident

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176. SANDRA W. JOHNSON & JONATHAN WALKER, NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., THE CRASH OUTCOME DATA EVALUATION SYSTEM 71 (1996), available at <http://www-nrd.nhtsa.dot.gov/Pubs/808-338.PDF> (noting that the costs were 2.25 times higher for brain injured riders, and that long term costs were not included).

177. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 6.

178. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP'T OF TRANSP., TRAFFIC SAFETY FACTS 1998: MOTORCYCLES 5 (1998), available at <http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSF98/Overview98.pdf>.

179. Jeffrey H. Coben et al., *Motorcycle-Related Hospitalizations in the United States, 2001*, 27 AM. J. PREVENTIVE MED. 355, 359 (2004).

180. Mo. Dept. Health & Senior Servs., *Focus . . . Motorcycle Helmets Reduce Head Injuries and Hospitalizations*, MO. MONTHLY VITAL STATISTICS, June 2002, available at <http://www.dhss.mo.gov/FOCUS/june02.pdf>.

181. 1997 Tex. Gen. Laws 4358 (codified as amended at TEX. TRANSP. CODE ANN. § 661.003(c) (Vernon 1999 & Supp. 2006). Sen. Jerry Patterson, R-Pasadena, sponsored the bill which was signed into law by Governor George W. Bush. Mary Alice Robbins, *Motorcyclists May Have a Choice in Wearing Helmet*, LUBBOCK AVALANCHE J., Apr. 14, 1997, available at <http://www.lubbockonline.com/news/041597/motorcyc.htm>. Rep. Jim Pitts, R-Waxahachie, the chief supporter of the bill, said the bill was about freedom and "the right to choose for yourself whether you wear a helmet or not." *Id.* For the debate, Pitts carried a white helmet to the podium and read a warning label inside the helmet which stated that "no helmet can protect from all foreseeable impact or injuries." *Id.* Rep. David Counts, D-Knox City, also noted that if a person has "all the information, they can make informed decisions." Rep. Fred Hill, R-Richardson, unsuccessfully countered these views stating it was "common sense" that a person whose head struck a curb after a motorcycle accident would have a better chance of surviving if they wore a helmet. *Id.*

victims before and after the repeal.<sup>182</sup> From September through December 1996, approximately 94% of the riders admitted to Texas hospitals were helmeted, and the incidence of traumatic brain injury was 18%.<sup>183</sup> From September through December 1997, approximately 69% of riders admitted to the hospital were helmeted, and of those motorcyclists, 30% sustained brain injuries.<sup>184</sup> Comparing the time periods from 1996 and 1997, the average hospital cost per case increased 75% from \$18,418 to \$32,209.<sup>185</sup> For motorcyclists who did not sustain traumatic brain injuries, the average cost of treatment declined slightly from 1996 to 1997.<sup>186</sup>

An Arkansas study clearly demonstrated that the health care system incurs more costs because of accidents involving non-helmeted riders.<sup>187</sup> Overall, non-helmeted patients had more significant head and neck injuries than riders with helmets.<sup>188</sup> The length of stay in the intensive care unit for the non-helmeted riders was significantly longer than that of the riders with helmets.<sup>189</sup> The non-helmeted riders utilized more hospital resources, and the hospital received poorer reimbursements for their charges compared to those of helmeted riders.<sup>190</sup>

A Michigan study also revealed increased costs for non-helmeted riders.<sup>191</sup> Records for patients admitted to the University of Michigan Health System from July 1996 to October 2000 were reviewed, and information regarding injuries, length of stay, outcome, hospital cost, and insurance information was collected.<sup>192</sup> The non-helmeted riders had a significantly increased incidence of head injuries but not other injuries.<sup>193</sup> Hospitalization costs decreased by more than \$6,000 per patient because of the use of a helmet.<sup>194</sup>

The impact of a universal helmet law on cost was dramatically demonstrated in California, where there was a 53% drop in the number of motorcyclists hospitalized with brain injuries in the first year after the enactment.<sup>195</sup> The helmet law accounted for approximately an \$8 million drop in hospital charges paid by

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182. PRUESSER ET AL., *supra* note 66, at 31.

183. *Id.*

184. *Id.*

185. *Id.*

186. *Id.* at 31–32.

187. Bledsoe et al., *supra* note 100, at 1079–85. The study looked at data from the University of Arkansas for the three year period prior to the repeal of the universal helmet law in July 1997, and for a three year period after this date. *Id.* at 1079.

188. *Id.* at 1080–81.

189. *Id.*

190. *Id.* at 1085.

191. Mary-Margaret Brandt et al., *Hospital Cost is Reduced by Motorcycle Helmet Use*, 53 J. TRAUMA 469 *passim* (2002).

192. *Id.* at 469.

193. *Id.* at 470.

194. *Id.* at 470–71.

195. Straus, *supra* note 89, at 3 (noting that the drop was from 1,258 to 588 patients).

Medi-Cal (California's Medicaid Program) and other taxpayer sources from 1991 to 1992.<sup>196</sup> After the first two years of the law's enactment, California's total cost of medical care for motorcyclists injured in accidents dropped by 35%.<sup>197</sup> Of that decrease in cost, 73% was attributable to a reduction in costs for patients with brain injuries.<sup>198</sup>

A Wisconsin study also demonstrated the higher costs associated with head injuries sustained by non-helmeted riders, as opposed to helmeted.<sup>199</sup> The 1991 study involved motorcycle accidents in Wisconsin and provided data on the 545 riders who were hospitalized, and another 74 who died.<sup>200</sup> The riders that died included 55 non-helmeted riders and 19 helmeted riders.<sup>201</sup> Of the 545 riders who were hospitalized, 187 suffered a brain injury or a skull fracture.<sup>202</sup> Those that sustained head injuries included 153 non-helmeted riders and 34 helmeted riders.<sup>203</sup> In this group of 153 non-helmeted riders, 97 sustained brain injuries and incurred hospital charges of \$2,396,366, compared to \$333,619 in hospital charges for the seventeen helmeted riders with brain injuries.<sup>204</sup> Non-helmeted riders with brain injuries incurred an average hospital cost of \$24,705 as compared to the cost of \$19,624 incurred by helmeted riders with brain injuries.<sup>205</sup> Although wearing a helmet cannot prevent every head injury or death, the study concluded that eighty-one head injuries would have been prevented, if every rider had worn a helmet.<sup>206</sup> Increased societal costs were also noted in Maryland (which has a universal helmet law), where it is estimated that uninsured non-helmeted motorcycle accident victims cost taxpayers almost \$1.35 million annually, "compared to the helmeted victim's cost of \$80,025 in uncompensated care."<sup>207</sup>

There is hardly any data that disputes the findings of increased costs associated with non-helmeted riders. One theory suggests that the use of helmets actually leads to increased costs because riders who otherwise would have been

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196. *Id.* at 3 (noting that the drop was from \$17 million to \$11 million).

197. *Id.*

198. *Id.*

199. Ctrs. for Disease Control & Prevention, *Head Injuries Associated with Motorcycle Use – Wisconsin, 1991*, 43 MORBIDITY & MORTALITY WKLY. REP. 423, 429 (1994), available at <http://www.cdc.gov/MMWR/PDF/wk/mm4323.pdf>.

200. *Id.*

201. *Id.*

202. *Id.*

203. *Id.*

204. *Id.*

205. *Id.*

206. *Id.* at 430.

207. Press Release, Advocates for Highway & Auto Safety, Protect Maryland's Motorcycle Helmet Law (Feb. 10, 2005), [http://www.saferoads.org/ActionAlert/aa\\_MDHelmet2-15-05.htm](http://www.saferoads.org/ActionAlert/aa_MDHelmet2-15-05.htm).

killed survive, which leads to a considerable increase in hospital costs.<sup>208</sup> With that argument, the author of this theory seems to advocate that riders who do not wear helmets die to keep costs down. However, the premise for this argument has not been supported by the literature.<sup>209</sup> The data from the medical literature, as well as government and private studies, overwhelmingly show the increased costs to society caused by non-helmeted riders.<sup>210</sup>

## VI. ARGUMENTS AGAINST MANDATORY HELMET LAWS

Given the vast amount of data demonstrating the health benefit and cost savings associated with helmet use, what are the arguments against mandatory helmet laws? Motorcycle manufacturers often sidestep this debate, but note that the decision regarding helmet use should be made by the rider.<sup>211</sup> Helmet manufacturers, not surprisingly, have not used “scare tactics” to sell helmets, concerned that pushing helmet use may lead to a backlash by motorcyclists.<sup>212</sup> Many individuals, including most motorcycle enthusiasts, believe that the individual rider can best assess the risks and benefits of helmet use.<sup>213</sup> The average motorcyclist has an income above the national average, is approximately forty-two years old, has a college degree, and is either a skilled craftsman or works in a white-collar job.<sup>214</sup> The reasoning is that these are “responsible adults who should decide for themselves whether to wear a motorcycle helmet.”<sup>215</sup>

Thus, the argument frequently raised against mandatory helmet laws is the concept of individual freedom of choice. Overall, most motorcycle enthusiasts feel the use of a helmet is an individual choice affecting only the motorcycle rider.<sup>216</sup> Many encourage the use of helmets, but feel that, as an adult, the rider should have the right to make his or her decision based on his or her lifestyle.<sup>217</sup> The concept that an individual will make a wrong decision is a “lesser evil” than completely

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208. Philip Cole, Commentary, *The Moral Bases for Public Health Interventions*, 6 EPIDEMIOLOGY 78, 81 (1995).

209. *Id.* at 81–82.

210. *E.g.*, Knudson et al., *supra* note 1, at 263.

211. Lundegaard, *supra* note 52. Manufacturers state that they encourage riders to wear helmets, but also add that this is a choice for the individual consumer to make. Bob Klein, a Harley Davidson spokesperson, says “that riders should be able to exercise their own best judgment” and denies this view reflects a fear of alienating those riders opposing helmet use. *Id.*

212. *Id.*

213. Alliance of Bikers Aimed Toward Educ. of Pa., Position: Voluntary Helmet Use, <http://www.abatepa.org/abate/position-helmets.pdf>.

214. Leslie Reed, *Bills Kick-Start Fresh Tug-of-War on Helmet Law: Two Proposals Backed by Motorcyclists Prompt Widespread Opposition*, OMAHA WORLD-HERALD, Jan. 26, 2005, at A1.

215. *Id.*

216. NCRider.com, The Helmet Law Page, <http://www.ncrider.com/Helmet-Page.htm> (last visited Dec. 24, 2007).

217. Am. Motorcyclist Ass’n, *supra* note 170.

precluding the freedom of the individual to make the decision, particularly when the determination involves individual destiny.<sup>218</sup> An individual's dignity and autonomy remain intact by respecting the freedom to make a decision regarding the individual's own well being, even when that decision can lead to serious consequences.<sup>219</sup> The cost of preserving the individual's freedom is that the individual's choice may be irresponsible, bad, or wrong.<sup>220</sup> Furthermore, the constraint on an individual's "risk choices" can lead to a loss of dignity for that individual, and erode that individual's quality of life.<sup>221</sup> Some individuals may be more likely to engage in sensation-seeking or risk-taking behavior, and curtailing those pursuits may adversely affect those individuals.<sup>222</sup> The freedom to make one's own decisions regarding one's own risks is an important part of individual self-fulfillment and enjoyment of life.<sup>223</sup> By consenting to take a risk, the individual assumes the risk of personal injury.<sup>224</sup> Therefore, that choice by the individual should be given wide latitude, and any imposition by the state on that individual's choice should be subject to a high burden of justification.<sup>225</sup>

The argument continues that the legislature assumes a paternalistic role by implementing helmet laws, and is taking action in an attempt to protect the individual without that individual's consent.<sup>226</sup> This legislative action may be considered undesirable because it infringes on personal autonomy.<sup>227</sup> Although this particular limit on personal autonomy is arguably very small, there is the question of the cumulative effect of small intrusions and the broadening of the legislature's power over personal freedoms.<sup>228</sup> If the legislature requires motorcyclists to wear helmets, the question becomes why all unhealthy behavior is not subject to regulation.<sup>229</sup> The legislature may then decide that riding motorcycles is dangerous and should be outlawed.

It has also been alleged that this legislation violates the Fourteenth Amendment. Specifically, motorcycle enthusiasts have argued that the Due Process Clause of the Fourteenth Amendment provides protection from state infringement

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218. Linda C. McClain, *Rights and Irresponsibility*, 43 DUKE L.J. 989, 1072 (1994).

219. *Id.*

220. *Id.* at 1073.

221. Donald P. Judges, *Of Rocks and Hard Places: The Value of Risk Choice*, 42 EMORY L.J. 1, 20 (1993).

222. *Id.* at 23.

223. *Id.* at 26.

224. RESTATEMENT (SECOND) OF TORTS § 496B (1965).

225. Judges, *supra* note 221, at 26.

226. Cf. Eric Daniel Johnson, *Sounds of Silence for the Walkman Generation: Rock Concerts and Noise-Induced Hearing Loss*, 68 IND. L.J. 1011, 1019 (1993) (arguing that legislation should aim to control (rather than warn) rock concert decibel levels to protect the individual from loss of hearing).

227. *Id.*

228. *Id.* at 1026-27.

229. Cole, *supra* note 208, at 81.

on an individual's intimate and fundamental personal decisions by analogizing the right to choose to wear a helmet to reproductive decisions, such as decisions regarding the family structure, and the freedom of parents to control the education of their children.<sup>230</sup> Initially, the courts supported this view, but later reversed.<sup>231</sup> Courts distinguished the decision to wear a helmet while riding a motorcycle from the constitutional right to privacy, reasoning that "there [was] little that could be termed private in the decision . . . to wear safety equipment on the open road."<sup>232</sup> Additionally, courts have cited the more far-reaching purposes of helmet use laws, such as the costs that motorcycle injuries impose on the public, rather than simply justifying the law on the basis of protecting the individual.<sup>233</sup>

Freedom of choice regarding helmet use would likely be more palatable if society did not incur the enormous direct and indirect costs associated with non-helmeted riders involved in crashes.<sup>234</sup> Perhaps more personal freedom, such as the choice to wear a helmet or a seatbelt, would be allowed if people paid their own way and risk-taking individuals internalized the costs of their injuries.<sup>235</sup> But the costs of non-helmeted riders' injuries and deaths are not internalized, and billions of dollars are absorbed by the public in the form of higher taxes and lost taxes resulting from these injuries and deaths.<sup>236</sup> Consequently, society's social programs force a tax-funded subsidy that, in essence, infringes on the taxpayers' personal liberties. Because the public ultimately has to pay for the costs of motorcycle accidents, the public should have control over the conduct and the choices that directly impact the severity of the accidents. Motorcycle enthusiasts argue that the legal structure and societal structure should be arranged to accommodate the individual's choice regarding individual risk-taking activity.<sup>237</sup> Yet, when the injured individual cannot afford to pay for health care and there is no mechanism to internalize the cost, society is structured to help those individuals.<sup>238</sup>

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230. *E.g.*, *Picou v. Gillum*, 874 F.2d 1519, 1520–21 (11th Cir. 1989); *Simon v. Sargent*, 346 F. Supp. 277, 278 (D. Mass. 1972), *aff'd*, 409 U.S. 1020 (1972) (mem.).

231. *People v. Fries*, 250 N.E.2d 149, 150–51 (Ill. 1969), *overruled by* *People v. Kohrig*, 498 N.W.2d 1158, 1163–64 (Ill. 1986) (holding Illinois' mandatory motorcycle helmet law violated the Fourteenth Amendment of the U.S. Constitution); *Am. Motorcycle Ass'n v. Dep't of State Police*, 158 N.W.2d 72, 76–77 (Mich. Ct. App. 1968), *overruled by* *People v. Poucher*, 240 N.W.2d 298, 300 (Mich. Ct. App. 1976) (holding Michigan's mandatory motorcycle helmet statute is a violation of the Fourteenth Amendment because it serves to protect the mortorcyclist from himself, rather than to protect the health, safety, and welfare of the public).

232. *Picou*, 874 F.2d at 1520–21.

233. *E.g.*, *id.* at 1522; *Simon*, 346 F. Supp. at 279.

234. Knudson et al., *supra* note 1, at 263; *see also* Judges, *supra* note 221, at 129.

235. Judges, *supra* note 221, at 129.

236. Knudson et al., *supra* note 1, at 263.

237. *E.g.*, NCRider.com, *supra* note 216.

238. Knudson et al., *supra* note 1, at 263.



Still, motorcycle enthusiasts could argue that legislation regarding helmet use is unnecessary because the volume of non-helmeted motorcyclists sustaining head injuries is too small to justify the need for legislation. Motorcycle rider fatalities represent just 7.6% of the 42,815 people who died in traffic crashes in 2002.<sup>239</sup> However, motorcycle rider fatalities continually increased each year since 1997, and in 2003, there were 3,592 fatalities, which represented an increase of 11% from the previous year.<sup>240</sup> It could also be argued that the goal of legislation to prevent head injuries cannot be achieved because helmet use may prevent some, but not all, head injuries.<sup>241</sup> While societal costs related to accidents involving non-helmeted riders may be less than other costs, such economic consequences still impact society.<sup>242</sup>

## VII. THE NEED FOR MANDATORY HELMET LAWS

To some extent, the arguments regarding freedom of choice are ethereal in that they fail to account for the reality of the current societal structure. Given this current structure, paternalistic interventions such as helmet laws are legitimate, because riders who injure themselves by not wearing helmets impose costs on society's social welfare programs.<sup>243</sup> Also, it is highly unlikely that society will dismantle the current welfare system.<sup>244</sup> This is not to deny the existence of the freedom to choose risk-taking behavior or that this is a valid right.<sup>245</sup> Furthermore, to view a personal freedom as only affecting the individual is to ignore the fact that the non-helmeted rider will often have a spouse, child, or parent who will also suffer and impose costs on society in the event of the rider's injury or death.<sup>246</sup> That same rider may become dependent on his or her family and may require long-term rehabilitation or life-long care.<sup>247</sup> The majority of costs related to disabling and fatal injuries will likely be carried by society as a whole.<sup>248</sup> To allow motorcyclists

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239. *Older Motorcycle Riders Driving Death Rate Higher*, SENIOR JOURNAL.COM, Sept. 1, 2004, <http://seniorjournal.com/NEWS/SeniorStats/4-09-02Bikes.htm>.

240. *Id.*

241. *Cf.* Johnson, *supra* note 226, at 1021 (arguing that decibel level regulation at rock concerts will not achieve its goal of reducing noise-induced hearing loss (NIHL) since concerts are not the sole cause of NIHL).

242. Schuster, *supra* note 11, at 1393–95.

243. *See supra* Part V.B.

244. *E.g.*, Judges, *supra* note 221, at 129.

245. Pope, *supra* note 43, at 437.

246. MARY ANN GLENDON, RIGHTS TALK 45–46 (1991).

247. *Id.* at 46.

248. U.S. DEP'T OF HEALTH, EDUC. & WELFARE, HEALTHY PEOPLE: THE SURGEON GENERAL'S REPORT ON HEALTH PROMOTION AND DISEASE PREVENTION 9-20 (1979), *available at* [http://profiles.nlm.nih.gov/NN/B/B/G/K/\\_/nnbbgk.pdf](http://profiles.nlm.nih.gov/NN/B/B/G/K/_/nnbbgk.pdf).

the personal freedom of not wearing a helmet will result in higher taxes, higher insurance premiums, and increased health care costs.<sup>249</sup>

Courts eventually shifted gears in upholding motorcycle helmet laws.<sup>250</sup> The injury to the motorcyclist is not a victimless event insofar as it imposes a burden on society and a drain on medical resources.<sup>251</sup> The courts have recognized the negative externalities associated with injuries and deaths of non-helmeted riders and have justified helmet regulations on two levels. On the primary level, the individual is being protected from the poor choice of not wearing a helmet in a risky situation, and, on a secondary level, the broader interests of society are being protected.<sup>252</sup> In joining the effects on society with the direct effect on the individual, the courts have agreed to uphold the regulation of an otherwise personal choice.<sup>253</sup>

The goals of public health initiatives include ensuring the health of the public while limiting the power of the state to constrain the liberties and privacy of the individual.<sup>254</sup> Some may then question whether the non-helmeted rider is a public health threat, which justifies the use of state police powers.<sup>255</sup> According to a liberal philosophy, riding without a helmet should not be regulated as a public health issue because this activity does not affect others and thus belongs in the private, unregulated sphere.<sup>256</sup> The use of state powers is only necessitated to avert significant harm to others.<sup>257</sup> However, helmet laws not only protect the individual, they also protect society as a whole.<sup>258</sup> In the case of a motorcyclist colliding with a car, if the use of a helmet mitigates the severity of an injury that otherwise would have been fatal, the rider survives, and the driver of the car has not killed the rider.<sup>259</sup>

Helmet laws represent the use of state powers to avoid economic harm in the form of negative externalities.<sup>260</sup> The non-helmeted rider involved in an accident

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249. Schuster, *supra* note 11, at 1394.

250. See cases cited *supra* note 231.

251. Pope, *supra* note 43, at 436.

252. Simon v. Sargent, 346 F. Supp. 277, 279 (D. Mass. 1972), *aff'd*, 409 U.S. 1020 (1972) (mem.); see also Pope, *supra* note 43, at 437.

253. Simon, 346 F. Supp. at 279; Picou v. Gillum, 874 F.2d 1519, 1520–21 (11th Cir. 1989).

254. Mark A. Rothstein, *Rethinking the Meaning of Public Health*, 30 J.L. MED. & ETHICS 144, 146 (2002).

255. Lawrence O. Gostin, *When Terrorism Threatens Health: How Far are Limitations on Personal and Economic Liberties Justified?*, 55 FLA. L. REV. 1105, 1146 (2003).

256. *Id.*

257. *Id.*

258. People v. Poucher, 247 N.W.2d 798, 800 (Mich. 1976).

259. *Id.*

260. Gostin, *supra* note 255, at 1148 (“A negative externality is a ‘spillover harm’ that extends [beyond the initial event] and affects third parties, often innocent bystanders.”).

creates costs for himself, his family, and the public at large.<sup>261</sup> The paternalistic approach is further justified because helmet laws prevent a serious risk of injury while the interference with personal choice is minimal.<sup>262</sup> The probability of injury or death in any single motorcycle ride is low, but if the non-helmeted rider is injured then the cost to society is likely to be very high.<sup>263</sup> The cost of a helmet is low, and wearing a helmet is a minor burden. Additionally, the use of a helmet not only benefits the parties involved in the accident, but also society as a whole.<sup>264</sup>

### VIII. THE CURRENT FIGHT OVER UNIVERSAL HELMET LAWS

Despite the abundance of data regarding the benefits of universal helmet laws for riders and the decrease in costs associated with these laws, only twenty states and the District of Columbia have universal helmet laws.<sup>265</sup> Many Americans support universal helmet laws, but many motorcyclists do not, and motorcyclists have a powerful voice.<sup>266</sup> In the past several decades, the AMA has actively dealt with regulations regarding mandatory helmet use, maintaining that adults should have the right to voluntarily decide whether to wear a helmet.<sup>267</sup> Currently, the AMA has more than 270,000 members.<sup>268</sup> Anti-helmet activists have conducted high profile campaigns, which have included circling federal buildings on motorcycles and vigorous lobbying.<sup>269</sup> The AMA hosted a seminar in Washington, D.C. in March 2005 for motorcyclists who wanted to learn how to be influential in legislative decisions.<sup>270</sup> The ABATE group provides nationwide legal representation and accident investigation assistance twenty-four hours a day.<sup>271</sup>

#### A. *The Helmet Law Fight in Pennsylvania*

One example of the resourcefulness and success of the anti-helmet activists was the campaign run in Pennsylvania in 2003.<sup>272</sup> After decades of attempts, ABATE, a legal services organization that provides nationwide legal representation

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261. Knudson, et al., *supra* note 1, at 263.

262. Johnson, *supra* note 226, at 1024–25.

263. *Id.* at 1027.

264. *Poucher*, 247 N.W.2d at 800.

265. Ins. Inst. for Highway Safety, *supra* note 4.

266. Straus, *supra* note 89, at 3.

267. Am. Motorcyclist Ass'n, *supra* note 170.

268. *Id.*

269. Straus, *supra* note 89, at 3.

270. MotorcycleUSA.com, AMA News & Notes – November 2004, [http://www.motorcycle-usa.com/Article\\_Page.aspx?ArticleID=1564](http://www.motorcycle-usa.com/Article_Page.aspx?ArticleID=1564) (provided to MotorcycleUSA.com by AMADirectlink.com) (last visited Dec. 21, 2007).

271. Abate Legal Services, Lawyers Who Ride!, <http://www.abatelegal.com> (last visited Dec. 21, 2007).

272. Lundegaard, *supra* note 52.

and accident investigation assistance for motorcyclists,<sup>273</sup> successfully influenced the legislature to repeal the state's universal helmet law.<sup>274</sup> In 2001, the organization hired a lobbyist, Charles Umbenhauer, a retired federal worker and a long time motorcyclist.<sup>275</sup> He coordinated motorcyclists to contact legislators.<sup>276</sup> Ed Rendell, the former mayor of Philadelphia, had become familiar with ABATE because the group annually donated thousands of toys to the Children's Hospital of Philadelphia.<sup>277</sup> In 2003, as the newly elected Governor of Pennsylvania, Rendell agreed to speak at an ABATE rally and promised to sign a law allowing experienced riders over twenty-one years old to ride without a helmet.<sup>278</sup> According to several lawmakers, they were contacted by many more anti-helmet activists than by individuals in favor of the universal helmet law.<sup>279</sup>

### B. *The Helmet Law Fight in Other States*

In West Virginia, which currently has a universal helmet law,<sup>280</sup> Governor Joe Manchin is known for riding motorcycles and regularly attends a large motorcycle rally in North Dakota.<sup>281</sup> State Senate Majority Leader and motorcyclist, Truman Chafin, sponsored a bill to repeal the universal helmet law.<sup>282</sup> Chafin argued that Manchin added credence to the debate, and if the Governor pushed for the bill, it would likely pass.<sup>283</sup> Nebraska State Senator Adrian Smith has also sponsored a bill to repeal the state's universal helmet law.<sup>284</sup>

### C. *Tourism Dollars and the Helmet Law Fight*

Another factor that is likely impacting states' decisions regarding helmet laws is the relationship of helmet laws to tourism dollars. The bulk of tourism dollars from motorcyclists goes to states without universal helmet laws.<sup>285</sup> The four major motorcycle rallies in the country include Sturgis, Laconia, Bike Week, and Biketoberfest.<sup>286</sup> All four are held in states without universal helmet laws.<sup>287</sup> The

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273. Abate Legal Services, *supra* note 271.

274. Lundegaard, *supra* note 52.

275. *Id.*

276. *Id.*

277. *Id.*

278. *Id.*

279. *Id.*

280. W. VA. CODE ANN. § 17C-15-44 (LexisNexis 2004).

281. Tom Searls, *Legislators Pull Back Bond Election Bill*, CHARLESTON GAZETTE & DAILY MAIL (Charleston, W. Va.), Feb. 26, 2005, at 6A, available at 2005 WL 3041789.

282. S. 293, 2005 Leg., 77th Sess. (W. Va. 2005).

283. Searls, *supra* note 281.

284. S. 69, 2005 Leg., 99th Sess., (Neb. 2005).

285. NCRider.com, *supra* note 216.

286. *Id.*

Myrtle Beach Bike Week, a rally hosted by South Carolina, attracts approximately 400,000 riders to the state.<sup>288</sup> According to some authorities, the average rider spends about \$1,500 during this bike week.<sup>289</sup> This represents approximately \$600 million spent by tourists in South Carolina during Bike Week.<sup>290</sup> In contrast, North Carolina, which has a universal helmet law,<sup>291</sup> cannot compete with the “pro-choice” states.<sup>292</sup> The largest rally in North Carolina is only able to attract approximately 20,000 riders.<sup>293</sup> In 2005, when West Virginia introduced a bill to repeal the universal helmet law, tourism dollars were noted as a factor.<sup>294</sup> Jon Amores, a motorcyclist and the House Judiciary Chairman, stated that it was becoming harder each year to not back a repeal of the law because it had become an issue of tourism.<sup>295</sup>

#### *D. The Federal Government and Helmet Laws*

Presently, the Department of Transportation (DOT) does not have a program that actively promotes the enactment of universal helmet laws by states, but does employ an unofficial policy encouraging such laws.<sup>296</sup> The department continues to perform and fund research regarding motorcycle helmet use.<sup>297</sup> They also continue to sponsor the national Motorcycle Awareness Month.<sup>298</sup> The requirement for mandatory helmet use appears to be a state issue, with much less intervention by the federal government since its repeal of the Highway Safety Act.<sup>299</sup> This lack of intervention by the federal government to provide incentives to the states to enact universal helmet laws may be because less than 1% of United States health care costs are attributable to motorcycle accidents.<sup>300</sup> Since only a portion of these costs are related to non-helmeted riders, the federal government may have better uses for state incentive funding.

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287. *Id.*

288. *Id.* (noting that South Carolina does not have a universal helmet law).

289. *Id.*

290. *Id.*

291. N.C. GEN. STAT. § 20-140.4(a)(2) (2006), *amended by* 2007-360 N.C. Adv. Legis. Serv. 547, 550-51 (LexisNexis 2007) (requiring that helmets have a retention strap).

292. NCRider.com, *supra* note 216.

293. *Id.*

294. S. 293, 2005 Leg., 77th Sess. (W. Va. 2005); Searls, *supra* note 281.

295. Searls, *supra* note 281.

296. Straus, *supra* note 89, at 3.

297. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP'T OF TRANSP., IMPLEMENTATION GUIDE: NATIONAL AGENDA FOR MOTORCYCLE SAFETY 20 (2006), <http://www.nhtsa.dot.gov/people/injury/pedbimot/motorcycle/NAMS2006/images/ImplementationGuide.pdf>; *see also* Straus, *supra* note 89, at 3.

298. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 297, at 35-36.

299. *See supra* Part II.

300. Am. Motorcyclist Ass'n, *supra* note 170.

Another reason why most states do not support universal helmet laws may be due to cultural perceptions. Motorcycle enthusiasts are commonly viewed in this country as adventurers, risk-takers, and individuals somewhat outside the norm. The majority of adult Americans do not ally themselves with motorcyclists and cannot identify with the motorcyclists' image as free spirits riding unhampered in the breeze. Most adults do not own motorcycles.<sup>301</sup> In contrast, most adults do own automobiles, and they most likely can identify both with driving an automobile on a daily basis and the importance of driving safely.<sup>302</sup> Unlike universal helmet laws, seatbelt laws have been accepted almost universally,<sup>303</sup> and these cultural perceptions may play a role in drawing the analogy of the acceptance of seatbelt laws in the United States compared to the resistance to universal helmet laws in state legislatures.

#### IX. SOLUTIONS: ENCOURAGING THE USE OF MOTORCYCLE HELMETS

The most effective method of preventing brain injuries and death as a result of motorcycle accidents has been the enactment of universal helmet laws.<sup>304</sup> However, motorcycle enthusiasts have successfully organized to repeal existing laws and prevent their enactment in states without helmet laws.<sup>305</sup> The enactment of these laws will likely require the mobilization of advocates from across the states in the form of a broad-based coalition.<sup>306</sup> This coalition would likely include hospitals, managed care organizations, and state Medicaid officials, along with others necessary to actively campaign for the legislation. Engendering the support of citizens would require an aggressive education program and a campaign to urge citizens to contact their legislators.<sup>307</sup> It is likely that a well-funded, orchestrated

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301. Fed. Highway Admin., U.S. Dep't of Transp., State Motor-Vehicle Registrations 2000 (Oct. 2001), <http://www.fhwa.dot.gov/ohim/hs00/mv1.htm> (last visited Dec. 22, 2007) (noting that in 2000 there were just under 4.5 million registered motorcycles in the United States out of the total 221.5 million registered motor vehicles).

302. Leslie Miller, *We Could See It Coming: Vehicles in U.S. Now Outnumber Drivers*, GRAND RAPIDS PRESS (Mich.), Aug. 30, 2003, at A11, available at 2003 WLNR 13816991 (noting that in 2003 there were 107 million households in the United States, and each had an average of 1.9 automobiles, sports utility vehicles or trucks with an average of 1.8 drivers per household; this meant there were approximately 204 million vehicles and 191 million drivers).

303. Nat'l Highway Traffic Safety Admin., U.S. Dep't of Transp., States With Primary Safety Belt Laws, [http://www.nhtsa.dot.gov/people/outreach/state\\_laws-belts04/safeylaws-states.htm](http://www.nhtsa.dot.gov/people/outreach/state_laws-belts04/safeylaws-states.htm) (noting that as of July 2004, New Hampshire was the only state without a seatbelt law for adults) (last visited September 19, 2007).

304. Knudson et al., *supra* note 1, at 263.

305. Cheryl L. Pinkerton, *Civil Liberties, Survey of Legislation 1997 Arkansas General Assembly*, 20 U. ARK. LITTLE ROCK L.J. 415, 419 (1998).

306. See NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 10 (discussing efforts that were necessary in Georgia to increase safety belt use).

307. See *id.*

campaign would be necessary to enact a universal helmet law and overcome opposition from the politically active motorcycle enthusiast organizations.

Education regarding the effectiveness of helmet use may help increase use, especially among novice riders.<sup>308</sup> High school driver education classes should devote some time to motorcycle safety and helmet use. Most states have state-funded motorcycle education programs for individual enrollment.<sup>309</sup> DOT also helps fund state highway safety grants, educational programs, and research regarding motorcycle helmet use.<sup>310</sup> The AMA is also actively involved in developing and providing motorcycle rider education programs.<sup>311</sup>

Another possible means of encouraging the use of helmets is through the court system. For instance, courts decide if evidence of helmet use should be admitted to mitigate damages.<sup>312</sup> In the case of a non-helmeted plaintiff motorcyclist injured during an accident, there are currently no states that statutorily prohibit the admission of evidence regarding helmet use.<sup>313</sup> Most courts that have confronted this issue have not created a common law duty to wear a helmet.<sup>314</sup> Some courts have based this decision on the fact that neither Congress nor their state legislature has passed a law mandating helmet use. For example, in *Cordy v. Sherwin Williams Co.*, a New Jersey court held that, because the state did not require adult helmet use, the plaintiff had no notice that it was unreasonable to ride a motorcycle while not wearing a helmet.<sup>315</sup> The court prohibited the defendant from offering evidence to establish that the plaintiff's failure to wear a helmet caused or worsened the plaintiff's injury.<sup>316</sup> Consequently, the court ordered the defendant to pay the full damages amount, reasoning that the plaintiff had no duty to wear a helmet to minimize his injuries.<sup>317</sup>

Some courts have been torn between the traditional principal of tort law requiring the negligent tortfeasor to take the plaintiff as he finds him, and the larger principal of equity that dictates the tortfeasor should not be responsible for negligent acts of the plaintiff.<sup>318</sup> This conflict has been resolved in some

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308. eMedicineHealth.com, *Bicycle and Motorcycle Helmets: Increasing Helmet Use*, [http://www.emedicinehealth.com/bicycle\\_and\\_motorcycle\\_helmets/article\\_em.htm](http://www.emedicinehealth.com/bicycle_and_motorcycle_helmets/article_em.htm) (follow "Increasing Helmet Use" hyperlink) (last visited Dec. 22, 2007).

309. Melissa Savage & Irene Kawanabe, Nat'l Conference of State Legislatures, *Motorcycle Safety* (July 2001), <http://www.ncsl.org/programs/transportation/899trnrvt.htm>.

310. 23 C.F.R. § 1350 (2007).

311. Am. Motorcyclist Ass'n, *supra* note 3.

312. Schuster, *supra* note 11, at 1395.

313. *Id.*

314. *Id.*

315. 975 F. Supp. 639, 647 (D.N.J. 1997).

316. *Id.* at 649.

317. *Id.*

318. Schuster, *supra* note 11, at 1396-97.

jurisdictions by allowing the helmet defense and represents a growing trend.<sup>319</sup> Courts that allow the helmet defense have stressed three main policies.<sup>320</sup> First, by not wearing a helmet the plaintiff has chosen not to conform to a reasonable standard of care, and should take responsibility for his or her choice.<sup>321</sup> Second, permitting a helmet defense will encourage the use of helmets.<sup>322</sup> Third, the reasonable person understands that there is some likelihood of having an accident while riding a motorcycle, and therefore, reasonable measures should be taken to prevent an accident and to minimize any damages associated with one.<sup>323</sup>

Additionally, in establishing a common law duty to wear a helmet, courts do not have to defer to the legislature to create a duty.<sup>324</sup> Traditionally, actions in negligence have largely been governed by common law and not statutes.<sup>325</sup> The motorcyclist has a common law duty to exercise care regarding his or her own safety, and the automobile driver defendant has the right to assume the motorcyclist will exercise that reasonable care.<sup>326</sup> The burden of wearing a helmet is minimal; it requires little time and effort, and its costs are insignificant.<sup>327</sup> The lack of a state helmet law should not eliminate the common-law standard of conduct which every motorcyclist must obey.<sup>328</sup>

Consequently, the line of reasoning used by the *Cordy* court has been subject to much criticism.<sup>329</sup> Failure to wear a helmet does not cause an injury, but failure to wear a helmet may contribute to the injuries sustained by the plaintiff. Therefore, failure to wear a helmet is relevant to the issue of damages.<sup>330</sup> Some courts have been willing to allow such evidence to be considered on the basis of scientific

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319. *E.g.*, *Rodgers v. Am. Honda Motor Co.*, 46 F.3d 1, 3 (1st Cir. 1995) (affirming the lower court's decision to allow evidence of the driver's failure to wear a helmet at the time of an all-terrain vehicle accident where the driver sustained head injuries); *Nunez v. Schneider Nat'l Carriers*, 217 F. Supp. 2d 562, 570 (holding that the defendant could introduce evidence of decedent's failure to wear a helmet to prove decedent's comparative negligence and reduce damages).

320. Schuster, *supra* note 11, at 1400.

321. *Id.*; *e.g.*, *Warfel v. Cheney*, 758 P.2d 1326, 1329 (Ariz. Ct. App. 1988) ("[A] helmetless rider who is injured and brings an action to recover in tort must bear the consequence of the free choice not to wear a helmet by reduction of damages.").

322. *E.g.*, *Nunez*, 217 F. Supp. 2d at 568 ("Permitting evidence of helmet nonuse in order to reduce damages also serves to encourage the voluntary use of helmets . . ."); Schuster, *supra* note 11, at 1400.

323. *Law v. Super. Ct.*, 755 P.2d 1135, 1140 (Ariz. 1988) ("[A]s a matter of public policy . . . the law must recognize the responsibility of every person to anticipate and take reasonable measures to guard against the danger of motor vehicle accidents that are not only foreseeable but virtually certain to occur sooner or later."); Schuster, *supra* note 11, at 1400.

324. Schuster, *supra* note 11, at 1413.

325. *Id.*

326. *Graham*, *supra* note 44, at 247-48.

327. *Id.* at 252.

328. *Id.* at 253.

329. *See supra* notes 315-17 and accompanying text.

330. *Nunez v. Schneider Nat'l Carriers, Inc.*, 217 F. Supp. 2d 562, 565 (D.N.J. 2002).



testimony that explains the causes of the injuries.<sup>331</sup> This could lead to a battle of the experts regarding to what extent a plaintiff's head injury is attributable to not wearing a helmet.<sup>332</sup> But advances and developments in medicine and forensic science allow an expert to address the separate causes of head injuries that occurred during a motorcycle accident.<sup>333</sup> A common law duty to wear a helmet has been upheld in some jurisdictions.<sup>334</sup> In particular, the defense has been allowed in states without mandatory helmet laws.<sup>335</sup> For example, in Arizona, although there was no state universal helmet law, the court still permitted the admission of evidence to show that injuries could have been reduced by helmet use.<sup>336</sup>

In states that allow helmet use to be a factor in determining damages, the defendant must prove that the plaintiff's injuries could have been reduced or eliminated had the plaintiff been wearing a helmet.<sup>337</sup> This must be established by the defendant even if the plaintiff admits to not wearing a helmet.<sup>338</sup> The use of the helmet defense does not apply to the issue of liability but only to the issue of reduction of damages.<sup>339</sup> Given the trend toward the repeal of state universal helmet laws and the successful involvement of motorcycle enthusiasts in the state legislative process, it is unlikely that those states without universal helmet laws will change course and enact such laws in the near future. Courts may be able to create an incentive for motorcyclists to wear helmets by upholding non-helmet use as a factor to consider when apportioning damages.<sup>340</sup>

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331. *E.g.*, *Stehlik v. Rhoads*, 645 N.W.2d 889, 906 (Wis. 2002) (Abrahamson, C.J., concurring) ("The damages are divisible in the present case when expert testimony is offered to show that a part of the plaintiff's total injuries was caused by the accident and a part by the failure to wear a helmet."); Schuster, *supra* note 11, at 1396.

332. Schuster, *supra* note 11, at 1399.

333. *Id.* at 1401.

334. *E.g.*, *Stehlik*, 645 N.W.2d at 897 ("[T]he common law duty of ordinary care for one's own safety can encompass the use of a safety helmet while operating or riding an ATV."); Schuster, *supra* note 11, at 1400.

335. *Nunez*, 217 F. Supp. 2d at 570.

336. *Warfel v. Cheney*, 758 P.2d 1326, 1332 (Ariz. Ct. App. 1988).

337. *E.g.*, *id.* ("[D]efendants must also produce evidence showing what portion of the injuries sustained by plaintiff was attributable to helmet nonuse."); *Nunez*, 217 F. Supp. 2d at 569 (allowing evidence of nonuse of a helmet in determining damages if there is evidence demonstrating that the failure to do so contributed to the plaintiff's injuries).

338. *Cf. Vredevelde v. Clark*, 504 N.W.2d 292, 298 (Neb. 1993) ("Although plaintiff testified at trial she was not wearing a seatbelt at the time of the accident, defendant presented no evidence demonstrating the injuries sustained by plaintiff were attributable to her failure to wear the seatbelt in the rear-end collision."); Schuster, *supra* note 11, at 1401.

339. *Halvorson v. Voeller*, 336 N.W.2d 118, 119 (N.D. 1983) ("Ordinarily, evidence of nonuse of a helmet has no relevance to the *issue of liability* for causing an accident; that is, seldom, if ever, will the fact that a person did not wear a protective helmet contribute to the cause of an accident. Nonuse of a helmet, may, however, in many instances be a contributing cause to the *injuries* sustained, and therefore be relevant to the *issue of damages*.") (citation omitted); Schuster, *supra* note 11, at 1401.

340. Schuster, *supra* note 11, at 1414–15.

Another method to address the increased costs associated with accidents involving non-helmeted riders is to reform the health insurance requirements for motorcyclists.<sup>341</sup> For instance, Florida's law allows riders over twenty-one years old with a minimum of \$10,000 in medical benefits for motorcycle accidents to ride without a helmet.<sup>342</sup> However, this amount of coverage is likely insufficient, because generally the average cost for hospitalization after a motorcycle accident far exceeds this amount.<sup>343</sup> Logically, then, the minimum amount should be increased. This could be accomplished through legislation and would likely require the support of many medical organizations to be successfully implemented. Given the recent poor success rate of pro-helmet laws, this type of legislation will likely face an uphill battle.

In 2003, New Mexico state Senator Allen Hurt proposed a bill stating that any "person operating a motorcycle without a helmet and who, as a result of an accident, is pronounced brain dead . . . by a licensed physician shall become an organ donor regardless of whether the person made an anatomical gift by completing the organ donor statement."<sup>344</sup> New Mexico's helmet law requires helmet use only by riders seventeen years of age and younger.<sup>345</sup> The bill specifically targeted non-helmeted motorcyclists who died as a result of a motorcycle accident and excluded those dying in car accidents.<sup>346</sup> Arguably, the purpose of the bill was to encourage helmet use by riders. The AMA rapidly organized resistance to the bill citing organ donation as a noble cause, but stating that the decision must remain in the individual's hands.<sup>347</sup> New Mexico officials received more than 1,100 e-mails from the AMA, and the bill was withdrawn.<sup>348</sup> The motorcyclists' victory further demonstrated the power of the motorcycle lobby.<sup>349</sup>

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341. Commentary, *It's Time to Require Insurance for All Motorcycle Riders*, TAMPA TRIBUNE, Feb. 13, 2005, at 2, available at 2005 WLNR 13848911.

342. FLA. STAT. ANN. § 316.211(b) (West 2006 & Supp. 2007).

343. See *supra* notes 204–05 and accompanying text.

344. S. 239, 2003 Leg., 46th Sess. (N.M. 2003); Am. Motorcyclist Ass'n, Riders Nationwide Join AMA Outrage over Mandatory Organ-Donor Legislation for Motorcyclists (Jan. 31, 2003), <http://www.ama-cycle.org/news/2003/outrage.asp>.

345. N.M. STAT. ANN. § 66-7-356.A (LexisNexis 2004).

346. N.M. S. 239.

347. Am. Motorcyclist Ass'n, *supra* note 344.

348. Press Release, Am. Motorcyclist Ass'n, New Mexico Senator Bows to Pressure from Motorcyclist, Withdraws Outrageous Legislation (Feb. 3, 2003), <http://home.ama-cycle.org/newsroom/amarelease.asp?num=A03002>.

349. *Id.*

## CONCLUSION

There is overwhelming evidence that helmet laws lead to a reduction in head injuries, as well as deaths due to head injuries, and that non-helmeted riders suffer injuries in motorcycle accidents that generate enormous direct and indirect costs to society.<sup>350</sup> Such costs include ambulance and police services along with hospitalization, which are largely provided by state and local governments at the public's expense.<sup>351</sup> If the motorcyclist is severely injured, he or she may require public aid for the rest of his or her life.<sup>352</sup> The pro-motorcyclist argument that helmet use is a choice for each individual fails to account for the societal costs associated with the decision not to wear a helmet. As Professor Lawrence Tribe has stated, "in a society unwilling to abandon bleeding bodies on the highway, the motorcyclist or driver who endangers himself plainly imposes costs on others."<sup>353</sup>

These increased costs can be prevented by enacting universal helmet laws in all states, but this goal is easier said than done. The motorcycle lobby has proven to be very powerful.<sup>354</sup> While health care providers and epidemiologists acknowledge the benefit of helmet use,<sup>355</sup> a concerted, organized effort by these individuals is necessary to defeat the motorcycle lobby and enact state helmet laws. Perhaps this effort currently lacks force because of the other problems confronting the health care system and public health fields. Enacting helmet laws requires a concerted effort in every state without a helmet law to raise adequate financing and focus the media's and the public's attention on the benefits of helmet use. Additionally, support is needed to increase the inadequate, minimum insurance coverage limits that many states have in their helmet use laws.

Courts can also help increase helmet use by adopting a common law duty to wear a helmet.<sup>356</sup> The creation of this duty would encourage riders to wear helmets or would allow a defendant to raise a helmet defense that could mitigate the damages awarded to the motorcyclist. Courts are not required to defer to the legislature to create such a duty and, by creating a socially efficient rule and providing a more equitable apportionment of damages, the use of helmets will be encouraged.

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350. Knudson et al., *supra* note 1, at 263.

351. Picou v. Gillum, 874 F.2d 1519, 1522 (11th Cir. 1989).

352. *Id.*

353. LAWRENCE H. TRIBE, AMERICAN CONSTITUTIONAL LAW § 15-12, at 1371-72 (2d ed. 1988).

354. See *supra* notes 289-94 and accompanying text.

355. Am. Med. Ass'n, *supra* note 344.

356. See *supra* notes 318-40 and accompanying text.