

DRIVING WHILE DISTRACTED: HOW SHOULD LEGISLATORS REGULATE CELL PHONE USE BEHIND THE WHEEL?

*Dusty Horwitt**

I. INTRODUCTION

One of the hottest legislative topics in recent months has been whether to ban or regulate the use of cellular phones while driving. In 2001, forty-three states, the District of Columbia, and Puerto Rico considered legislation regarding cell phone use on the road, with most states contemplating at least some bills to restrict such use.¹ The most prominent of these bills was New York's ban on the use of hand-held cell phones while driving, enacted on June 28, 2001.² Although New York became the first state to take such action, it joined several localities³ and at least twenty-four countries⁴ that had already restricted the use

* Candidate for J.D., Georgetown University Law Center, 2002.

1. MATT SUNDEEN, CELL PHONES AND HIGHWAY SAFETY 3 (Nat'l Conference of State Legislatures, 2001 State Legislative Update), available at <http://www.ncsl.org/programs/es..r/01cellphupd.pdf>.

2. S.B. 5400, 2001 Leg., 224th Sess. (N.Y. 2001) (codified at N.Y. VEH. & TRAF. LAW § 1225-c (McKinney Supp. 2001)). See generally *infra* note 160 (quoting portions of the new law).

3. These localities include Brookline, Massachusetts; Santa Fe, New Mexico; Marlboro and Carteret, New Jersey; Suffolk, Nassau, and Westchester Counties in New York; Brooklyn, Ohio; Conshohocken, West Conshohocken, Lebanon, and Hilltown Township, Pennsylvania; and Sandy, Utah. SUNDEEN, *supra* note 1, at 14. A Bucks County judge has since struck down Hilltown Township's ordinance for conflicting with a state law that requires uniform driving laws throughout Pennsylvania. Laurie Mason, *Judge Strikes Down Cell-Phone Driving Ban*, LEGAL INTELLIGENCER (Suburban Edition), July 19, 2000, at 5, available at LEXIS, News, Legal Intelligencer.

4. Telephone Interview with Irene Kawanabe, Policy Associate, National Conference of State Legislatures (Sept. 7, 2001). According to the National Conference of State Legislatures' August 2001 report on cell phone use and highway safety:

Israel, Japan, Portugal and Singapore prohibit all mobile phone use while driving. Australia; Brazil; Chile; Denmark; Germany; Greece; Hungary; Italy; Poland; the Philippines; Romania; Slovenia; South Africa; Spain; Switzerland; Turkey; New Delhi, India; and Hong Kong prohibit the use of hand-held mobile phones while driving. Drivers in the Czech Republic, France, the Netherlands and the United Kingdom may use cell phones, but can be fined if they are involved in crashes while using the phone. Drivers in the United Kingdom and Germany also can lose insurance coverage if involved in a crash while talking on the phone.

SUNDEEN, *supra* note 1, at 15.

of cell phones and other wireless technology behind the wheel.

Current laws typically ban the use of hand-held cell phones, except for emergency calls and calls made from a vehicle that is stopped,⁵ but they generally permit the use of hands-free cell phones, which allow drivers to keep both hands on the steering wheel while they talk.⁶ This Note examines the wisdom of these laws, and of attempts to regulate cell phone use behind the wheel in general.

The examination begins in Part II, which discusses the dangers of talking on a cell phone while driving; it includes an analysis of crash statistics, anecdotal evidence, and scientific studies regarding the use of cell phones on the road. The next two sections focus on potential ways to address the problem: Part III questions whether the tort system is likely to be an effective deterrent to cell phone use while driving, and Part IV examines the role of regulation and education in preventing cell phone-related accidents. Part V, in which it is assumed that at least some legislation is needed in this area, discusses whether legislators should ban only the use of hand-held cell phones while driving or whether they should expand the scope of legislation to reach all cellular technologies in automobiles. Thereafter, Part VI looks at several arguments against restricting the use of cell phones on the road, and Part VII discusses what type of emergency calls might need to be exempted from restrictions on cell phone use. Finally, Part VIII discusses possible responses to other distractions on the road.

Utilizing the framework set out above, this Note will demonstrate that current cell phone laws are a step in the right direction, but that they probably do not go far enough. There is compelling evidence that simply talking on the phone is a dangerous distraction for drivers, whether the phone is hand-held or hands-free. Indeed, banning only hand-held phones may be counterproductive because it may send an unintended message that it is safe to talk on a hands-free phone while driving. Thus, legislators should consider banning the use of all telephones on the road, except in emergency situations. Lawmakers should also consider how to define emergency exemptions in cell phone legislation so that drivers cannot abuse such provisions. Finally, legislators may want to direct police to stop drivers for any potentially distracting activity: cell phone use is by no means the only distraction that can lead to accidents, and the increasing use of other technologies in cars may outstrip legislation directed at cell phones and other specific technologies.

5. See, e.g., Res. No. 865-2000, 2000 Leg. (Suffolk County, N.Y. 2000). The regulation passed on October 27, 2000 and became effective on January 1, 2001.

6. See, e.g., *id.* § 3; N.Y. VEH. & TRAF. LAW § 1225-c(1), (3).

II. IS IT DANGEROUS TO DRIVE WHILE TALKING ON THE PHONE?

There is some uncertainty involved in the debate over whether to regulate the use of cell phones on the road because it is unclear how many accidents are cell phone-related. The cellular phone industry strongly suggests that very few accidents involve cell phone use.⁷ To this end, the industry website provides statistics from the National Highway Transportation Safety Administration's (NHTSA) Fatal Accident Reporting System (FARS). The numbers show that out of 53,343 drivers involved in fatal accidents in 1993, cell phone use was a "driver-related factor" for only 28 (.052 of 1%).⁸ In contrast, 11,019 cases involved "driving too fast" and 3402 cases involved "inattentiveness."⁹ In the NHTSA's 1994 FARS report, the agency found that cell phone use was a "possible distraction inside the vehicle" in just 36 of the approximately 40,000 crashes involving fatalities.¹⁰ In 1995, the NHTSA reported that cell phone use was a possible distraction in just 40 out of approximately 40,000 fatal crashes.¹¹

Yet these statistics are probably not accurate. One significant problem with the numbers is that, until 1999, Minnesota and Oklahoma were the only two states to require police officers to note cell phone use on crash reports.¹² Thus, it

7. See Cellular Telecommunications Industry Association, *Frequently Asked Questions & Fast Facts: Wireless Phones & Driving Safety*, at <http://www.wow-com.com/consumer/faq/articles.cfm?ID=95> (last visited Oct. 30, 2001).

8. Cellular Telecommunications Industry Association, *Frequently Asked Questions & Fast Facts: Wireless Phones & Driving Safety*, at http://www.wow-com.com/consumer/faqs/faq_driving.cfm (visited Nov. 21, 2000). The 1993 statistics were available on the industry site last year, but the site has since been updated to reflect the 1999 numbers. It currently reads:

The National Highway Traffic Safety Administration Fatal Accident Reporting System (FARS) tells us that for the 41,611 fatal accidents in 1999, only 54 listed wireless phone use as a "driver related factor." These 54 cases represent little more than one-tenth of one percent (.13 of 1 percent). This compares to 10,384 cases of "driving too fast for conditions or in excess of the posted maximum speed limit," 1,322 instances of "drowsy, asleep, sleepy or fatigued," drivers and 3,066 fatal crashes where "inattentiveness (talking, eating, etc.)" was cited as a driver related factor, among others. Note: a "driver related factor" is not the cause of an accident, but a factor which is reported (among others) by police that may have played a role in an accident.

Cellular Telecommunications Industry Association, *supra* note 7.

9. *Id.*

10. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEPT. OF TRANSP., AN INVESTIGATION OF THE SAFETY IMPLICATIONS OF WIRELESS COMMUNICATIONS IN VEHICLES 50 (1997), available at <http://www.nhtsa.dot.gov/people/injury/research/wireless/index.html>.

11. *Id.*

12. See NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 10, at 50; Kawanabe, *supra* note 4. This fact becomes significant if one considers that the FARS statistics are based on police crash reports from all fifty states and the District of Columbia. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 10, at 50.

is not surprising that Oklahoma crashes accounted for 21 of FARS's 36 cell phone-related fatalities in 1994 and 26 of FARS's 40 cell phone-related deaths in 1995.¹³ In comparison, New York and New Jersey contributed a combined total of one cell phone-related crash death to the 1994 and 1995 FARS figures.¹⁴ If all states, and particularly states with densely populated urban areas, kept statistics on cell phone-related crashes, the FARS numbers might be more accurate. Irene Kawanabe, a policy associate at the National Conference of State Legislatures, said that as of September 2001, at least twenty states collected information about cell phone use on police crash reports.¹⁵

However, even if every state kept statistics on cell phone-related crashes, the states would probably fail to count many such accidents. Oklahoma officers, for example, are trained to look for phones inside cars that have been involved in crashes.¹⁶ If an officer sees a phone, he will note on an accident report form that there is a phone "installed" in the car.¹⁷ The officer will then ask if the driver was using the phone at the time of the crash.¹⁸ If the driver says yes, the officer will note that a phone was "in use" at the time of the crash.¹⁹ Nevertheless, the vast majority of hand-held phones are small and may be difficult to see,²⁰ and many drivers may not be eager to admit that they were talking on their phones at the time of a crash.²¹ Because of these problems, law enforcement officers agree that witnesses are the best sources for determining whether a driver was using a cell phone at the time of a crash; because witnesses are often unavailable,²² however, many cell phone-related crashes seem likely to go unreported.

The NHTSA suggests that the best way to determine the number of cell phone-related crashes is to check billing records with the cooperation of cell phone carriers to determine whether a driver was on the phone during the pre-crash period.²³ Indeed, states have recently suggested that when a cell phone is reported to be in use and criminal charges are pending after a crash, law enforcement officials will attempt to obtain phone records.²⁴ However, even this method would be somewhat imprecise because of the difficulty of pinpointing

13. See NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 10, at 50 tbl.3-1.

14. See *id.*

15. Kawanabe, *supra* note 4.

16. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 10, at 55 (citing members of the Oklahoma state police training academy).

17. *Id.*

18. *Id.*

19. *Id.*

20. See *id.*

21. *Id.*

22. *Id.* at 55-58.

23. *Id.* at 81.

24. *Id.* at 49.

the time of each crash to match it with billing records.²⁵ Based on past research, though, it is likely that investigators could determine the precise time of at least some crashes to reveal whether or not they were cell phone-related.²⁶ Of course, most crashes may not be scrutinized because investigators will first have to have some evidence of cell phone use to know to ask for billing records.²⁷ Also, under the states' plans, investigators would request billing records for only the most serious cell phone-related accidents.²⁸ Thus, even the use of billing records may not accurately measure the incidence of cell phone-related crashes.

In addition, even if investigators could accurately match the times of a large number of crashes with billing records, researchers would still need the cooperation of cell phone service providers and drivers to gain access to the records. Thus far, such cooperation has been somewhat mixed. The industry and some drivers cooperated in a prominent study published in the *New England Journal of Medicine*, but many other drivers declined to participate.²⁹ Frances Bents, who helped write the NHTSA's comprehensive study on cell phones in 1997, said that the industry—citing privacy concerns—has declined to provide billing records for proposed studies to match the records with every crash in a state over the course of a year.³⁰ Bents contends that such fears are unjustified. Researchers frequently use medical records and simply remove personal identifiers; this same method could be used for cell phone billing records, she sug-

25. See Donald A. Redelmeier & Robert J. Tibshirani, *Association Between Cellular-Telephone Calls and Motor Vehicle Collisions*, 336 NEW ENG. J. MED. 453, 454 (1997) [hereinafter Redelmeier & Tibshirani, *Calls and Collisions*], available at <http://www.nhtsa.dot.gov/departments/nrd-13/driver-distraction/PDF/5.PDF>.

26. See *id.* at 454.

27. See NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 10, at 55.

28. See *id.* at 49.

29. See Redelmeier & Tibshirani, *Calls and Collisions*, *supra* note 25, at 454–55. Cellular service companies and drivers also provided researchers with billing records in a larger (and more recent) study of 36,000 drivers by the University of Montreal's Centre for Research on Transportation. See Francis X. Clines, *Deaths Spur Law Against Drivers on Cell Phones*, N.Y. TIMES, Feb. 18, 2001, at A1, available at LEXIS, News, The New York Times (discussing the results of the study without mentioning industry and driver cooperation); Press Release, Canadian Wireless Telecommunications Association (CWTA), Canada's Wireless Industry Welcomes Research on Driver Distraction (Feb. 7, 2001), available at http://www.cwta.ca/media/press/feb07_01.php3. The CWTA press release includes the following statement by CWTA President and CEO Peter Barnes: "'Canada's wireless service providers worked cooperatively with the Centre's researchers and provided data on participants' wireless phone records which were released only with the customer's written consent.'" *Id.* As of November 2001, the Canadian study was in external review and had yet to be published. E-mail from Centre for Research on Transportation, University of Montreal, to author (Nov. 26, 2001) (on file with author).

30. Telephone Interview with Frances Bents, Vice President, Dynamic Science (Dec. 18, 2000). Dynamic Science is a health and safety research firm. The author was unable to reach an industry representative in a position to comment upon Bents's remarks.

gested.³¹

While it is likely that there are more cell phone-related crashes than reported, it is also possible that data collection methods may over-count the incidence of crashes involving cell phone use.³² For example, FARS counted Oklahoma crashes as possibly cell phone-related if the police report noted "telephone installed."³³ However, an investigation of these accidents confirmed only 2 of 21 crashes in 1994, and 1 of 26 in 1995, as cell phone-related.³⁴ In addition, an officer might note that a phone was "in use" when a driver used it to summon help following a crash.³⁵ Thus, police might inaccurately record crashes as cell phone-related simply because officers observed that a cell phone was present or in use at an accident scene.

Notwithstanding problems in measuring the frequency of cell phone-related accidents, the crash data indicates that cell phones can distract drivers in several different ways. A survey of 28 crashes involving cell phones showed that at the time of the crash, drivers were talking, dialing, hanging up, answering, or reaching for their phones.³⁶ In addition, a database of crash narratives from the North Carolina police shows that picking up a dropped cell phone is associated with some crashes.³⁷

The crashes also seem to fall into two distinct categories indicative of driver distraction: moving out of traffic lanes and failure to stop.³⁸ Of the 28 previously-mentioned crashes, 15 were attributable to drivers moving out of their traffic lanes, 8 involved a collision with a stopped vehicle in the same lane, and 5 occurred when a driver failed to stop for a red light.³⁹

The circumstances of two widely-reported crashes that prompted legislation within the jurisdictions in which they occurred are consistent with these trends. Suffolk County, New York adopted a hand-held cell phone ban after county residents John and Carole Hall were killed—and their daughter, Sarah, was seriously injured—when a driver slammed into the back of the Halls' car while reaching for a cell phone.⁴⁰ Three Pennsylvania localities enacted similar

31. *Id.* Perhaps Bents's study would yield a more accurate measure of the dangers of cell phone use while driving if it could be implemented.

32. See NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 10, at 50.

33. *Id.*

34. *Id.*

35. *Id.* at 55.

36. See *id.* at 69 tbl.3-11.

37. *Id.* at 81.

38. See *id.* at 68.

39. *Id.* at 68. Bents notes that drivers who are using cell phones at the time of a crash are not generally rear-ended and do not roll their cars over. Bents, *supra* note 30.

40. See Christine Haughney, *Taking Phones Out of Drivers' Hands; New York County Joins a Growing Effort to Restrict Cellular Use in Vehicles*, WASH. POST, Nov. 5, 2000, at A8, available at 2000 WL 25426391 (noting, additionally, that the Halls' ten-year-old son, Michael, witnessed

restrictions in response to the death of two-year-old Morgan Pena.⁴¹ Pena was killed when a driver dialing a cell phone ran a stop sign in Hilltown, Pennsylvania and broad-sided a minivan driven by Pena's mother.⁴²

Common sense would indicate that dialing, answering, hanging up, reaching for a phone, or picking up a dropped phone might be dangerous because, while doing any of these things, a driver might take his eyes off the highway. Even a momentary distraction can be significant in a moving car.⁴³ At 35 miles per hour, for example, a car travels 51.3 feet per second.⁴⁴ At 65 miles per hour, it covers 95.3 feet per second.⁴⁵ Thus, the driver who takes his eyes off the road for just one second to answer a phone is essentially blind for close to 100 feet of roadway. In addition, under ideal circumstances, a car moving at 65 miles per hour will travel an average of 344 feet after its driver realizes that he must apply the brakes and bring the car to a halt.⁴⁶ In sum, then, the driver who looks away for a single second to operate a phone and then looks up to find that he must immediately slam on his brakes, may travel well over the length of a football field before successfully bringing his vehicle to a stop.

Studies using driving simulators and test tracks have helped support the common sense view that dialing can hinder driving.⁴⁷ At least three studies have found that manual dialing disrupted drivers' ability to stay in their lanes and maintain constant speed.⁴⁸ In fact, manual dialing's effect on lane-keeping and speed maintenance is similar to that created when a driver manually tunes her car radio.⁴⁹ This is significant because crash data research has demonstrated that manual radio tuning is associated with accidents.⁵⁰ Further supporting the com-

the accident); Mark Bowes, "*It Changed . . . Life in a Second*"; *Family Struggling After Couple Killed in Crash*, RICH. TIMES-DISPATCH, Dec. 3, 1999, at A1, available at 1999 WL 4372047 (describing the crash without mentioning that a cell phone had been involved because that detail was not yet made public.)

41. See KAREN LISSY ET AL., CELLULAR PHONE USE WHILE DRIVING 61 (Harvard Center for Risk Analysis, Phase One Report, July 2000).

42. Compare *Perkasie Girl Dies After Cars Collide; Hilltown Township*, MORNING CALL (Allentown), Nov. 4, 1999, at B3, available at 1999 WL 20693449 (reporting that the driver was dialing his cell phone at the time of the crash), and Telephone Interview with Kerry Trauger, Chief of Police, Hilltown Township Police Department (Nov. 20, 2000) (explaining that the driver was, indeed, dialing), with Mason, *supra* note 3 (reporting that the driver who hit Pena's car was "talking" on a cell phone at the time of the crash).

43. See NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 10, at 55.

44. See *id.*

45. See *id.*

46. VA. CODE ANN. § 46.2-880 (1950).

47. See NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 10, at 105-06.

48. *Id.* at 105. Not all studies reflect these results, however: NHSTA reports that one closed-course environment study failed to produce evidence that manual dialing disrupted lane-keeping or speed maintenance. *Id.*

49. *Id.*

50. *Id.*

mon sense notion that dialing a phone will hinder a driver's ability to drive safely is research suggesting that voice dialing, in which a cell phone user utters a vocal command causing the phone to dial, reduces the risk of an accident.⁵¹

Simulator and test track studies have also produced evidence that may contradict common sense; these findings indicate that simply talking on the phone disrupts driving. Studies have shown that difficult, "intelligence test" conversations disrupt lane-keeping, speed maintenance, and perception; increase brake reaction times; and reduce drivers' awareness of what is occurring around them.⁵² For example, in an early study, 24 subjects drove on a test track and were asked to answer "true" or "false" through a telephone to questions such as: "A follows B ... BA" (true) and "B precedes A ... AB" (false).⁵³ The results indicated that during the communication, drivers had difficulty judging whether their cars could fit through gaps in the roadway.⁵⁴ A more recent study examined 15 drivers in a simulator who were engaged in a hands-free telephone conversation at certain times.⁵⁵ When the simulator was suddenly stopped as drivers were engaged in conversation, only 4 of the 15 could describe the traffic around them.⁵⁶ Yet 14 of the 15 drivers made such a description when they were not talking on the phone.⁵⁷ Researchers observed a similar ratio when they asked subjects to name the color of the car in the rear-view mirror and to say whether the car was driving faster than the subjects were.⁵⁸ Thus, the evidence from test track and simulator studies indicates that drivers are impaired when simply talking on the phone.⁵⁹

There is neurological support for the test track and simulator studies—and

51. *Id.*

52. *Id.* at 106; Andrew Parkes & Victor Hooijmeijer, *The Influence of the Use of Mobile Phones on Driver Situation Awareness*, Driver Distraction Forum, at <http://www.nrd.nhtsa.dot.gov/departments/nrd-13/driver-distraction/PDF/2.PDF> (May 17, 2000).

53. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 10, at 87–88, 197 (citing I.D. Brown et al., *Interference Between Concurrent Tasks of Driving and Telephoning*, 53 (5) J. APPLIED PSYCHOL. 419 (1969)).

54. *See id.* at 88.

55. Parkes & Hooijmeijer, *supra* note 52, at 1.

56. *Id.* at 6.

57. *Id.*

58. When asked if they could "tell . . . the colour of the car that was in [their] rear-view mirror," only 6 of 15 drivers who had been engaged in conversation were able to do so, whereas 14 of 15 drivers that had not been talking could. *Id.*

59. These studies may not translate to the real world, however. With the risk of a real accident significantly or completely diminished on a test track or in a simulator, drivers may concentrate more on the telephone task than they would if driving on the open road. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 10, at 106–07. In the real world, drivers may be careful not to let their phone conversations interfere with driving. *Id.* Moreover, the "intelligence test" conversations used in simulators and test tracks may be more challenging than real-life conversations. *Id.* at 108. On the other hand, the test conversations were free of emotional content that drivers may encounter in real life. *Id.* Such conversations may be more disruptive than the intelligence tests. *Id.*

their applicability to real life driving situations. Scientists say that distractions for drivers are especially dangerous because the human body is not built to react at driving speeds.⁶⁰ Barry Gordon, a behavioral neurologist at Johns Hopkins Hospital in Baltimore, explains: "There's a certain speed built into our nervous system. . . . Most of the time, the brain has relatively little capacity to change tasks when it's moving at speeds no human body ever moved at on its own."⁶¹ And a brain may not be able to change tasks quickly enough when a driver is using a cell phone and suddenly must concentrate on driving.⁶²

An epidemiologic method study in the *New England Journal of Medicine* offers additional evidence that cell phones lead to accidents.⁶³ Donald A. Redelmeier and Robert J. Tibshirani examined 699 drivers who used cell phones and were involved in accidents that resulted in significant property damage but no personal injury.⁶⁴ The researchers obtained billing records for each driver for the day of the crash and the previous week.⁶⁵ They then compared the drivers' telephone activity during the brief period preceding the crash with a similar control interval at the same time of day on the day before the crash, when the driver was not in a collision.⁶⁶

After adjusting their analysis to compensate for the fact that the times of some accidents could not be pinpointed,⁶⁷ Redelmeier and Tibshirani found that 170 drivers (24%) made a call during the period just before the crash, while only 37 drivers (5%) made a call during the control period.⁶⁸ The researchers reexamined their data in several ways, including restricting their analysis to drivers who were confident that they had driven during both the control period and the period prior to the crash.⁶⁹ They calculated that using a cell phone while driving was associated with a four-fold increase in the risk of an accident during the brief period of a call.⁷⁰ Hands-free devices turned out to be no safer than hand-held phones.⁷¹ Moreover, although drivers with only a year or less of cell phone experience were at greater risk than drivers who had owned cell phones for longer periods of time, there was almost no difference between people with two or three years of cell phone experience and drivers who had owned cellular

60. See Frank Ahrens, *Driven to Distraction*, WASH. POST, Mar. 8, 1999, at C4, available at 1999 WL 2204035 (noting that "our brains didn't evolve to react at 60 mph").

61. *Id.* (quoting Barry Gordon).

62. See *id.*

63. See generally Redelmeier & Tibshirani, *Calls and Collisions*, *supra* note 25.

64. *Id.* at 454.

65. *Id.*

66. *Id.*

67. *Id.*

68. *Id.* at 455.

69. *Id.* at 454.

70. *Id.* at 456.

71. *Id.*

technology for greater than five years.⁷² This last fact suggests that cell phone-related risk is not simply a function of inexperience; instead, it indicates that a more fundamental impairment to driving results from cell phone usage in automobiles.⁷³

The Redelmeier and Tibshirani study has several strengths. First, in employing billing records to determine cell phone use, it overcomes the reporting problems associated with relying on police officers to see, and drivers to admit, whether a cell phone was in use at the time of a crash.⁷⁴ Second, the study overcomes the problem of test track and simulator experiments that do not put drivers in real world situations.⁷⁵ Here, the drivers were driving with real traffic and having real conversations with the real, and realized, risk that they might be involved in an accident.⁷⁶

Despite these strengths, however, the study should not be regarded as conclusive. As the authors acknowledge, they found that cell phones were *associated with* increased risk, not that cell phones *caused* that risk.⁷⁷ While cell phones may, indeed, have caused the risk, it is possible, the authors write, that "emotional stress may lead to both increased use of a cellular telephone and decreased driving ability."⁷⁸ Thus, cell phone use may be only a symptom of a deeper cause.⁷⁹ It should be noted that the study examined phone usage just before the crash, but not necessarily at the time of the crash.⁸⁰ If the drivers had completed their calls before the crash, perhaps cell phones were not the cause of

72. *Id.* at 456 tbl.2 (showing a 7.8 relative risk for drivers with one year or less of cell phone experience, a 4.0 relative risk for drivers with two or three years of experience, and a 4.1 relative risk for drivers who had owned a cell phone for more than five years). For purposes of the study, "[r]elative risks indicate the probability of having a collision when using a cellular telephone at any time during a 10-minute interval as compared with the probability of having a collision when not using a cellular telephone at any time during a 10-minute interval." *Id.*

73. See Donald A. Redelmeier & Robert J. Tibshirani, *Is Using a Car Phone Like Driving Drunk?*, CHANCE, Spring 1997, at 5, 7 [hereinafter Redelmeier & Tibshirani, *Driving Drunk*], available at <http://www.public.iastate.edu/~chance99/102.carphone.pdf>.

74. See NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 10, at 55. The researchers must have assumed, of course, that if the billing record said that the phone was in use at 5:45 p.m., the driver was the one using the phone at that time.

75. See Redelmeier & Tibshirani, *Driving Drunk*, *supra* note 73, at 6 ("Data obtained in artificial circumstances that involve hypothetical risks and unnatural conversations might not provide an accurate assessment of the real relationship between cellular telephone calls and motor vehicle collisions.").

76. See *id.*

77. Redelmeier & Tibshirani, *Calls and Collisions*, *supra* note 25, at 457.

78. *Id.*

79. *Id.*

80. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 10, at 108-09; Press Release, Cellular Telephone Industry Association, Statement by CTIA Regarding the Association Between Wireless Phones and Automobile Accidents (Feb. 12, 1997) [hereinafter CTIA Statement], available at <http://www.wow-com.com/news/archives/>.

the accident.⁸¹ On the other hand, perhaps the distracting effects of a phone call linger after the call has been completed or begin before the call starts.⁸²

There may also have been a selectivity bias in the study. The authors initially approached 5890 drivers who had been involved in accidents, 1064 of whom acknowledged having a cell phone.⁸³ Of the 1064, 742 drivers agreed to participate in the study, but researchers were able to locate and collect data from only 699 of them.⁸⁴ Thus, it is possible that the authors underestimated the risk associated with cell phone use if some of the original 5890 drivers were using phones at the time of the crash but removed themselves from the study by falsely saying that they did not have cell phones.⁸⁵ A similar effect may have resulted if some or all of the 322 admitted cell phone owners who declined to participate were talking on cell phones at the time of their accidents.⁸⁶ On the other hand, the researchers may have overestimated risk for the general population if the drivers who opted out of the study were not talking on cell phones at the time of their crashes. The researchers may also have overestimated risk by studying a group of drivers who had been in accidents.⁸⁷ In addition, it is possible that the associated risk may be different for crashes involving serious injury or death.⁸⁸

Just how dangerous is it to use a cell phone behind the wheel, then? Some researchers say that it is generally not as dangerous as driving drunk. In their *New England Journal of Medicine* study, Redelmeier and Tibshirani noted that the four-fold increase in risk associated with using cell phones while driving is similar to the risk associated with driving with a blood alcohol level at the legal limit.⁸⁹ However, in a later article, the authors clarify their earlier research by stating that "[t]he cumulative risks associated with alcohol intoxication are much greater than those associated with using a cellular telephone."⁹⁰ Redel-

81. LISSY ET AL., *supra* note 41, at 31.

82. *Id.*

83. Redelmeier & Tibshirani, *Calls and Collisions*, *supra* note 24, at 454.

84. *Id.* at 454–55.

85. LISSY ET AL., *supra* note 41, at 31.

86. *Id.*

87. CTIA Statement, *supra* note 80.

88. LISSY ET AL., *supra* note 41, at 31; Robert W. Hahn et al., *Should You Be Allowed to Use Your Cellular Phone While Driving?*, REGULATION, VOL. 23(3) 2000, at 49, available at <http://www.cato.org/pubs/regulation/regv23n3/hahn.pdf>.

89. See Redelmeier & Tibshirani, *Calls and Collisions*, *supra* note 25, at 456. A still-unpublished study will apparently suggest that the risk posed by cell phone use on the road is somewhat smaller than Redelmeier and Tibshirani found, however. See *supra* note 29. The University of Montreal's Centre for Research on Transportation has found that cell phone users have a thirty-eight percent greater risk of being in an accident than other drivers; moreover, the Canadian study suggests that this risk increases as cell phone use goes up. See Clines, *supra* note 29.

90. See Redelmeier & Tibshirani, *Driving Drunk*, *supra* note 73, at 8.

meier and Tibshirani explain that driving with a blood alcohol level at the legal limit is indeed associated with a risk similar to that found in their cell phone study; however, a blood alcohol level significantly higher than the legal limit is associated with a much higher risk.⁹¹ Redelmeier and Tibshirani also note that "alcohol stays in the bloodstream for several hours, whereas a typical cell phone call lasts only one or two minutes"⁹²—another factor which indicates that driving drunk is associated with a higher level of risk. Even increased numbers of drivers using cell phones would not significantly increase the overall risk of a crash, the authors argue, because the duration of each call is so short.⁹³ Indeed, the brevity of cell phone calls helps explain why there has not been a large increase in the number of collisions since cell phones have become popular, Redelmeier and Tibshirani write.⁹⁴

Nevertheless, Frances Bents argues that Redelmeier and Tibshirani may be too quick to suggest that talking on a cell phone is less dangerous than driving drunk.⁹⁵ She notes that the length of cell phone calls is increasing as rates for airtime decrease, so drivers may be impaired for longer durations.⁹⁶ Furthermore, researchers have extrapolated the risk factor for driving while intoxicated by analyzing drivers who are drunk over the entire course of their drives.⁹⁷ On the other hand, the risk factor for cell phone use is based on the short period of time when the phone is in use.⁹⁸ Thus, Bents suggests that if the risk factor for cell phone use were determined by studying drivers who were on the phone non-stop for a half hour, the risk factor would, and in the real world does, exceed that of driving while intoxicated at the legal limit.⁹⁹

And what about the fact that the number of crashes in the United States has not increased despite the dramatic increase in cell phone usage? Some researchers speculate that, at least as far as fatalities are concerned, the total number of fatalities may not reflect any single trend, or lack thereof, because so many variables are involved.¹⁰⁰ For example, cell phone-related fatalities may, in fact, be increasing without producing any noticeable change in the overall driving fatality statistics. It could be that these extra deaths are being statistically offset by a decline in other fatalities due to decreased drinking and driving and increased

91. *Id.*

92. *Id.*

93. *Id.*

94. *Id.*

95. Bents, *supra* note 30.

96. *Id.*

97. *Id.*

98. *Id.*

99. *Id.*

100. LISSY ET AL., *supra* note 41, at 25.

seat belt use.¹⁰¹ The figures for overall crashes (fatal and non-fatal) may be equally unenlightening.

Despite all of the uncertainty, one thing is clear: cell phone use while driving is dangerous. We may not know exactly how dangerous, but data generated from anecdotal evidence, reports of the types of crashes in which cell phone users are involved, simulator and test track studies, and epidemiologic method research all add up to reveal a picture of impairment behind the wheel. The question for policy makers, then, is what should be done?

III. TORT LAW AS A POSSIBLE DETERRENT

One alternative is using the tort system as a deterrent. Assuming drivers face liability for accidents involving cell phone use, they may think twice before talking on the phone. Moreover, insurers could raise rates for those who talk while they drive and then get into accidents, thus providing an additional layer of deterrence.

While the tort system may offer financial disincentives to cell phone use behind the wheel, potential tort liability seems unlikely to discourage many drivers from picking up their phones for psychological reasons. Professor Mari Matsuda, who teaches Torts at the Georgetown University Law Center, says that the tort system would likely have a more powerful deterrent effect on cell phone use by business employees than it would on cell phone use by individuals.¹⁰² Matsuda explains that businesses consider the risk of lawsuits as a normal part of their budgeting process; individuals, on the other hand, discount even substantial risks as part of a psychological mechanism that allows humans to function without being paralyzed by fear.¹⁰³ Thus, an individual might hear about lawsuits involving cell phone use on the road and think: "that will never happen to me," while a business might protect its assets by banning employee use of cell phones while driving, Matsuda suggests.¹⁰⁴

A recent survey supports at least part of Matsuda's thesis. In 1999, the Insurance Research Council found that 84% of cell phone users believed using a phone while driving was distracting and increased the risk of an accident.¹⁰⁵ But 61% of the same respondents said that they used their phone while driving, and 30% said that they did so frequently or fairly often.¹⁰⁶ This response suggests that cell phone users, as Matsuda predicts, discount the risk of an accident. Per-

101. *Id.* at 25.

102. Telephone Interview with Mari J. Matsuda, Professor of Law, Georgetown University Law Center (Dec. 11, 2000).

103. *Id.*

104. *Id.*

105. Parkes & Hooijmeijer, *supra* note 52, at 1.

106. *Id.*

haps phone users would discount the risk of a lawsuit as well.

As for the other side of Matsuda's theory, that businesses will be more responsive to the risk of cell phone use on the road, at least one major business has already taken action. As part of its "Safe Fleet" program, corporate giant Johnson & Johnson prohibits its 9700 sales and service staff from using hand-held or hands-free phones when they drive on the job.¹⁰⁷ Furthermore, some companies that are part of Johnson & Johnson's corporate family prohibit non-sales staff from talking on cellular phones when the staffers are driving on company business.¹⁰⁸

Perhaps more companies will follow Johnson & Johnson's example if companies are subjected to tort liability, as some already have been.¹⁰⁹ Recently, a Smith Barney stockbroker, distracted while reaching down to pick up his dropped cell phone, hit and killed a twenty-four-year-old father of two.¹¹⁰ Smith Barney settled a subsequent lawsuit for \$500,000.¹¹¹ Earlier in 2001, a father whose fifteen-year-old daughter died after being hit by a car filed a \$30 million lawsuit against Cooley Godward, a law firm.¹¹² The suit alleges that the car's driver was conducting firm business on her cell phone near the time she hit the girl and that the firm billed clients for the driver's calls.¹¹³ A recent article reports that "since 1990 . . . there have been thirty-four [lawsuits filed in response to] incidents in which cell phone use has contributed to accidents and injuries."¹¹⁴ Of these 34 cases, 14 resulted in plaintiff's verdicts, 11 in defense verdicts, 6 settled, and 3 were resolved by mediation or arbitration.¹¹⁵ Perhaps litigation will influence corporate behavior as well as the public debate, but whether the threat of liability will persuade individual drivers to put down their phones is, at best, uncertain.

Another reason the tort system may not deter individual drivers is the availability of automobile insurance. When individuals are sued for auto acci-

107. Telephone Interview with Michael Ferrara, Manager of Safe Fleet North America, Johnson & Johnson (Nov. 21, 2000). Johnson & Johnson officials in a position to comment on the rationale for the company's ban were not available, but one can speculate that the company acted to reduce its risk, whether to its vehicles and employees, to legal liability, or to both.

108. *See id.*

109. Terry Carter, *Crash Course for Business*, ABA J., Aug. 1999, at 40, available at <http://www.abanet.org/journal/aug99/08tphone.htm>.

110. *See id.*

111. *See id.*

112. *See* Jennifer Myers, *Suit Puts Law Firm On the Line; \$30M Claim: Cooley Associate's Cell Calls Led to Fatal Accident*, LEGAL TIMES, June 25, 2001 at 1, available at LEXIS, News, Legal Times.

113. *See id.*

114. Carter, *supra* note 109 (citing statistics compiled by Jury Verdict Research, a personal injury case tracking firm).

115. *See id.*

dents and lose or settle, the plaintiff typically recovers damages from the defendant's insurer, not the defendant himself.¹¹⁶ Even when defendants have committed reckless acts that are not covered by insurance, such as driving while intoxicated, plaintiffs' attorneys will sue for both negligence and recklessness.¹¹⁷ Then, the plaintiff's lawyer will make a demand to settle within the limits set by the insurance policy.¹¹⁸ Most defendants settle for the negligence portion of the suit (paid by the insurer) rather than risk an adverse verdict at trial on grounds of recklessness (which would require the defendant to pay out-of-pocket).¹¹⁹ Thus, whether talking on a cell phone while involved in a crash is deemed negligent or reckless, drivers may not feel the financial consequences of a crash beyond a potential increase in their insurance rates.¹²⁰ Moreover, there is no guarantee that drivers would associate the increase in rates with talking on a cell phone while driving, as opposed to the accident itself. For these reasons, it appears that the tort system may provide an inadequate deterrent effect on cell phone use behind the wheel.

IV. A BETTER ALTERNATIVE: EDUCATION AND ENFORCEMENT

Research regarding campaigns to increase seat belt use suggests that a combination of education and enforcement is a better alternative for deterring the use of cell phones on the road.¹²¹ For example, the NHTSA reported that seat belt use increased from fourteen to forty-two percent in the mid-1980s as a result of the seat belt laws that took effect in thirty-one states. Seat belt use increased even further through highly visible enforcement and public education campaigns, the NHTSA reported.¹²² And seat belt use is an average of fifteen percentage points higher in states that have "primary" seat belt laws.¹²³ Under these laws, police can stop a motorist simply for not wearing a belt.¹²⁴ Under "secondary" laws, however, police can ticket drivers for failing to wear seat

116. Telephone Interview with Jerry Esrig, Adjunct Professor, Northwestern University School of Law (Dec. 13, 2000). Professor Esrig has been a trial lawyer in Chicago for the past twenty-two years.

117. *Id.*

118. *Id.*

119. *Id.*

120. *Id.*

121. See generally Buckle Up America: The Presidential Initiative for Increasing Seat Belt Use Nationwide, First Report to Congress (Jan. 1998) (reporting that "four elements, when implemented together, have proven to be effective in increasing seat belt use": public-private partnerships; strong legislation; active, high visibility law enforcement; and effective public education), available at <http://www.nhtsa.dot.gov/people/injury/airbags/buckleplan/presbelt2/>.

122. *Id.*

123. *Id.*

124. *Id.*

belts only after stopping drivers for another infraction.¹²⁵ This data suggests that tough, visible restrictions on cell phone use combined with public education could be effective in limiting cell phone use on the road, too. Matsuda has said that drivers may discount the risk of an accident and resulting tort liability, but if enforcement and education are visible enough, those same drivers may not be able to discount the risk of being stopped and ticketed so easily.

V. WHAT TO RESTRICT: HAND-HELD PHONES OR HAND-HELD PHONES AND HANDS-FREE DEVICES?

Assuming that cell phone use should be regulated, legislators must still decide what kinds of restrictions should be implemented. Most of the current laws regulate the use of hand-held phones yet place no restrictions on hands-free cellular technology. It may be, however, that these laws are not as wise as they might initially seem.

On the one hand, there appear to be advantages to laws that apply only to hand-held phones. For instance, such laws may be easier to enforce in a uniform manner because it is simply easier for police to see hand-held phones than many of the common hands-free devices.¹²⁶ Simulator studies suggest that some drivers using hands-free technology may be so impaired by their conversations that officers would recognize the signs of a cellular call in progress, but other drivers may be able to terminate or suspend their conversations whenever officers get too close, thereby thwarting effective enforcement against hands-free ban violators. Another possible advantage to banning only hand-held phones is that drivers would still be able to use cell phones in their cars while keeping both hands on the steering wheel.¹²⁷ Allowing the use of hands-free phones could thus reduce certain dangers associated with cell phones without completely forbidding their use. Moreover, as hands-free devices are relatively inexpensive,¹²⁸ it would not be difficult for most drivers who currently use hand-held phones to make the switch.

On the other hand, the major problem with a hand-held ban is that it may send a message that hands-free use is perfectly safe.¹²⁹ In this scenario, the law

125. *Id.*

126. If a ban applied to all cellular technologies, officers would be likely to catch offending drivers in the act of talking on hand-held phones, but they may be unlikely to detect drivers' use of hands-free devices such as earpieces and speaker systems. Bents, *supra* note 30.

127. See NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 10, at 118, 270.

128. See Hahn et al., *supra* note 88, at 50. According to one employee of Verizon Wireless, it costs between twenty and seventy dollars to obtain hands-free equipment. Telephone Interview with Jeffrey Nelson, Executive Director for Corporate Communications, Verizon Wireless (Dec. 21, 2000).

129. Bents, *supra* note 30.

could have the perverse effect of actually encouraging drivers to make *more* calls from the road—under the mistaken assumption that hands-free units pose no danger—than drivers might have done absent regulations on hand-held phones.¹³⁰ The likely effect would be to reduce traffic safety. As the test track and simulator studies have indicated, simply talking on the phone—whether the device is hand-held or hands-free—can be distracting.¹³¹ And Redelmeier and Tibshirani found no difference in risk between hand-held and hands-free phone use.¹³² Thus, lawmakers should seriously consider banning both hand-held *and* hands-free phones. Such a restriction could help make driving safer.

VI. OBJECTIONS TO RESTRICTING CELL PHONE USE

Some have argued that it would be unfair to restrict cell phone use behind the wheel without similarly restricting drivers' ability to talk to their passengers, a seemingly similar activity that is also likely to be distracting.¹³³ Yet there may be important differences between talking on the phone and talking to a passenger: Redelmeier and Tibshirani suggest that passengers are likely to be more understanding when drivers stop talking in order to execute a difficult maneuver.¹³⁴ The implication is that those on the other end of a phone cannot see the road and will be less understanding. Thus, drivers talking on a phone may feel more pressure to keep talking when it is unsafe to do so, or these drivers may be forced to continue listening and to formulate a response to the conversation even though doing so might be unsafe.¹³⁵ Redelmeier and Tibshirani also suggest that conversations with passengers are safer because the passengers serve as a sec-

130. *Id.*

131. For example, a recent study of the driving performance of fifteen test drivers using hands-free cellular technology revealed the following results:

Significant deterioration was found in situation awareness between the phone and no-phone situation. Many subjects in the phone situation had very little idea about what was going on around them . . . and were not able to report on the presence or actions of traffic around them. . . . [There was] a dramatic fall off in situation awareness due to the level of concentration demanded by the car phone conversation.

Parkes & Hooijmeijer, *supra* note 52, at 7–8.

132. Redelmeier & Tibshirani, *Calls and Collisions*, *supra* note 25, at 456.

133. *E.g.*, Resler, *Stop the Cell Phone Silliness*, MILWAUKEE J. SENTINEL, Aug. 30, 2001, at 18A, available at 2001 WL 9376014 (“[W]hat’s the appreciable difference between talking to someone on your car phone or talking to someone sitting next to you, especially if it is a heated conversation? What’s next? Banning conversations while driving?”).

134. See Redelmeier & Tibshirani, *Driving Drunk*, *supra* note 73, at 9 (“[A] fellow passenger will be somewhat sensitive to roadway conditions and understand, for example, why a driver might have stopped talking when merging into heavy traffic.”).

135. See *id.* Redelmeier and Tibshirani do not explain exactly how the distraction occurs.

ond set of eyes for the driver.¹³⁶ Moreover, the researchers speculate, passengers in a car are less likely to be major clients or business superiors.¹³⁷ Once again, the implication is that when talking to clients or superiors on the phone, a driver will feel compelled to continue the conversation when it is unsafe. Thus, policymakers could, and perhaps should, make the case that talking on the phone is fundamentally more risky than talking to a passenger.

Some have also argued that it would be unfair to restrict the use of cell phones on the road while permitting other distractions, such as eating, putting on makeup, or shaving.¹³⁸ But here, too, there seems to be a difference. Redelmeier and Tibshirani have persuasively argued that while eating, shaving, or applying makeup may take a brief moment (or many brief moments), drivers can choose when to perform these activities¹³⁹—preferably when traffic conditions are not hazardous. In contrast, a cell phone conversation often lasts for a minute or two, during which time driving conditions can change significantly.¹⁴⁰ The researchers might also have added that conversations can change dramatically as well: what a driver thinks will be a quick call to a coworker or a spouse could turn into an involved and highly distracting discussion about an unexpected crisis.

In addition, Bents notes that talking on a cell phone is the only activity that combines visual, auditory, biomechanical, and cognitive distractions.¹⁴¹ Even hands-free phones will involve some biomechanical distraction—turning the phone on and dialing it, for example—unless the phones are fully voice-activated.¹⁴²

Although studies have revealed that drivers tend to look at speakers during speakerphone conversations,¹⁴³ it seems that the major distractions from hands-free phones will be auditory and cognitive—distractions that are not present when eating, applying makeup, or shaving. Listening to the radio is an auditory distraction, Bents says, but it is not as distracting as a phone conversation

136. See *id.* (“[A] fellow passenger contributes not just to distraction but also to vigilance (by pointing out factors such as nearby pedestrians, a missed street sign, or an approaching vehicle).”).

137. *Id.*

138. See *id.* (reporting that “[j]ournalists have wondered how the relative risk associated with using a cellular telephone might compare to the relative risk associated with drinking coffee, applying makeup, or shaving while driving”); Resler, *supra* note 133 (noting that “other activities” such as eating, drinking coffee, reprimanding the kids in the back seat or fiddling with the radio or CD “can be major distractions” as well).

139. Redelmeier & Tibshirani, *Driving Drunk*, *supra* note 73, at 9. This is not to say that every instance in which a driver chooses to apply makeup or take a sip of coffee will be well-timed, however. See, e.g., *infra* notes 173–74 and accompanying text.

140. See Redelmeier & Tibshirani, *Driving Drunk*, *supra* note 73, at 9.

141. Bents, *supra* note 30. Looking away from the road involves visual distraction; reaching for a phone or dialing it can be biomechanical distractions.

142. *Id.*

143. *Id.*

that includes a cognitive component.¹⁴⁴ She explains that even if a driver were simply listening as part of a conversation, the driver would be more distracted because he would be formulating a response.¹⁴⁵ Thus, it seems that both hand-held and hands-free phone conversations may be more dangerous than other driver distractions.

Legislators should not be intimidated by certain studies that have shown that the costs of a ban outweigh its benefits or that the costs of a ban would be extremely high. For example, Donald Redelmeier and Milton Weinstein estimate that the cost of a ban would be \$300,000 per quality-adjusted life year (QALY) saved.¹⁴⁶ In comparison, seat belts and air bags provide increased driver safety for only \$24,000 per QALY.¹⁴⁷ The authors caution, however, that there is significant uncertainty in the statistics on which they rely and, furthermore, that their estimate of cost per QALY saved could range from \$50,000 to \$700,000.¹⁴⁸ Robert Hahn and two coauthors have estimated that a ban's cost would outweigh its benefits by \$20 billion per year, but admit that, depending on variables, the figure could range from an \$87 billion-per-year net cost to a \$6.8 billion-per-year benefit.¹⁴⁹ They also contend that the costs of banning only hand-held phones would outweigh the benefits unless such a ban resulted in about a 25% reduction in accidents related to cell phone use.¹⁵⁰ Both studies rely on estimates of the monetary value of using cell phones while driving and the monetary value of death, injury, and other damage caused by such use.¹⁵¹

These studies may be somewhat useful, but they have drawbacks; the most obvious of which is that they attempt to quantify variables that cannot be measured. Trying to determine how much a year of quality life is worth in monetary terms is basically impossible, if one considers that everyone's life is unique and that many of life's components, such as love and happiness, cannot be quantified. Also fundamentally impossible is quantifying how much it is worth to use a cell phone while driving. To extrapolate this figure, one cost-benefit study used consumer demand and market prices,¹⁵² while the other used consumer

144. *Id.*

145. *Id.*

146. Donald A. Redelmeier & Milton C. Weinstein, *Cost-Effectiveness of Regulations Against Using a Cellular Telephone While Driving*, 19 MED. DECISION MAKING 1, 1 (1999). *Quality-adjusted life years* (QALYs) are lost years of life that account for age distribution of persons killed in crashes, life expectancies at different ages, and age specific health-related quality of life. For each QALY lost from death, the authors estimate that .81 QALYs are lost from injury. *Id.* at 3.

147. *Id.* at 7.

148. *Id.*

149. Hahn et al., *supra* note 88, at 50 tbl.2.

150. *Id.* at 51.

151. See generally Redelmeier & Weinstein, *supra* note 146, at 2-7; Hahn et al., *supra* note 88, at 47-52.

152. See Redelmeier & Weinstein, *supra* note 146, at 3-4.

demand and the proportion of total cell phone revenues from calls in vehicles.¹⁵³

But how much is using the cell phones worth in an objective sense? A businesswoman could argue that she does \$50,000 more in business because she can talk on her phone while she drives. But perhaps she would have obtained the same amount of business had she called clients from her office or a parked car. Perhaps she would have made a more effective sales pitch if she had not had to worry about traffic and poor phone reception. A businessman might argue that talking on the phone while driving allows him to make productive use of an hour-long commute. But using the phone while driving may prevent him from making a more productive choice: moving closer to work so that he can maximize his office time and reduce his commute. On the other hand, some people may be more productive in their cars than in their offices. And some may be able to conduct additional business on the road. The point is that any attempt to determine the value of being able to use cell phones while driving is unlikely to produce reliable figures.

Perhaps it is more useful to examine the non-monetary benefits of cell phone use that many phone users, and others, have cited. The greatest benefit of using cellular phones while driving is almost certainly the ability to make emergency calls from the road; this convenience can be utilized to protect the phone user's own safety and the safety of others. Indeed, police officers say that cell phone call-initiated reports of drunken drivers and other hazards on the road have become important law enforcement assets.¹⁵⁴ Not only can phone calls from the road help officers locate dangers they otherwise might have missed, but such calls can help police and rescue units respond with greater speed. This is no small matter: mere minutes can make a crucial difference if an accident victim has sustained life-threatening injuries.¹⁵⁵

But even emergency cell phone calls have some drawbacks. The police experience significant problems when too many drivers call to report the same incident; such calls threaten to overwhelm the 911 system, preventing other serious emergency calls from getting through.¹⁵⁶ Some states are attempting to construct new infrastructures to accommodate the increase in emergency calls from cell-phone-using drivers,¹⁵⁷ but this does not end the matter. The very act of placing an emergency call may still distract drivers. Nevertheless, emergency calls are likely to be infrequent and short in duration, thus posing a relatively small risk to prevent more certain harm.

The other benefits of cell phone use cited by phone users and others are

153. See Hahn et al., *supra* note 88, at 47.

154. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 10, at 42.

155. See LISSY ET AL., *supra* note 41, at 48.

156. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 10, at 34-35.

157. *Id.* at 34.

generally not worth the cost of increased driver impairment. These benefits include: coordinating schedules from the road with friends and family members; calling ahead to tell someone that you are running late, thus reducing the temptation to speed; the security of knowing that you are never out of touch, especially when traveling through a dangerous area; peace of mind for parents who know they can instantly talk to their children; and increased productivity.¹⁵⁸ Most of these benefits are psychological or financial,¹⁵⁹ while the cost of using cell phones on the road—the risk of injury and death from distracted drivers—is much greater. To be sure, a driver who calls ahead to inform others that he will be late may have less temptation to speed, thus helping to save lives; but drivers can choose not to speed, placing prevention over promptness. Drivers can also stop their cars, call ahead, and then resume driving. Accordingly, emergency calls appear to be the only type of calls from behind the wheel for which the benefit outweighs the harm.

VII. WHAT SHOULD QUALIFY AS AN EMERGENCY CALL?

Most of the current prohibitions exempt emergency calls from the road.¹⁶⁰ But what should qualify as an emergency? Some restrictions passed in the United States exempt calls to contact 911 or “public safety forces.”¹⁶¹ Others are much more detailed.

Suffolk County’s law is one of the more precisely drafted cell phone restrictions. It provides:

In the case of an emergency phone call, it shall be an affirmative defense for an individual to produce documentary evidence that the phone call which represents the alleged violation was made for the sole purpose of contacting:

- 1) a 911 emergency telephone number or any successor emergency number

158. LISSY ET AL., *supra* note 41, at 41–47.

159. One exception might be calling from a dangerous area to get directions, a type of cell phone use that could be deemed an emergency.

160. E.g., N.Y. VEH. & TRAF. LAW § 1225-c (McKinney Supp. 2001). In New York, “[n]o person [may] operate a motor vehicle upon a public highway while using a mobile telephone to engage in a call while such vehicle is in motion.” *Id.* § 1225-c(2)(a). One of the exceptions to this rule is that:

[T]his [prohibition] shall not apply to . . . the use of a mobile telephone for the sole purpose of communicating with any of the following regarding an emergency situation: an emergency response operator; a hospital, physician’s office or health clinic; an ambulance company or corps; a fire department, district or company; or a police department

Id. § 1225-c(3).

161. E.g., Ordinance No. 1999-27, 1999 City Council (Brooklyn, Ohio 1999).

- thereto;
- 2) a hospital;
 - 3) an ambulance company or corps;
 - 4) a fire department, fire district, or fire company;
 - 5) a heath [sic] clinic;
 - 6) a medical doctor's office;
 - 7) a first aid squad; or
 - 8) a police department.¹⁶²

On the one hand, Suffolk County's law ought to be a model for other regulations. This is because it reflects the reality that drivers may need to make emergency calls to doctors or health providers who may not qualify as "public safety officers" in the strict sense of the term. For example, a driver may have an adverse reaction to medication or want immediate consultation about a passenger who is having a seizure. Perhaps the driver knows a doctor who the driver thinks would be able to come to his aid more quickly than a 911-dispatched emergency team could. Thus, it seems wise to allow drivers to place emergency calls to doctors or health providers.

On the other hand, the emergency provisions in the Suffolk County law may not be broad enough. Perhaps *all* emergency calls should be allowed, provided they are made for the purpose of preventing imminent and serious bodily harm, regardless of whom the driver is calling. For example, a driver may have accidentally left a loaded gun within a child's reach. In this case, the driver should be able to call from the road to alert an adult. Or a driver may have left pills or poison within a child's reach and may feel compelled to call to warn a baby-sitter or a neighbor. Perhaps such calls should be allowed: they will presumably be rare and short and, thus, create a minimal driving risk while preventing a more likely harm.

However, an imminent-and-serious-harm standard might render legislation ambiguous. Courts would then have to interpret which emergency calls were permissible. For example, a judge might hold that calling home to warn family members that the driver left an iron turned on was not an attempt to prevent an imminent harm. That same judge might rule that a driver who was lost in a dangerous neighborhood was seeking to avoid imminent harm by called to get directions. Other judges could potentially issue contrary rulings in either case, however. One advantage of the current regulations, then, may be that they make the law relatively specific and predictable by limiting the definition of emergency calls to include only those placed to certain, clearly-specified entities.

Regardless of how the emergency exception is worded, some drivers are

162. See Res. No. 865-2000, § 4(B), 2000 Leg. (Suffolk County, N.Y. 2000).

likely to abuse the emergency provision unless it is provided as an affirmative defense contingent on the production of documentary evidence, as is the case in Suffolk County. Under the Suffolk County provision, police officers ticket drivers who are stopped for talking on a cell phone regardless of the driver's explanation at the time the ticket is issued.¹⁶³ Drivers may then contest the ticket and attempt to prove that the call fell within the emergency exemption.¹⁶⁴ To do so, the driver must produce a phone record in court to prove that he was making an emergency call.¹⁶⁵

If drivers could talk their way out of a ticket simply by telling officers who pull them over that they were making emergency calls, the law would offer little actual deterrent value, and drivers might continue to place non-emergency calls. Under statutes such as Suffolk County's, however, many drivers are likely to conclude that it is not worth being ticketed—and being forced to pay a fine or contest the ticket in court. Such drivers would only risk a ticket in a true emergency. Thus, an affirmative-defense-with-documentary-evidence provision would help deter unnecessary cell phone use on the road.

Lawmakers might even consider adding a requirement that, in addition to producing documentary evidence of the emergency call (whether to public safety personnel or others), drivers must prove that the emergency was so imminent (or that circumstances were so difficult) that they could not have stopped their cars before making calls. Such a provision would prevent a driver from calling his wife to make social plans; claiming, upon being apprehended, that it was an emergency call; and then avoiding a penalty simply by producing documentary evidence to show that he did, in fact, call his wife. The driver would also have to show, for example, that he was stuck in traffic on the interstate with no exit in sight. On the other hand, this additional provision might discourage some drivers from calling promptly when an immediate call could mean the difference between life and death.

Another issue for legislators to consider is whether incoming calls should be covered by an emergency exemption. For example, callers might be trying to warn the driver of icy roads ahead or attempting to tell the driver that his son was in an auto accident and was taken to a particular hospital. The driver cannot control when these calls occur and often cannot discern the caller's identity unless the driver answers the phone or looks at the cell phone's display screen to determine the caller's phone number—activities that drivers should not perform while operating a moving vehicle.

Permitting drivers to answer all incoming calls would likely result in driv-

163. Telephone Interview with Tim Ryan, Spokesman for Robert Gaffney, Suffolk County Executive (Sept. 3, 2001).

164. *Id.*

165. *Id.*

ers answering the true emergency calls, but it would not prevent them from taking others that would simply distract them while failing to prevent more serious harm. Perhaps, then, drivers should be forced to answer incoming cellular phone calls at their own risk, both physically and legally.

In the future, drivers might be able to determine which calls are true emergencies with the aid of a technology that one could call "audible voice mail."¹⁶⁶ Such a technology could enable callers to leave messages on the driver's phone, and the driver to hear those messages without having to answer. This would empower a driver to determine whether an incoming call was the type of emergency that required an answer or an immediate callback.

Under an imminent-and-serious-harm emergency exemption, a driver would have to determine if the risk of bodily harm suggested by the call was so great to him or to others that he could only prevent the harm by answering or calling back while the car was still moving. A call to warn of icy roads might meet this standard, for instance. Then again, the driver might be fully apprized of that sort of danger simply by listening to the audible message. It seems clear that a call to inform a driver of a son's accident and the hospital to which the injured boy had been taken would *not* meet this standard. After all, if the son had been taken to the hospital, the harm would have already occurred and the driver would not be in a position to prevent it. By answering the call in such a case, the distracted driver would only be putting drivers at risk while doing nothing to prevent further harm to his son.¹⁶⁷

Although audible voice mail is probably not yet available,¹⁶⁸ drivers might be able to predict which incoming calls are emergencies through a current feature that allows a user to program a different ring for different callers.¹⁶⁹ For example, a cell phone user could program a distinctive ring for calls from her home phone number and tell family members to call the phone only in emergencies. When the user heard the distinctive ring, she would expect that the call was an emergency call and would answer the phone even while driving.

Although potentially useful, distinctive ringing technology would not pre-

166. An analogous technology is the type of home answering machines that allow users to listen to callers' messages without having to answer the phone.

167. Of course, in the real world, a driver might convince a judge to waive the driver's fine if that driver was cited for answering a call informing him that his son had been taken to the hospital. Judicial forgiveness might be less likely, however, if the driver caused an accident when he took the call.

168. Jeffrey Nelson, Executive Director for Corporate Communications at Verizon Wireless, the nation's largest wireless company, said he did not know whether such screening systems existed. Nelson, *supra* note 128. Dynamic Science's Frances Bents said that she, too, was not aware of any cell phones that included this feature. Bents, *supra* note 30.

169. But even with distinctive ringing technology, cell phone users would still have to guess whether calls from a preprogrammed important number were true emergencies.

vent children from mistakenly calling parents when there was no threat to life and limb; this could lead to traffic tickets—assuming that cell phone regulations were in place—and needless driver risk. Perhaps the user would be willing to take this chance. What cell phone users might be unwilling to accept, however, is the limitation on their phone usage: those calling a phone programmed to produce a distinctive ring might be afraid to place calls in non-emergency situations because they would have no way of knowing whether or not the potential recipient happened to be on the road. This sort of inconvenience might be too much for many cell phone users.

Technology aside, Frances Bents contends that cell phone users should not receive any calls on the road because a ringing phone is likely to be jarring.¹⁷⁰ She adds that even screening audible messages would lead to some distraction, although less than having a conversation might.¹⁷¹ Perhaps until screening technology is available, or maybe even when it is, cell phone users should simply turn off their ringers while driving.

VIII. THE RESPONSE TO OTHER DISTRACTIONS ON THE ROAD

In addition to regulating cell phone use, legislators may want to grant police officers broader discretion to stop drivers for *any* behavior inside moving vehicles that is significantly distracting. First, the introduction and use of other distracting technologies in cars may outstrip a law that specifically prohibits only cell phones. For example, there have already been crashes involving drivers using laptop computers.¹⁷² Second, seemingly less dangerous activities, such as applying makeup, may be conducted in particularly distracting ways. In 1998, for instance, a state trooper in Virginia cited a woman for reckless driving because the woman was applying makeup over a mile-and-a-half stretch of rain-soaked roadway in heavy, bumper-to-bumper traffic.¹⁷³ The trooper said the woman was hunched forward toward the rearview mirror and, at one point, switched hands while putting mascara on both eyes.¹⁷⁴ The judge reduced the charge to improper driving but emphasized that the trooper had a right to stop the woman.¹⁷⁵ “He does not have to wait for an accident to occur,” the judge

170. Bents, *supra* note 30.

171. *Id.*

172. NAT’L HIGHWAY TRAFFIC SAFETY ADMIN., *supra* note 10, at 120, 131. The concern that more drivers may soon be using laptop computers while driving is only heightened by the introduction of new technologies that may facilitate laptop usage. One invention, called “Power Desk,” allows drivers to mount their laptop on their steering wheels. *See id.* (noting that the manufacturer says this device should only be used from a stationary automobile).

173. Wendy Melillo, *Conviction of Mascara-Appling Driver is Upheld*, WASH. POST, June 12, 1998, at C7, available at 1998 WL 11585893.

174. *Id.*

175. *Id.*

said.¹⁷⁶ Nor should officers have to wait for an accident to occur before citing drivers for other outrageous behaviors.¹⁷⁷ Third, despite the mascara incident and the existence of some flexibly worded driving laws,¹⁷⁸ police in at least some states generally do not cite drivers simply for engaging in distracting behavior.¹⁷⁹ Before an officer in Hilltown Township, Pennsylvania can make a stop, for instance, that officer must first witness the driver's car doing something illegal, such as weaving outside of its lane or exceeding the speed limit.¹⁸⁰ Officers in at least some other jurisdictions follow a similar policy. Accordingly, lawmakers may want to direct officers by statute to cite drivers for any and all significantly distracting behavior.

The word "significantly" would be an important element of any such statute. Its presence would ensure drivers' continued ability to engage in activities that are necessary and only minimally distracting, such as checking the speedometer or looking in the rearview mirror. It should also be interpreted to prevent the police from stopping motorists frivolously—merely for talking to a passenger, for example. Moreover, because this standard would give broader powers to law enforcement officers, there would exist a greater potential for abuse. One important concern is that some officers might use such a law to harass minority drivers.¹⁸¹ Lawmakers would have to consider carefully whether a "significant" standard would be strong enough to prevent such abuses.

Lawmakers should also consider modifying driver education programs to emphasize the dangers of distracted driving. The NHTSA has found that distracted drivers are a factor in twenty-five to fifty percent of all crashes,¹⁸² and studies have shown that a wide variety of distractions are to blame. These include visual distractions from outside the car, those created by other occupants, the distractions drivers create for themselves by tuning their radios while moving, and, of course, the distractions incident to cell phone use.¹⁸³ Drivers should be aware that taking their concentration away from driving, for whatever reason,

176. *Id.*

177. *E.g.*, Ahrens, *supra* note 60 (noting that officers have seen people urinating from open driver's side doors and others engaging in sexual acts).

178. *E.g.*, VA. CODE ANN. § 46.2-852 (1950) (providing that "any person who drives a vehicle on any highway recklessly or at a speed or in a manner so as to endanger the life, limb, or property of any person shall be guilty of reckless driving").

179. Telephone Interview with Bob Medairos, Sergeant, Arlington County Police Department (Nov. 21, 2000).

180. Trauger, *supra* note 42.

181. Matsuda, *supra* note 102.

182. Lyndsey Layton, *Crash Analysis Lets Cell Phones Off Hook; Critics Say Drivers Weren't Honest About Distractions*, WASH. POST, May 8, 2001, at B1, available at 2001 WL 17626877.

183. *See id.* A recent study of 5000 crashes shows that cell phones were a distraction in only 1.5% of the accidents. As Bents argues, however, that the low figure might simply reflect drivers' reluctance to admit using a cell phone at the time of a crash. *Id.*

can have disastrous consequences.

IX. CONCLUSION

As the cell phone debate continues, legislatures will have to make hard calls concerning the regulation of cellular technology on the road. Legislators may be inclined to follow the hand-held bans already in place, but they should strongly consider the possibility of a ban on both hand-held and hands-free phones. The case can, and perhaps should, be made that talking on the telephone is simply inconsistent with safe driving. As Bents has noted, we have all talked on telephones for most of our lives, yet when we are interrupted during a phone conversation, we must either stop the conversation or tell the person who has interrupted us that we are busy.¹⁸⁴ Similarly, most of us have found it extremely difficult to have a phone conversation while watching television at the same time. The point is that when we are talking on the phone, we cannot devote our full attention to another task.¹⁸⁵ And when that other task is driving a vehicle that weighs thousands of pounds at speeds upwards of sixty miles per hour, we ought to question whether anyone should be talking on the phone while driving.¹⁸⁶

184. Bents, *supra* note 30.

185. *Id.*

186. *Id.*

