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## Reach Out and Touch Someone: Cellular Phones Health, Safety and Reasonable Regulation

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REACH OUT AND TOUCH SOMEONE: CELLULAR PHONES  
HEALTH, SAFETY AND REASONABLE REGULATION

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I. INTRODUCTION

The case is a first of its kind in Nevada, and possibly a landmark nationally: Karen Morris was charged with three felony counts of reckless driving and two felony counts of involuntary manslaughter for a March 25, 2001 incident, where she allegedly caused a deadly traffic accident while talking on a cellular phone.<sup>1</sup> Police accounts report that Karen Morris, thirty-four, was traveling at sixty-four mph in a forty-five mph zone while talking on her cellular phone.<sup>2</sup> Morris ran a red light and crashed into another car, killing two people, Leona Grief, sixty-one, and her friend Marcia Nathans, sixty-five.<sup>3</sup> A third passenger, Elliot Nathans, forty-four, was injured.<sup>4</sup> Morris was let out on \$100,000 bail, on two conditions: (1) she was not to have a driver’s license; and, (2) she was not to drive a motor vehicle.<sup>5</sup>

The sweeping use of cellular phones in today’s society greatly affects all of our lives. A recent press release by the National Highway and Traffic Safety

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<sup>1</sup>ABC News, *Phoneslaughter*, available at <http://myabcnews.go.com/us/DailyNews/cellular010416.html> (Apr.16, 2001).

<sup>2</sup>*Id.*

<sup>3</sup>*Id.*

<sup>4</sup>*Id.*

<sup>5</sup>Tom Jones, *Judge Makes it Crystal Clear: Morris Not to Get Behind the Wheel*, available at <http://www.klas-tv.com/Global/story.asp?=40872> (July 20, 2001).

Administration (NHTSA) attributes some form of driver distraction as a contributing factor in twenty to thirty percent of all crashes.<sup>6</sup> From driver inattentiveness to warnings of cancer, American society is bombarded with the risks that are associated with cellular phone use. Cellular phone safety has even been advocated for children, which prompted Disney to stop licensing the use of its characters on cellular phones.<sup>7</sup>

In the midst of these fears, the U.S. government has increasingly been wary of cellular phone risks. There are recent federal bill proposals seeking to regulate the use of hand-held mobile telephones while driving.<sup>8</sup> Federal government agencies, such as the Food and Drug Administration (FDA) have teamed up with the Cellular Telecommunications and Internet Association (CTIA) in order to further research the health and safety implications from cellular phones.<sup>9</sup>

Legislation from most of the states also reveals a serious concern for the dangers of driving while using a cellular phone. In 1999, the city of Brooklyn, Ohio, issued a ban on the use of cellular phones while driving, which was the first in the nation.<sup>10</sup> This was followed by the first statewide ban on hand-held cellular phones for drivers in New York.<sup>11</sup>

Despite the health and safety concerns, cellular phones have been a pervasive part of everyday lives in the U.S. and abroad. For example, in Italy, Franciscan Monks were fit with new robes with special pockets that accommodate their cellular phones.<sup>12</sup> Not only do cellular phones help connect us to one another, but they have also been used for personal safety, for contacting loved ones, and in times of emergency. Cellular phones played a significant role in the September 11, 2001 terrorist attack on the U.S.. The people that were involved in this incident were no longer free to express their connection through the outside world except through means of modern communication. No longer were the airwaves used to conduct business, or corporate activity, they were used as means of conveying messages, and ensuring safety. For many, the last contact they had with relatives or loved ones was through the use of cellular phones.<sup>13</sup>

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<sup>6</sup>NHTSA, *NHTSA Reports on Major Survey Of Cell Phone Use by Drivers*, available at <http://www.nhtsa.org/nhtsa/announce/press/pressdisplay.cfm?year=2001&filename=pr3601.html> (July 23, 2001).

<sup>7</sup>Brian Ross, *Wireless Questions: Could Cell Phone Radiation Harm Your Child's Brain*, available at [http://abcnews.go.com/sections/primetime/2020/Primetime\\_001123\\_cellphones\\_feature.html](http://abcnews.go.com/sections/primetime/2020/Primetime_001123_cellphones_feature.html) (Nov. 23, 2000) (discussing Disney's discontinuance of licensing for its characters for use on cellular phones, as well as the Stewart Commission study and safety for children).

<sup>8</sup>H.R. 1837, 107<sup>th</sup> Cong. (2001). S. 927, 107<sup>th</sup> Cong. (2001).

<sup>9</sup>FDA, *FDA and CTIA to Collaborate on Cell Phone Research*, available at <http://www.fda.gov/bbs/topics/ANSWERS/ANS01020.html> (June 8, 2000).

<sup>10</sup>*Ohio Town Cracks Down On Driving Under Influence of Phone* (CNN television broadcast, Aug. 25, 1999).

<sup>11</sup>*New York Hand-Held Cell Phone Bill Signed Into Law* (CNN television broadcast, June 28, 2001).

<sup>12</sup>ANANOVA, *Monks Get Mobile Phone Habits*, available at [http://www.ananova.com/news/story/sm\\_449027.html?menu=](http://www.ananova.com/news/story/sm_449027.html?menu=) (Nov. 14, 2001).

<sup>13</sup>*Cell Calls From Planes Reveal Horror* (MSNBC television broadcast, Sept. 12, 2001).

There have been a variety of safety measures implemented in order to regulate cell phones, ranging from consumer advertising, to encouraging more education, and even enhancement of the cellular phone itself. For example, the CTIA lists ten tips for cell phones users to “minimize the potential for distraction.”<sup>14</sup>

This note seeks to address health and safety concerns associated with cellular phones as well as call for minimal regulation of cellular phones because of their beneficial nature to our society. Section II explains the origins of cellular phones and how cellular phones operate. Section III explains the health and safety risks associated with driver inattentiveness as a result of cellular phone use. Section IV of this note consists of the health and safety risks that have commonly been feared by use of cellular phones. Sections V and VI deal with the federal and state government response to the health and safety risks associated with cellular phones. Section VII is a contrast to the other sections because it deals with the positive aspects associated with cellular phone use. Section VIII examines proposed solutions to the various health and safety problems associated with cellular phones including more education, research, safety technology and programs, and enforcement of current laws regarding unsafe driving. Lastly, this note concludes with the proposal that in order to balance the health and safety risks posed by cellular phones with their use and utility, there must be minimal legislation and a focus on the proposed solutions: education, research, development of safety technology and programs, and enforcement of existing laws.

In a nine-part discussion, this note addresses issues concerning the health and safety risks associated with the use of cellular phones, which will also include a section that focuses on the advantages of using cellular phones. It is essential to maintain cellular phones and their utility in our lifestyle for personal safety and security. Health and safety problems with cellular phones must be addressed by the least restrictive regulation possible in order to ensure the continued use and the many benefits that the cellular phone industry presents to our society.

## II. ORIGINS OF CELLULAR PHONES

A cellular telephone is a wireless device that transmits messages with radio signals, and enables communication over a wide area, using a network of radio antennas and transmitters arranged in small geographical areas called “cells.”<sup>15</sup> Cells may vary in size and number according to the network’s extent.<sup>16</sup> Callers use a cellular telephone unit, which serves as a radio transmitter and receiver and enables the user to make or receive calls.<sup>17</sup> According to the Federal Communications Commission (FCC) these units go by a variety of names including, wireless phones, or cellular (cell) phones, mobile phones or PCS (Personal Communication Services) phones.<sup>18</sup> Radio waves send the call to an antenna transmitter where the call is made, and the transmitter relays

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<sup>14</sup>CTIA, *Frequently Asked Questions & Fast Facts Wireless Phones & Driving Safety*, available at <http://www.wow-com.com/consumer/issues/driving/articles.cfm?ID=95#six> (last visited Oct. 16, 2001).

<sup>15</sup>WORLD BOOK ENCYCLOPEDIA 340 (3d ed. 1998).

<sup>16</sup>*Id.*

<sup>17</sup>*Id.*

<sup>18</sup>FCC, *Consumer Update on Wireless Phones*, available at <http://www.fda.gov/cdrh/ocd/mobilphone.html> (July 18, 2001).

the message to a mobile telephone switching office (MTSO).<sup>19</sup> The MTSO sends out the call to a local phone company which sends the call to the receiver or a long-distance company.<sup>20</sup> As you pass from one cell to another, "your call is transferred or 'handed off' to the next cell without any noticeable interruptions."<sup>21</sup> All devices that transmit radio signals emit radio-frequency radiation, which is electromagnetic energy emitted in the form of waves.<sup>22</sup> Cellular antenna opponents contend that the electromagnetic energy emitted from the antennas is harmful.<sup>23</sup> Also residents of cities often oppose the erection of wireless towers and antennas based on a combination of concerns including health effects of radio frequency emission as well as aesthetics.<sup>24</sup>

The basic concept of cellular phones evolved in 1947, when researchers looked at mobile car phones and realized that they could increase the traffic capacity of mobile phones by using small cells with frequency reuse.<sup>25</sup> In response to a 1947 AT&T proposal to allocate a large number of radio-spectrum frequencies so that mobile phone service would be feasible, the FCC decided only to allocate a limited amount of frequencies, which in turn was not a market incentive for further research by the phone companies.<sup>26</sup> In 1968, the FCC reconsidered its position, and considered increasing the frequencies allocation, and freeing the airwaves for more mobile telephones on the condition that enough technology existed to build a better mobile service.<sup>27</sup> By 1977, AT&T and Bell Labs constructed a prototype cellular system and by 1982, the FCC authorized commercial cellular service for the U.S..<sup>28</sup>

From the start, cellular phones caused controversy and today the trend continues. However, the establishment of these devices into our everyday lives cannot be overlooked and should be taken into consideration by lawmakers and concerned citizens alike.

### III. PROBLEM AREAS: DRIVER INATTENTIVENESS

With the ubiquitous nature of cellular phones in our everyday lives, driving while using a cellular phone has become as common place as eating, putting on makeup, and the other daily activities that are done each day by individuals in their automobiles. The CTIA estimates that there are more than 120 million cellular phones in operation

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<sup>19</sup>See WORLD BOOK, *supra* note 15, at 340.

<sup>20</sup>*Id.*

<sup>21</sup>ROBERT A. STEUERNAGEL, *THE CELLULAR CONNECTION: A GUIDE TO CELLULAR PHONES* 6 (2000).

<sup>22</sup>JAMES WALSH, *TRUE ODDS: HOW RISK AFFECTS YOUR EVERYDAY LIFE* 114 (1995).

<sup>23</sup>*Id.*

<sup>24</sup>Laura Dichiaro, *Wireless Communication Facilities: Siting for Sore Eyes*, 6 BUFF. ENVTL. L.J. 1, 2 (1998).

<sup>25</sup>Mary Bellis, *Selling the Cell Phone: History of Cellular Phones*, available at <http://inventors.about.com/library/weekly/aa070899.htm> (last visited Nov. 4, 2001).

<sup>26</sup>*Id.* (noting that limits by the FCC made only twenty-three phone conversations possible simultaneously in one service area).

<sup>27</sup>*Id.*

<sup>28</sup>*Id.*

in the U.S.<sup>29</sup> A large majority of these cellular phones are used to conduct business, in case of emergencies, to keep in touch with loved ones, or for assistance and reporting dangerous situations to authorities.<sup>30</sup>

It is estimated by NHTSA that at any given time, an estimated three percent of those driving passenger vehicles are talking on hand-held cellular phones.<sup>31</sup> This agency estimates that 500,000 drivers of passenger vehicles (cars, vans, sport utility vehicles and pickups) are talking on hand-held cell phones during any given daytime during the week.<sup>32</sup> This research represents the first observational study by NHTSA of active cellular phone use by drivers; the data collectors observed more than 12,000 vehicles between 8 a.m. and 6 p.m. during a period spanning October and November 2000.<sup>33</sup> Female drivers were observed more frequently using cellular phones while driving than were male drivers.<sup>34</sup> Despite this research, the benefits of cellular phones, according to NHTSA, include faster emergency medical service response, quicker conveyance of information to authorities about road hazards or problem drivers, and heightened personal security for occupants of phone-equipped vehicles.<sup>35</sup>

Advocates for cellular phone use in cars point to other forms of driver distraction. For example, an article on CTIA's website points to the fast-food industry as encouraging people to eat while they drive by making food more convenient for people on the go.<sup>36</sup> A study by the American Automobile Association (AAA) has found that eating or drinking while driving is the second most common distraction behind activities outside the car that are involved in traffic accidents.<sup>37</sup> A 2001 restaurant industry study found that most Americans ate almost one of every five meals in their cars; fast-food experts consider road food a fast-growing part of the business.<sup>38</sup> There has also been a study by the University of North Carolina that used data of crashes from 1995 through 1999 and included 32,303 vehicles.<sup>39</sup> The study found that the following factors represented the following percentages of driver distraction and

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<sup>29</sup>*Study: All Cell Phones Distract Drivers* (CNN television broadcast, Aug. 16, 2001).

<sup>30</sup>MATT SUNDEEN, CELL PHONES AND HIGHWAY SAFETY: 2000 STATE LEGISLATIVE UPDATE (Dec. 2000), available at <http://www.ncsl.org/programs/ESNR/2000cell.htm>.

<sup>31</sup>*NHTSA Reports on Major Survey Of Cell Phone Use by Drivers*, *supra* note 6. (overall estimate of driver hand-held cell phone use has a margin of error of one percentage point).

<sup>32</sup>*Id.*

<sup>33</sup>*Id.*

<sup>34</sup>*Id.*

<sup>35</sup>NHTSA, *Cellular Phones, Other Wireless Devices Offer Benefits, Carry Risks*, available at <http://www.nhtsa.dot.gov/people/injury/research/wireless/nht0918.html> (Jan. 7, 1998).

<sup>36</sup>Michael Cabanatuan, *Danger Lurks at Takeout Window/Driving-Risks Studies Spur Little Reaction*, available at <http://www.wow-com.com/news/archives/news.cfm?id=4524&SearchSection=&SearchCriteria> (April 16, 2001).

<sup>37</sup>*Id.*

<sup>38</sup>*Id.*

<sup>39</sup>University of North Carolina, *Distracted Drivers Pose Safety Hazard, According to New UNC Study*, available at <http://www.unc.edu/news/newsserv/univ/may01/distract050801.htm> (May 8, 2001).

accidents: distractions outside the vehicle (29.4); adjusting a radio or CD player (11.4); talking to other occupants (10.9); adjusting vehicle or climate controls (2.8); eating or drinking (1.7); cell phone use (1.5), and smoking (0.9).<sup>40</sup>

Driver distraction has been a great problem in today's society. However, as studies reveal there are other forms of driver distraction that cause greater risk to the health and safety of drivers than do cellular phones. By eliminating unnecessary risks and following the advice of safety experts, these hazards are likely to be reduced.

#### IV. HEALTH AND SAFETY FEARS ASSOCIATED WITH CELLULAR PHONE USE

Recently, concern over the safety of children using cellular phones has grown. A British study done by the Stewart Commission found, *inter alia*, that a precautionary approach must be taken with children using cellular phones until more is known about the possible health risks.<sup>41</sup> This study found that more caution must be taken with a child using a cellular phone because of three factors: first, a child's head is small and more vulnerable to radio frequencies than an adult's head; second, since a child's skull is thinner, it is less resistant to radiation penetration; and third, the length of time in use (because children are starting their use of cellular phones at a younger age they have a longer total lifetime of exposure to radiation).<sup>42</sup>

However, the American cell phone industry and its scientific consultants have raised skepticism about the evidence relied upon by the Stewart Commission study.<sup>43</sup> Dr. John Moulder of the Medical College of Wisconsin, who has served as a paid consultant for British, Australian and American cellular companies, has stated regarding the evidence of risk to children from cellular phones, "I don't know of any evidence and I don't see the Stewart Commission presented any."<sup>44</sup> Despite these criticisms, experts recommend that children under age ten should not use wireless devices of any type; for children over the age of ten, pagers are often preferable to wireless phones because they are not near the head and can be used away from the body.<sup>45</sup>

There have also been fears by other groups in regard to safety and cellular phones. Exxon warned dealers of an "extremely unlikely" risk of explosion when using cell phones near gas pumps.<sup>46</sup> Exxon decided to take the action despite the absence of any confirmed incidents linking cell phones to explosions at service stations.<sup>47</sup> The action

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<sup>40</sup>Charles Wilson, *Distracted Driving Needs More Attention*, MODERN BULK TRANSPORTER, June 21, 2001.

<sup>41</sup>Brian Ross & Isaiah Wilner, *Wireless Questions: Could Cell Phone Radiation Harm Your Child's Brain?*, available at [http://abcnews.go.com/section/primetime/2020/Primetime\\_001123\\_cellphones\\_feature.html](http://abcnews.go.com/section/primetime/2020/Primetime_001123_cellphones_feature.html) (Oct. 2, 2001).

<sup>42</sup>*Id.*

<sup>43</sup>*Id.* (The Stewart Commission report is available online at <http://www.iegmp.org.uk>.)

<sup>44</sup>*Id.*

<sup>45</sup>DR. GEORGE CARLO & MARTIN SCHRAM, CELL PHONES: INVISIBLE HAZARDS IN THE WIRELESS AGE: AN INSIDER'S ALARMING DISCOVERIES ABOUT CANCER AND GENETIC DAMAGE 250 (2001).

<sup>46</sup>*Exxon Warns Dealers of Cell Phone Risks* (CNN television broadcast, June 24, 1999).

<sup>47</sup>*Id.*

taken was prompted by warnings received from several cellular phone manufacturers, which have been unnamed.<sup>48</sup>

There have also been purported risks of cell phones associated with disrupting heart pacemakers. The problems did not surface when the phone was held over the ear, but only when the phone held was next to the pulse generator.<sup>49</sup> Factors that influence the risk include the type of signal emitted by the phone, the model of the cellular phone, and the make and model of the pacemaker.<sup>50</sup> The effects from digital cellular phones caused heart-regulating pacemakers to slow down, shut off or speed up the heart rate.<sup>51</sup>

Beyond interfering with pacemakers, a Mayo Clinic Study found that cellular phones also interfere with the operation of external devices that monitor the heart and lungs in hospitals.<sup>52</sup> In most instances the interference did not encumber interpretation of data.<sup>53</sup> The most meaningful interruption occurred when the cellular phone was held one to two inches away from the vulnerable area of external cardiopulmonary monitoring devices.<sup>54</sup> Researchers hypothesized that if the cellular phone was at a reasonable distance (sixty inches away in the study) from electrical equipment it was unlikely that any malfunction would occur.<sup>55</sup> The study also found that cellular phone bans in hospitals are not based on objective scientific data, but on the theoretical concern about cellular phones interfering with hospital equipment.<sup>56</sup>

Fears about the unknown are common among today's society. In order to calm these fears associated with cellular phones, there must be proper observance of safety measures and further education about the health and safety risks associated with cellular phones.

#### V. FEDERAL RESPONSE: HEALTH AND SAFETY RISKS AND CELLULAR PHONES

In response to the concerns of health and safety experts, the House of Representatives and Senate have proposed bills. The need for the federal legislation was described as, "a realization that vehicle accidents due to distracted driving are on the rise."<sup>57</sup>

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<sup>48</sup>*Id.*

<sup>49</sup>*Got A Pacemaker? Be Careful With that Cell Phone!* (CNN television broadcast, May 21, 1997).

<sup>50</sup>*Id.*

<sup>51</sup>*Study Finds Digital Cell Phones Can Pose Risk to Pacemaker Patients: Analog Cell Phones 'Safer,' Researcher Says* (CNN television broadcast, May 16, 1996).

<sup>52</sup>*Mayo Clinic Study Finds Cellular Telephones May Interfere With Medical Devices*, MAYO CLINIC: ROCHESTER NEWS, Jan. 9, 2001.

<sup>53</sup>*Id.*

<sup>54</sup>*Id.*

<sup>55</sup>*Id.*

<sup>56</sup>*Id.* Interference of some extent was measured in seven of the seventeen devices (41 percent); among the 526 tests, interference was deemed clinically important in 7.4 percent. *See Cellular Phone Interference With External Cardiopulmonary Monitoring Devices*, MAYO CLINICAL PROCEEDING (Jan. 2001).

<sup>57</sup>Wilson, *supra* note 40.



The House bill, titled the "Call Responsibly and Stay Healthy Act 2001" proposed May 15, 2001 by Representative Gary Ackerman of New York, seeks to direct the Secretary of Transportation to withhold highways funds from any State that permits any individual to use a hand-held mobile telephone while operating a motor vehicle.<sup>58</sup> This bill was referred to the House Committee on Transportation and Infrastructure.<sup>59</sup> The requirements to meet the objective of this bill would require a state to enforce a "law that makes unlawful throughout the State the use of a hand-held mobile telephone by an individual who is operating a motor vehicle."<sup>60</sup> This bill also provides for exceptions in cases where an individual is using a hand-held cellular phone in case of emergency or when, an individual uses a "hand-held mobile telephone with a device that permits hands-free operation of the telephone."<sup>61</sup> This bill also provides for the repercussions of compliance as well as non-compliance by the States and the distribution or nondistribution of funds in both cases.<sup>62</sup>

The Senate bill, titled "Mobile Telephone Driving Safety Act of 2001," proposes similar action by the states and seeks to "provide for prohibition on use of mobile telephones while operating a motor vehicle."<sup>63</sup> This bill introduced in the Senate on May 22, 2001 by Senator Jon Corzine of New Jersey was referred to the Senate Committee on Environment and Public Works.<sup>64</sup> This bill introduces the definition of motor vehicle as "a vehicle driven or drawn by mechanical power and manufactured primarily for use on public highways, but does not include a vehicle operated only on a rail."<sup>65</sup> This bill is similar to the House bill, in that it provides for withholding of funds in apportionment for noncompliance with its stipulations.<sup>66</sup> The bill requires that a

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<sup>58</sup>H.R. 1837, 107<sup>th</sup> Cong. (2001). The bill reads in pertinent part:

(b) Withholding of Apportionments for Noncompliance.

(1) Fiscal year 2004. The Secretary shall withhold 5 percent of the amount required to be apportioned to any State under each of paragraphs (1), (3), and (4) of section 104(b) on October 1, 2003, if the State does not meet the requirements of paragraph (3) on that date.

(2) Subsequent fiscal years. The Secretary shall withhold 10 percent of the amount required to be apportioned to any State under each of paragraphs (1), (3), and (4) of section 104(b) on October 1, 2004, and on October 1 of each fiscal year thereafter, if the State does not meet the requirements of paragraph (3) on that date.

*Id.*

<sup>59</sup>*Id.*

<sup>60</sup>*Id.*

<sup>61</sup>*Id.*

<sup>62</sup>H.R. 1837, 107<sup>th</sup> Cong. (2001).

<sup>63</sup>S. 927, 107<sup>th</sup> Cong. (2001).

<sup>64</sup>*Id.*

<sup>65</sup>*Id.*

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State enact laws prohibiting individuals from using a mobile telephone while operating a “motor vehicle.”<sup>67</sup> Exceptions are made in cases of emergency or other “exceptional circumstance,” or with the use of mobile telephones with hands-free devices, “if the state determines that such use does not pose a threat to public safety.”<sup>68</sup> As with the House bill, the Senate bill also treats the effects of compliance as well as noncompliance.<sup>69</sup>

Beyond the response by NHTSA, federal agencies such as the FCC and the FDA have also responded to concerns about health and safety risks associated with cellular telephones. The FCC, an independent government agency directly responsible to Congress, regulates interstate and international communications by radio, television, wire, satellite and cable.<sup>70</sup> The FCC website hosts a variety of links which feature cell phones.<sup>71</sup> One such link on this website discusses the “facts,” “fiction” and “frequency” of cellular phones.<sup>72</sup>

The FCC website includes a section about how cellular phones should be used in emergency situations. In an emergency situation, the FCC recommends calling 911 in most areas of the country, with the caveat that, “[w]hen you speak to the operator, be sure to give your name, cell phone number (including area code) and exact location. Not all jurisdictions have systems that can provide this information automatically.”<sup>73</sup>

The FCC also has adopted limits for safe exposure to radiofrequency (RF) energy, which are given in terms of a unit commonly referred to as the Specific Absorption Rate (SAR), which is the measure of RF energy in the body.<sup>74</sup> Also, the FCC “requires cell phone manufacturers to ensure that their phones comply with these objective limits for safe exposure.”<sup>75</sup> Any cellular phone that is at or below SAR levels indicated by the FCC is considered to be a “safe” phone.<sup>76</sup> In an effort to extent their findings to

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October 1, 2003, if the State does not meet the requirements of paragraph (3) on that date.

(2) Subsequent fiscal years. The Secretary shall withhold 10 percent of the amount required to be apportioned to any State under each of paragraphs (1), (3), and (4) of section 104(b) on October 1, 2004, and on October 1 of each fiscal year thereafter, if the State does not meet the requirements of paragraph (3) on that date.

*Id.*

<sup>67</sup>*Id.*

<sup>68</sup>S. 927, 107<sup>th</sup> Cong. (2001).

<sup>69</sup>*Id.*

<sup>70</sup>FCC, *About the FCC*, available at <http://www.fcc.gov/aboutus.html> (last visited Nov. 22, 2001).

<sup>71</sup>*Id.*

<sup>72</sup>FCC, *Cell Phones-Helping Consumers Make Sense of the Market*, available at [http://www.fcc.gov/cib/cell\\_phones.html](http://www.fcc.gov/cib/cell_phones.html) (last visited Nov. 24, 2001).

<sup>73</sup>*Id.*

<sup>74</sup>*Id.*

<sup>75</sup>*Id.*

<sup>76</sup>*Id.* Information concerning SAR levels for many phones is available electronically through the FCC’s Office of Engineering and Technology, at <http://www.fcc.gov/oet/rfsafety>, or by calling the FCC’s information line for RF Safety, (202) 418-2464.

local officials and communities, the FCC and the Local and State Government Advisory Committee (LSGAC) released a "Plain English" guide titled "A Local Government Official's Guide to RF Emission Antenna Safety: Rules, Procedures, and Practical Guidance" on antenna emission health and safety.<sup>77</sup> The FCC website describes the purpose of the guide is to "inform citizens and to help state and local government officials play an important role in ensuring that innovative and beneficial communications services in the wireless telecommunications and broadcast industries are provided to the public in a manner consistent with public health and safety."<sup>78</sup>

In response to the health and safety concerns commonly associated with cellular phones, the FCC responded by stating, "[t]here is no scientific evidence to date that proves that wireless phone usage can lead to cancer or other adverse health effects, such as headaches, dizziness, elevated blood pressure, or memory loss."<sup>79</sup> The FCC points to the fact that studies are ongoing and key government agencies like the FDA are also working on the subject.<sup>80</sup> However, the FCC does acknowledge the potential health risk from cellular phones in regard to pacemakers, which can cause interference with implanted cardiac pacemakers under certain conditions.<sup>81</sup>

Another government agency, the FDA, has been charged with regulating radiation-emitting products, including cellular telephones. The FDA mission "is to promote and protect the public health by helping safe and effective products reach the market in a timely way, and monitoring products for continued safety after they are in use."<sup>82</sup> The FDA admits cellular phones emit low levels of RF energy but it is unknown whether these low levels can cause biological damage as do high levels of RF energy.<sup>83</sup> The FDA website states, "the available science does not allow us [the FDA] to conclude that mobile phones are absolutely safe, or that they are unsafe."<sup>84</sup> However, the website also states that the available scientific evidence indicates that there are no "adverse" health risks incurred by individuals using cellular phones.<sup>85</sup>

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<sup>77</sup>FCC, *FCC and Local Government Advisory Group Release "Plain English" Guide on Antenna Emission Health and Safety; Designed to Help Local Officials and Communities*, available at [http://www.fcc.gov/Bureaus/Engineering\\_Technology/News\\_Releases/2000/nret0008.html](http://www.fcc.gov/Bureaus/Engineering_Technology/News_Releases/2000/nret0008.html) (June 2, 2000).

<sup>78</sup>*Id.* The guide is available on the FCC's RF safety web page, at [www.fcc.gov/oet/rfsafety](http://www.fcc.gov/oet/rfsafety).

<sup>79</sup>FCC, *Cell Phones-Helping Consumers Make Sense of the Market*, available at [http://www.fcc.gov/cib/cell\\_phones.html](http://www.fcc.gov/cib/cell_phones.html) (last visited Nov. 24, 2001).

<sup>80</sup>*Id.*

<sup>81</sup>*Id.* (referring to studies that show that cellular phones can interfere with cardiac pacemakers when placed within eight inches of the pacemaker during use, and recommending, "[t]o avoid this potential problem, pacemaker patients may want to avoid placing a phone in a pocket close to the location of their pacemaker.").

<sup>82</sup>FDA, *About the US Food and Drug Administration*, available at <http://www.fda.gov/opacom/hpview.html> (last visited Nov. 25, 2001).

<sup>83</sup>FDA, *Mobile Phones (Wireless Cell Phones and PCS Phones)*, available at <http://www.fda.gov/cdrh/phones/index.html> (last visited Nov. 24, 2001).

<sup>84</sup>*Id.*

<sup>85</sup>*Id.*

The FDA describes its role concerning the safety of wireless phones as having “authority to take action if wireless phones are shown to emit radiofrequency (RF) energy at a level that is hazardous to the user.”<sup>86</sup> In such a case the FDA could require manufacturers of wireless phones to notify users of the health hazard, and to repair, replace, or recall the phones in an effort to ensure that the hazard no longer exists.<sup>87</sup> The FDA has urged the wireless industry to take steps to increase safety including: supporting needed research into possible biological effects of RF emitted by cellular phones; designing wireless phones that minimize RF exposure to the user that is not necessary for function of the device; and cooperating in providing users of wireless phones with the best information possible on effects of wireless phone use on human health.<sup>88</sup>

The FDA also called for more research in order to decide whether RF exposure from cell phones poses a health risk. The FDA called for a combination of laboratory studies and epidemiological studies of people actually using wireless phones.<sup>89</sup> However it finds that the interpretation of epidemiological studies is hampered by difficulties in measuring the actual RF exposure during the daily use of cellular phones; factors such as the angle at which the phone is held, or the model of the phone used affect this measurement.<sup>90</sup> Also the FDA is working with agencies such as the National Toxicological Program, World Health Organization International (WHO), and the CTIA<sup>91</sup> in order to ensure that more information is found about the health effects of cellular phones.<sup>92</sup>

#### VI. STATES RESPONSE: HEALTH AND SAFETY RISKS AND CELLULAR PHONES

The States and U.S. territories have also responded to the health and safety risks associated with driving and talking on cell phones by attempting to pass legislation to regulate talking on mobile phones and driving, and have studies on the health and safety risks of driving while dialing.<sup>93</sup>

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<sup>86</sup>FDA, *Consumer Update on Wireless Phones*, available at <http://www.fda.gov/cdrh/ocd/mobilphone.html> (July 18, 2001).

<sup>87</sup>*Id.*

<sup>88</sup>*Id.*

<sup>89</sup>*Id.*

<sup>90</sup>*Id.*

<sup>91</sup>*FDA and CTIA to Collaborate on Cell Phone Research*, *supra* note 9. The estimated time for this research is from three to five years. The full research agreement is available at <http://www.fda.gov/cdrh/ocd/wlessphonecrada.html>.

<sup>92</sup>FDA, *Consumer Update on Wireless Phones*, available at <http://www.fda.gov/cdrh/ocd/mobilphone.html> (July 18, 2001).

<sup>93</sup>In 2001, Arizona, Arkansas, California, Connecticut, District of Columbia, Florida, Georgia, Hawaii, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Puerto Rico, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, Wisconsin, and Wyoming have tried to pass legislation on the topic of cell phone safety while driving. For a list of all the bills proposed in 2001 and status, see <http://www.cellularsafetycommission.com/litigation.htm>.

The pioneer in such legislation in the U.S. was in the city of Brooklyn, Ohio.<sup>94</sup> Mayor John Coyne proposed the law banning cell phone use while driving to promote safety.<sup>95</sup> The city has posted signs along its roadways reading: "Park 2 Talk: It's the Law."<sup>96</sup>

Some states have also been successful in passing legislation regarding cellular phones. For example, New York, was the first state to pass a ban use of hand-held cellular phones while driving.<sup>97</sup> This law provides for exceptions in the case of communication with an emergency response operator, a hospital, physician's office or health clinic, ambulance company or corps, a fire department, district or company, or a police department.<sup>98</sup> This law also provides for exceptions for use of cellular phones by police officers, peace officers, members of the fire department, districts or companies, or operators of authorized emergency vehicles while acting in the scope of duty.<sup>99</sup> The last exception is given for use of hands-free cellular phones, which are defined by the law as:

[A] mobile telephone that has an internal feature or function, or that is equipped with an attachment or addition, whether or not permanently part of such mobile telephone, by which a user engages in a call without the use of either hand, whether or not the use of either hand is necessary to activate, deactivate or initiate a function of such telephone.<sup>100</sup>

New York Governor George Pataki has been quoted as saying, "driving a car is a serious responsibility that requires the attention, the full attention, of the driver."<sup>101</sup>

A recent case held that the New York statute prohibiting hand-held cellular phone use while operating a motor vehicle is constitutional.<sup>102</sup> The court, on its own motion

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<sup>94</sup>Rena A. Koontz, *Berea Drivers Soon May Be Calling For Trouble on Cell Phones*, PLAIN DEALER, Nov. 15, 2000, at 3B.

<sup>95</sup>*Id.*

<sup>96</sup>*Id.*

<sup>97</sup>N.Y. VEH. & TRAF. LAW § 1225-C(2)(a) (McKinney 2001). (requiring the commissioner of motor vehicles to study the effects of cellular phones while operating a motor vehicle). The law reads in pertinent part:

Section 6. The commissioner of motor vehicles, in consultation with the superintendent of the state police, shall study the effects of the use of mobile telephones and similar equipment in conjunction with the operation of a motor vehicle, and the effects of other forms of driver inattention and distraction, on highway and traffic safety, and shall submit a report of his or her findings to the governor, the majority leader of the senate, the speaker of the assembly, the minority leader of the senate, the minority leader of the assembly, and the chairs of the transportation committees of the senate and the assembly, not later than 4 years from the effective date of this act.

*Id.*

<sup>98</sup>*Id.* § 1225-C(3).

<sup>99</sup>*Id.*

<sup>100</sup>*Id.* § 1225-C(1)(e).

<sup>101</sup>*New York Hand-Held Cell Phone Bill Signed Into Law* (CNN television broadcast, June 28, 2001).

addressed the constitutionality of the statute before hearing the case charging Victoria Neville with violating the statute ten days after it went into effect.<sup>103</sup> In finding the statute constitutional, the court reasoned, “the legislative intent [behind the law] sets forth the need to protect its citizens from the numerous motor vehicle accidents and serious physical injuries that result from the use of hand held cell phones.”<sup>104</sup> The court also reasoned that burden of this law was no greater than using seatbelts, motorcycle helmets or prohibiting cigarette smoking in public buildings.<sup>105</sup>

The proposed legislation in other jurisdictions is not absolutely against using cellular phones while driving; instead most of the legislation has provided for exceptions. For example, in the District of Columbia there is an exception on the prohibition of cellular phone use for hands-free use and emergencies.<sup>106</sup> In Illinois the exception is similar; it allows the use of headsets while driving except for single-sided headsets or earpiece used for cellular phones.<sup>107</sup>

The proposed legislation not only deals with prohibition of hand-held cellular telephones while driving, it also includes preventative measures through study of the health and safety risks. Legislation in Georgia created a committee to study cellular telephone use while driving.<sup>108</sup> In Louisiana, a task force was created to study and make recommendations concerning driver distractions.<sup>109</sup> Legislation in California deals with rental cars and requiring written instructions for the safe use of cell phones while operating a motor vehicle provided to renters of rental cars with cell telephone equipment.<sup>110</sup>

State and federal government response through legislation and regulation increased recently in light of the fears associated with cellular phones. Over-regulation of cellular phones is not the answer in deterring health and safety problems associated with cellular phone use. Both the state and federal government should be ready to combat the health and safety risks associated with cellular phones by more education, research, development of safety technology and programs, and enforcement of existing laws concerning driver safety. Thus, our government’s response to the hazards associated with cellular phones should be associated with minimal, if any, regulation, and more education.

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<sup>102</sup>People v. Neville, 2002 N.Y. Misc. LEXIS, at \*11 (Just. Ct., Nassau County, Jan. 4, 2002).

<sup>103</sup>*Id.* at \*1.

<sup>104</sup>*Id.* at \*8.

<sup>105</sup>*Id.* at \*9.

<sup>106</sup>Perry Bacon Jr., *Cell Phone Industry Turns Out Against Bill; D.C. Weighs Ban On Hand-Helds While Driving*, WASH. POST, July 10, 2001, at B03.

<sup>107</sup>Joe Biesk, *Cell Phone Driving Law Looks Unlikely: Debate Picks Up Speed in Illinois*, CHI. TRIBUNE, July 30, 2001.

<sup>108</sup>S.R. 382, 146<sup>th</sup> Sess. (Ga. 2001).

<sup>109</sup>H.C.R. 35 (La. 2001) (enacted).

<sup>110</sup>CAL. VEH. CODE § 28090 (Deering 2001) (“Every renter of a motor vehicle with cellular radio telephone equipment shall provide the person who rents the motor vehicle with written operating instructions concerning the safe use of the equipment. The equipment shall also be clearly labeled with operating instructions concerning the safe use of the equipment.”).

## VII. CELLULAR PHONES: HELPFUL IN TIMES OF EMERGENCY

There have been many obvious benefits to the use of cellular phones. These benefits include the sense of personal security in times of emergency or in other dangerous situations. There are many reasons that cellular phones should continue to be a part of our everyday lives. One of these reasons is that cellular phones are helpful in times of emergency to summon help or notify authorities.<sup>111</sup>

One such emergency occurred on September 11, 2001. The terrorist attack on the U.S. killed thousands and left others stranded and in shock, fearful and angry. The attack against innocent people by knife-wielding terrorists on U.S. airliners has been indelibly branded on our minds and in our hearts. On that horrible day, terrorists unleashed an air assault on America's most influential political and financial centers. The terrorists hijacked four planes bound to California: American Airlines Flight 11 en route from Boston to Los Angeles; American Airlines Flight 77 en route from Dulles Airport in Washington D.C. to Los Angeles; United Airlines Flight 93 en route from Newark, New Jersey to San Francisco; and United Airlines Flight 175 flight from Boston to Los Angeles.<sup>112</sup>

September 11th attack reports indicate that there was a 1000 percent increase in cellular phone use in New York City.<sup>113</sup> In Washington D.C., there was a 400 percent increase in the usual amount of cellular phone calls.<sup>114</sup> A telecommunications expert and chief executive of the Precursor Group, Scott Cleland, states that the nation's phone network is designed to handle a routine Mother's Day of telephone calls; the surge in telephone and wireless traffic on September 11th comments Cleland, "[was] like five or 10 Mother's Days" all in one.<sup>115</sup>

During this horrible tragedy, cellular phones served many purposes; some of the final calls from aboard airplanes revealed the horror of the situation to loved ones, and in turn revealed essential clues to investigators.<sup>116</sup> On board American Airlines Flight 77, the plane that crashed into the Pentagon, former federal prosecutor and conservative political commentator Barbara Olson called her husband, U.S. Solicitor General Ted Olson, on a cellular phone two times, and told him that they were being hijacked, what the hijackers were doing, as well as what instruments were being used by the hijackers.<sup>117</sup> Another flight, flight 175, leaving Boston heading to Los Angeles, made a fatal turn when the terrorists took control of the plane in New York City and hit

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<sup>111</sup>Paul Hentzen, Comment, *The Trouble With Telematics: the Uneasy Marriage of Wireless Technology and Automobiles*, 69 UMKC L. REV. 845, 851 (2001).

<sup>112</sup>Michael Grunwald, *Terrorists Hijack 4 Airliners, Destroy World Trade Center, Hit Pentagon; Hundreds Dead*, WASH. POST, Sept. 12, 2001, at A01.

<sup>113</sup>*Attacks Slowed Phones, Internet* (MSNBC television broadcast, Sept. 12, 2001).

<sup>114</sup>*Id.*

<sup>115</sup>Christopher Stern & Jonathan Krim, *From Phones to TV, A Communications Mess Unfolds; Firms, People Scramble for Alternatives*, WASH. POST, Sept. 12, 2001 at A26. Mother's Day is one of the highest phone traffic days of the year.

<sup>116</sup>*Cell Calls from Planes Reveal Horror* (MSNBC television broadcast, Sept. 12, 2001).

<sup>117</sup>*Id.*

the South Tower of the World Trade Center.<sup>118</sup> A passenger on that flight, Brian Sweeney, called his wife, Julie, and left her a message that they were hijacked, and told her to have a “good life” and he would see her again someday.<sup>119</sup>

Cellular phones also revealed the plot that passengers on Flight 93, out of Newark were going to charge the cockpit in order to fight against the terrorist attacks. CeeCee Lyles, a passenger on United Flight 93, which eventually crashed in rural western Pennsylvania, called her husband at home in Fort Myers, Florida on her cellular phone, telling him, “We’ve been hijacked.”<sup>120</sup> On the same flight, Jeremy Glick used a cell phone to inform his wife, Lyzabeth, that they were going to rush the cockpit and try to subdue the terrorists.<sup>121</sup> Ten minutes into the thirty-minute call, Lyzabeth asked her father to call the FBI on a separate line.<sup>122</sup> Deanna Burnett, wife of Thomas E. Burnett, also received four calls from her husband, informing her that they “were going to do something” to stop the terrorists.<sup>123</sup> On that doomed flight, another person, Mark Bingham, allegedly one of the men that helped to rush the cockpit, managed to tell his aunt and mother that the plane was hijacked and for the last time, that he loved them.<sup>124</sup>

In order to honor the crew and passengers of United Airlines Flight 93 who sacrificed their own lives to stop the terrorists, both the Senate and the House have proposed bills to authorize the President to award posthumously the Congressional Gold Medal, the highest civilian honor, to the passengers and crew.<sup>125</sup> In addition to other reasons, this bill states that, “the passengers and crew of the United Airlines Flight 93 learned from cellular phone conversations with their loved ones of the fate of the three other aircraft that were hijacked earlier that same day and used as weapons to murder thousands of innocent people and destroy American landmarks.”<sup>126</sup>

Many Americans kept in touch with loved ones who were near the places where the tragedy struck. Kimberly Kuo, vice president of communications of the CTIA, tried to

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<sup>118</sup>David Maraniss, *September 11, 2001: Steve Miller Ate a Scone, Sheila Moody did Paperwork, Edmund Glazar Boarded a Plane: Portrait of a Day That Began in Routine and Ended in Ashes*, WASH. POST, Sept. 16, 2001, at A01.

<sup>119</sup>*Id.*

<sup>120</sup>*Id.*

<sup>121</sup>Charles Lane & John Mintz, *Bid to Thwart Hijackers May Have Lead to Pa. Crash*, WASH. POST, Sept. 13, 2001, at A01.

<sup>122</sup>*Id.*

<sup>123</sup>*Id.*

<sup>124</sup>*Id.*

<sup>125</sup>S. 1434, 107th Cong. (2001). Honoring the Passengers and Crew of United Flight 93 Act; H. R. Con. Res. 232, 107th Cong. (2001).

<sup>126</sup>S. 1434, 107th Cong. (2001); H.R. Con. Res. 232, 107th Cong. (2001) states in pertinent part:

Whereas while Flight 93 was still in the air, passengers and crew, through cellular phone conversations with loved ones on the ground, learned that other hijacked airplanes had been used in these attacks; Whereas during these phone conversations several of the passengers indicated that there was an agreement among passengers and crew to try to overpower the hijackers who had taken over the aircraft.

*Id.*



get in touch with her husband who works at the White House.<sup>127</sup> In addition to sending him e-mail using her wireless device (Blackberry), Kimberly and her husband also kept in touch by using cell phones, "I had my Blackberry in one hand and, literally, my cell phone on one ear all day long. Literally, it was just a blessing for me to have those devices."<sup>128</sup>

Beyond conveying information to authorities and loved ones, cellular phones also played a part in the efforts of rescue workers who were searching for survivors of the attacks. Emergency rescue workers battling smoke, ash, and debris, pulled survivors from the rubble of the World Trade Center, based on reports of cellular phone calls placed from people trapped inside the rubble.<sup>129</sup> There is an amazing tale of a rescue from the rubble of a man and two police officers after making such a cellular phone call; they attempted to call a local the emergency operator in New York but were unable to make a connection; the man then called his sister in Pennsylvania who got in touch with authorities.<sup>130</sup> Office workers were said to have communicated with their colleagues perhaps, by cell phone, which in turn helped rescue workers to pinpoint their location amidst the rubble.<sup>131</sup>

In addition to aiding rescue operations, cellular phones were also used by public safety officials in order to keep in touch. Several wireless companies gave thousands of cellular phones to public safety officials in New York and Washington, as well opening their stores to allow people to use phones to call out of New York, and even spend the night.<sup>132</sup> Various wireless companies offered their services as well as equipment in both Washington D.C. and New York City after the September 11th tragedy.<sup>133</sup> For example, Verizon Wireless provided 5000 cellular phones to emergency response authorities, and Motorola shipped thousands of mobile radios, batteries, base stations and other communications equipment to New York and Washington.<sup>134</sup> Other companies such as Nextel and AT&T Wireless loaned cellular phones to the Red Cross and to federal, state and local government agencies.<sup>135</sup>

The pressing need to contact loved ones and authorities in this time of emergency outweighed the prohibition promulgated by the Federal Aviation Administration (FAA) on airborne operation of cellular telephones in commercial airlines.<sup>136</sup> This

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<sup>127</sup>Cynthia L. Webb & Yuki Noguci, *When Phones Failed, New Technology Filled the Void*, WASH. POST, Sept. 13, 2001, at E07.

<sup>128</sup>*Id.*

<sup>129</sup>*U.S. Survivors Pulled from Manhattan Rubble*, PAKISTAN NEWSWIRE, Sept. 12, 2001.

<sup>130</sup>*Id.*

<sup>131</sup>Dean Murphy, *A Day Of Terror: The Hopes; Survivors Are Found in the Rubble*, N.Y. TIMES, Sept. 12, 2001, at A2.

<sup>132</sup>Stern & Krim, *supra* note 115.

<sup>133</sup>CTIA, *Wireless Companies Help With Relief Efforts*, available at <http://www.wow-com.com/articles.cfm?ID=596> (last visited Jan. 30, 2002).

<sup>134</sup>*Id.*

<sup>135</sup>*Id.*

<sup>136</sup>42 C.F.R. § 22.925 (2000). The text of the regulation reads as follows:

Cellular telephones installed in or carried aboard airplanes, balloons or any other type of aircraft must not be operated while such aircraft are airborne (not touching the ground).

prohibition was a result of concerns about use of cellular phones at high altitudes and their potential interference with ground-based communication networks.<sup>137</sup> In the aftermath of the attack, the wireless industry called the in-flight cellular phone ban into question.<sup>138</sup> However, there still are concerns with the radio signals that cellular phones emit and the possible interference with instruments on board the aircraft.<sup>139</sup> Yet, the dramatic calls made by the hijacked passengers did not sway the FAA to change its perceptions on in-flight cellular phone usage.<sup>140</sup> Agency spokesman, Hank Price, has been quoted as saying, “[t]he possibility of any disruption to an aircraft’s communications cannot be tolerated.”<sup>141</sup>

Cellular phones have also been used to lead rescuers to lost or stranded people. For example, rescuers found three hikers stranded in the Cascades on a snow-covered perch at 6800 feet after they used their cellular phones to call for help.<sup>142</sup> The rescuers led the group down by walking down the side of the mountain to safety.<sup>143</sup> In South Dakota, snowmobilers rescued a woman who slid into a ditch in a blizzard and was stranded in her pickup for nearly forty hours after a signal from her cellular phone was picked up by searchers.<sup>144</sup> The victim, Karen Nelson, called police with her cellular phone after she got stuck, and they remained in contact with her until she was rescued.<sup>145</sup> In Colorado, a man who fell about 200 feet down a rocky slope while climbing alone was rescued by authorities after he called using his cellular phone.<sup>146</sup> From his phone call, authorities were able to send a rescue helicopter to reach the man, which carried him for forty-five minutes to a spot where the helicopter could land safely.<sup>147</sup> In Alaska, a lone hiker and his dog triggered an avalanche by a nearby

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When any aircraft leaves the ground, all cellular telephones on board that aircraft must be turned off. The following notice must be posted on or near each cellular telephone installed in any aircraft: The use of cellular telephones while this aircraft is airborne is prohibited by FCC rules, and the violation of this rule could result in suspension of service and/or a fine. The use of cellular telephones while this aircraft is on the ground is subject to FAA regulations.

*Id.*

<sup>137</sup>*In-Flight Cell Phone Ban Called Into Question* (CNN television broadcast, Sept. 17, 2001).

<sup>138</sup>*Id.*

<sup>139</sup>*Id.*

<sup>140</sup>*Id.*

<sup>141</sup>*Id.*

<sup>142</sup>*Three Hikers, Stranded in Snow, Are Rescued*, SEATTLE TIMES, Oct. 15, 1996, at B1.

<sup>143</sup>*Id.*

<sup>144</sup>*Cell Phone Signal Leads Rescuers to Stranded Woman* (CNN Television Broadcast, Jan. 10, 1997).

<sup>145</sup>*Id.*

<sup>146</sup>*Climber Lifted to Safety Thanks to Cellular Phone*, ORLANDO SENTINEL, July 31, 2000, at A8.

<sup>147</sup>*Id.*

mountain and tumbled about 600 feet over rocks and boulders.<sup>148</sup> The hiker managed to hold on to his cellular phone and call for help; both the hiker and his dog were rescued.<sup>149</sup> The benefits of having a cellular phone in times of emergency are undisputable, these people and many more were rescued as a result of cellular phones.

Cellular phones have also been used to alert authorities of emergency situations. For example, at Turtle Creek in Fort Walton Beach Florida, a ten-year-old boy threw himself into the water and was missing for four days before he was found alive in a swamp.<sup>150</sup> His mother, Suzanne, borrowed a cellular phone to summon help, and within hours a twelve-person police team was wading through the murky waters looking for her son Taylor.<sup>151</sup>

There are many safety benefits associated with having a cellular phone in times of emergency. In fact, some cellular phones are specified just for times of emergency and only feature these services on their phone.<sup>152</sup> For example, a phone called the "SOS Emergency Phone" features free 911 calls, roadside assistance, and operator assisted phone calls.<sup>153</sup> Besides marketing for the general public, the company also boasts that its product is specifically designed for, "seniors, parents with young children, active teens and the physically challenged."<sup>154</sup> The phone is also advertised as having a low service fee charge and no monthly usage requirements.<sup>155</sup> Other cellular phones have special lower rate plans for people interested in using their phones strictly for times of emergency.<sup>156</sup>

The benefits associated with using cellular phones during times of emergency cannot be denied. Cellular phones have contributed to rescuing and saving many lives and will most likely continue to do so in the future. By protecting the public through education, research, development of safety technology and programs, and enforcement of existing laws, the industry can maintain the use and utility of cellular phones in times of emergency. This in turn will maintain the safety benefits that cellular phones offer to our society.

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<sup>148</sup>Molly Brown, *Seriously Injured Hiker Rescued After Alaskan Avalanche*, SAN DIEGO UNION-TRIBUNE, Nov. 13, 2000, at A-8.

<sup>149</sup>*Id.*

<sup>150</sup>Patrick Rogers & Fran Brennan, *Alive!; With Rescuers Beginning to Give Up Hope, 10-Year-Old Taylor Touchstone is Found, Surviving Four Days in a Deadly Florida Swamp*, PEOPLE MAG., Sept. 2, 1996, at 91.

<sup>151</sup>*Id.*

<sup>152</sup>SOS Emergency Phone, *available at* <http://www.sosphone.com/index.htm> (last visited Jan. 27, 2002) (offering a free phone for online orders).

<sup>153</sup>*Id.*

<sup>154</sup>*Id.*

<sup>155</sup>*Id.*

<sup>156</sup>STEUERNAGEL, *see supra* note 21, at 29. If the phone is used for times of emergency, there is most likely a phone plan that has a minimum-use or safety plan.

## VIII. SOLUTIONS

Solutions to health and safety problems associated with cellular phones should center on education, research, development of safety technology and programs, and enforcement of existing laws. These efforts combined would be more beneficial to cellular phone safety than regulation. In a country that is relying on cellular phones for many daily activities, cellular phone safety should be taken seriously. The solutions proposed will balance the utility of cellular phones in our everyday lives as well as address risks to the health and safety of cellular phone users.

## A. Education

Education is a key factor in making consumers aware of the dangers of using a cellular phone while driving. The media has been greatly influential in education by bringing driver inattentiveness to the forefront. For example, a Shell Oil commercial depicts people and common driving distractions they engage in such as eating, using cellular phones, and drinking a beverage. The advertisement directs the television watcher to go to the nearest Shell station and pick up a pamphlet entitled "Deadly Distractions."<sup>157</sup> The pamphlet states that, "driver distractions or inattentive driving play a part in one out of every four motor vehicle crashes. That's more than one-and-a-half million collisions a year — more than 4300 crashes everyday!"<sup>158</sup> The pamphlet features other distractions in addition to cellular phone use while driving, such as adjusting the radio, dealing with other occupants, eating and drinking, personal grooming, smoking, and outside distractions.<sup>159</sup> In regards to cellular phones, the pamphlet describes it as "dialing for disaster;" the pamphlet also cited a survey of 837 drivers with cellular phones and found that almost half swerved or drifted into other lanes, 23 percent tailgated, 21 percent cut someone off, and 18 percent nearly hit another vehicle while using the cellular phone.<sup>160</sup>

The cellular industry has also responded to fears of safety advocates with education. Since 1995, CTIA has sponsored a National Wireless Safety Week, which leads into Memorial Day weekend and consists of "The Seven Days of Safety."<sup>161</sup>

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<sup>157</sup>The author was surprised to see that this was #8 in a series (however not all dealt with driver distractions.) SHELL, DEADLY DISTRACTIONS: TIPS FOR KEEPING YOUR MIND ON THE ROAD (2001).

<sup>158</sup>*Id.* at 1.

<sup>159</sup>*Id.* at 2.

<sup>160</sup>*Id.* at 3. The pamphlet states the wireless phone manufacturers' solutions to being a safe driver if you absolutely have to use your phone while driving are:

- Pull off the road and stop in a safe place while using your phone
- When the phone rings, let it ring! It's better to use your phone's voicemail or even miss a call than to put yourself, your passengers or others at risk
- Become very familiar with your phone before using it on the road
- Never take notes or jot down numbers while driving

<sup>161</sup>CTIA, *Wireless Phones & Driving Safely National Wireless Safety Week*, available at <http://www.wow-com.com/consumer/issues/driving/articles.cfm?ID=189&SearchSection=&SearchCriteria=national%20wireless%20safety%20week> (last visited Nov. 6, 2001) (outlining Wireless Safety Week, and giving information about Wireless Safety Week's objective, which is, "to remind wireless phone customers that safety is their most important call, and to provide information consumers need to use their wireless phone responsibly.").

Wireless Safety week consists of Driver Safety Day, Community Safety Day, Safety Heroes Day, Personal Safety Day, Workplace Safety Day, Emergency Safety Day and Classroom Safety Day.<sup>162</sup> National Wireless Safety Week also seeks to raise awareness about the safety benefits derived from owning a mobile phone.<sup>163</sup> The wireless industry hopes these efforts and safety messages will generate new sales and ward off any unwelcome legislation.<sup>164</sup>

Another venture to educate consumers and drivers was launched by CTIA in January of 2001, the effort was aimed at drivers to remind them that their first priority behind the wheel is driving.<sup>165</sup> The program included a multimillion-dollar radio campaign and public service announcements.<sup>166</sup> Some of the advertisements reminded drivers that "state laws prohibit distracted driving."<sup>167</sup> Other advertisements balanced the safety concerns with cellular phones by stating their use and utility in emergency situations, "Carrying a wireless phone with you in your car is a good idea for a lot of reasons. In emergencies, it can be a valuable safety tool."<sup>168</sup>

Self-defense programs advocate that people carry cellular phones to prevent possible dangers and to help in times of emergency.<sup>169</sup> Melissa Abramovitz, in an article about self-defense programs, suggests carrying a cellular phone as "prevention" for warding off trouble.<sup>170</sup> The website [concerningwomen.com](http://www.concerningwomen.com) is a resource concerning issues for today's woman cautions women, "[i]f you often travel alone or travel to remote areas, carry a cell phone with you."<sup>171</sup> The Road Runners Club of America (RRCA) advises women runners to carry a cellular phone as one of its tips for running safety.<sup>172</sup>

#### B. Additional Research

Additional research and study is needed in order to properly address the health and problems associated with cellular phone use. Efforts by federal government agencies, such as NHTSA, the FCC, and the FDA, reflect that more research is needed in order

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<sup>162</sup>*Id.*

<sup>163</sup>Ben Chany & Gwendolyn Mariano, *Cell Phone Safety A Tough Call*, available at <http://news.cnet.com/news/0-1004-200-6008705.html> (May 22, 2001).

<sup>164</sup>*Id.*

<sup>165</sup>*Cell Phone Industry Backs More Education* (CNN Television Broadcast, June 28, 2001).

<sup>166</sup>*Id.*

<sup>167</sup>CTIA, *CTIA's Education Message*, available at <http://www.wow-lcom.com/consumer/issues/driving/articles.cfm?ID=179> (last visited Jan. 31, 2002).

<sup>168</sup>*Id.*

<sup>169</sup>Melissa Abramovitz, *Protecting Yourself Through Self-Defense: Self-Defense Programs Can Boost Your Self-Confidence and Help You Prepare for All Types of Scary Situations; First Aid & Safety*, CURRENT HEALTH 2, Nov. 1, 2001, at 22.

<sup>170</sup>*Id.*

<sup>171</sup>Patrick Mascoe, *A Women's Guide to Self-Defense*, available at [http://www.concerningwomen.com/e\\_article13.html](http://www.concerningwomen.com/e_article13.html) (last visited Jan. 30, 2002).

<sup>172</sup>RRCA, *The RRCA's Tips for Running Safety*, available at <http://www.rrca.org/women/> (last visited Jan. 30, 2002).

to truly understand and remedy any problems with cellular phones. The industry, as well as the government, has responded in various ways, which include collaborative research, studies, and experiments. For example, some of the objectives of the FDA collaboration with WHO includes encouraging focused, high quality research programs, identifying gaps in knowledge that need further research, assessing scientific literature and compiling status reports.<sup>173</sup> Collaboration between the FDA and CTIA includes the FDA providing research recommendations and research oversight and the CTIA providing funding for the research into the health effects of RF emissions from wireless phones.<sup>174</sup>

There are numerous studies and scholarly opinions about the health and safety risks associated with cellular phone use. However, the scientific community is still unsure about the real risks that cellular phones cause to health and safety. Thus, more research is needed in order to carefully regulate cellular phones without diminishing the use and utility of the phone in our everyday lives.

### C. Development of Safety Technology and Programs

More safety measures need to be implemented in order to ensure cellular phone safety. Hands-free devices are proposed by safety experts in order to combat the health and safety risks associated with hand-held cellular phones. A hands-free device using an external microphone and speaker allows a person to use a cellular phone without holding it in their hands.<sup>175</sup> The hands-free device is used by attaching the headset to the cellular phone or by installing a hands-free car kit that the cellular phone can be plugged into.<sup>176</sup> Hands-free calling may also include voice-activated dialing, which allows a cellular phone user to tell the phone the number that the person would like to call rather than manually dialing it.<sup>177</sup>

Despite the highly acclaimed health and safety benefits associated with using hands-free accessories, a recent study has revealed that all cellular phones, whether hands-free or hand-held, leads to poor driver performance.<sup>178</sup> This study, conducted by the University of Utah suggests that local laws which allow hands-free cell phone use will have little effect on the reduction of driver distractions.<sup>179</sup> This study had sixty-four participants who were asked to conduct various tasks, including changing radio stations, listening to the radio, books on tape, and talking on both hand-held and hands-free cellular phones while driving.<sup>180</sup> The study found that when participants were using a cellular phone their response times during stopping or braking were dramatically slower than those participants that were listening to the radio or a book on

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<sup>173</sup>WHO, *Project Summary*, available at <http://www.who.int/peh-emf/summary.htm> (Sept. 21, 2001).

<sup>174</sup>The full research agreement is available on the FDA's website, at [http://www.fda.gov/cellphone/ctia\\_crada.html](http://www.fda.gov/cellphone/ctia_crada.html).

<sup>175</sup>PENELOPE STETZ, *THE CELL PHONE HANDBOOK* 294 (1999).

<sup>176</sup>*Id.*

<sup>177</sup>*Id.* at 318.

<sup>178</sup>*Study: All Cell Phones Distract Drivers*, *supra* note 29.

<sup>179</sup>*Id.*

<sup>180</sup>*Id.*

tape.<sup>181</sup> Despite the results of this study, safety experts and legislatures have not been deterred from advocating the use of hands-free devices while using cellular phones.

Other safety measures have tried to address the criticisms by safety advocates of the difficulty in using cellular phones while in emergency situations. In the situation where Karla Gutierrez's car plunged into a canal off the Florida Turnpike and she was trapped in her car, she dialed 911 on her cellular phone.<sup>182</sup> Unfortunately, Karla did not know where she was; by the time help arrived she had drowned.<sup>183</sup> In order to prevent further fatalities like this, the FCC has ordered the wireless industry to create a way for emergency dispatchers to pinpoint calls from cellular phones.<sup>184</sup> In response, the CTIA expressed its commitment to help the FCC to implement a new wireless locating device for cellular phone callers who dial 911.<sup>185</sup> The enhanced 911 system, or "E-911," is designed to assist emergency dispatchers locate wireless callers when they call 911 or other local emergency numbers.<sup>186</sup>

Since 1996, the FCC has taken action to improve the quality and reliability of emergency 911 services for users of wireless phones by adopting rules governing basic 911 services and through the implementation of an E-911 system.<sup>187</sup> The basic rules require wireless carriers to transmit all the 911 calls to a Public Safety Answering Point (PSAP), disregarding the validation procedures intended to identify and intercept calls from non-subscribers.<sup>188</sup> The new rules would require that subscribers and nonsubscribers could call 911 and reach emergency personnel without having to prove their subscriber status.<sup>189</sup>

The process of the E-911 system comes in two phases. Phase I requires as of April 1, 1998, or within six months of a request by the designated PSAP, covered carriers to provide to the PSAP the telephone number of the originator of a 911 call and location of the cell site or base station receiving the call.<sup>190</sup> The FCC regards this information as being crucial to the rescue effort: "This information assists in the provision of timely emergency responses both by providing some information about the general location from which the call is being received and by permitting emergency call-takers to re-

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<sup>181</sup>*Id.*

<sup>182</sup>Carolyn Said & Carrie Kirby, *GPS Cell Phones May Cost Privacy*, available at [http://www.wow-com.com/news/archives/news.cfm?id=813&keywordSearch=1&keyword=san%20francisco%20chronicle&dateSearch=&days=&month\\_ID=&years=&startRow=1](http://www.wow-com.com/news/archives/news.cfm?id=813&keywordSearch=1&keyword=san%20francisco%20chronicle&dateSearch=&days=&month_ID=&years=&startRow=1) (Mar. 20, 2001).

<sup>183</sup>*Id.*

<sup>184</sup>*Id.*

<sup>185</sup>CTIA, *Industry Ready to Implement FCC-Approved Plans for E-911 Phase*, available at [http://www.wow-com.com/news/press/body.cfm?record\\_id=1002](http://www.wow-com.com/news/press/body.cfm?record_id=1002) Oct. 5, 2001.

<sup>186</sup>*Id.* For more information regarding E-911, see <http://www.fcc.gov/e911/Welcome.html#fact>.

<sup>187</sup>FCC, *Fact Sheet*, available at [http://www.fcc.gov/e911/factsheet\\_requirements\\_012001.txt](http://www.fcc.gov/e911/factsheet_requirements_012001.txt) (last visited Nov. 24, 2001).

<sup>188</sup>*Id.*

<sup>189</sup>*Id.*

<sup>190</sup>*Id.*

establish a connection with the caller if the call is disconnected.”<sup>191</sup> Phase II requires wireless carriers to provide Automatic Location Identification (ALI) beginning October 1, 2001.<sup>192</sup> In an effort to comply with the FCC-Approved Plans for E-911, CTIA has agreed to continue working to meet Phase II requirements in order to assist implementation of the E-911 system.<sup>193</sup> Thus, it seems as if the trend in technology is proceeding in direction of providing emergency dispatchers with the precise location where help is needed.<sup>194</sup>

Beyond safety in the forms of hands-free devices or E-911, the cellular industry has also tried to address concerns about radiation. The CTIA launched a program where it requires manufacturers to identify SAR levels in new CTIA certified phones.<sup>195</sup> The objective of this program is to make this information more accessible to the public and provide information to consumers about wireless telephones.<sup>196</sup> The CTIA also hopes to make it clear to consumers that, “all wireless phones marketed in the U.S. have been tested and meet the FCC RF exposure standard.”<sup>197</sup>

Some of the cell phone industry giants have also joined the bandwagon on safety. For example, Verizon Wireless is requiring phone manufacturers to include built-in speakerphones and voice-activated dialing by 2002.<sup>198</sup> OnStar, the car based navigation system owned by General Motors, launched two services based on voice technology: one service allows users to place calls by pressing a button and reciting the number they want to reach, and the other service lets users peruse the Internet with minimal distraction to the driver.<sup>199</sup> Other providers such as AT&T Wireless are providing vouchers for hands-free earpieces to subscribers.<sup>200</sup>

The cellular industry is also working with the auto industry in order to enable drivers to use cellular phones more safely. For example, the Ford Motor Company will offer a Cellport 3000 System, which is a hands-free, voice-activated system in its

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<sup>191</sup>*Id.*

<sup>192</sup>RADDCOMM, *Enhanced 911 Phases 1 and II*, available at <http://www.raddcomm.com/E-911%20overview.htm> (last visited Dec. 6, 2001).

<sup>193</sup>CTIA, *Industry Ready to Implement FCC-Approved Plans for E-911 Phase*, available at [http://www.wow-com.com/news/press/body.cfm?record\\_id=1002](http://www.wow-com.com/news/press/body.cfm?record_id=1002) (last visited Oct. 5, 2001).

<sup>194</sup>James X. Dempsey, *Communication in the Digital Age: Revitalizing the Federal Wiretap Laws to Enhance Privacy*, 8 ALB. L.J. SCI. & TECH. 65, 79 (1997).

<sup>195</sup>CTIA, *SAR & Wireless Phones: What Consumers May Want to Know*, available at <http://www.wow-com.com/consumer/issues/health/articles.cfm?ID=153> (last visited Jan. 31, 2002).

<sup>196</sup>*Id.*

<sup>197</sup>*Id.*

<sup>198</sup>*GM to Study Driver Distraction from In-Vehicle Gadgets* (CNN television broadcast, Oct. 20, 2000).

<sup>199</sup>*Id.*

<sup>200</sup>AT & T Wireless Advertisement (mailed Fall 2001).



cars.<sup>201</sup> The Cellport 3000 System will first be sold as a dealer-installed option and offered in most Ford vehicles by mid-2002.<sup>202</sup>

Cellular phones have been given to many groups in order to fight crime or help victims of crime. In 1996, President Clinton offered to donate 50,000 cellular phones to neighborhood watch groups.<sup>203</sup> The phones were pre-programmed to dial the police and fire departments, or other emergency services.<sup>204</sup> Many groups collect cellular phones and donate them to victims of domestic violence.<sup>205</sup> One group, The Wireless Foundation (a subsidiary of CTIA) has implemented a "Call to Protect" program that uses the cellular phones as a part of a domestic violence prevention project, providing instant access to help for those in danger.<sup>206</sup> In the program, victims of domestic violence are given free 911 services, and one non-emergency call.<sup>207</sup> All donated phones, new, broken or old, are received and repaired if needed, and are sent to various groups such as shelters, victims' advocacy programs, police departments and district attorneys' offices.<sup>208</sup> In addition to helping victims of domestic violence, some programs provide cellular headsets to seniors for emergency use.<sup>209</sup>

Other programs have included donation of cellular phones to schools.<sup>210</sup> For example, the Cricket Comfortable Wireless Company in Chattanooga, Tennessee, donated nearly 120 cellular phones to improve school safety.<sup>211</sup> The teachers involved in the program will be able to use the cellular phones in emergency situations, on the playground, on field trips and during after-school hours.<sup>212</sup> In addition to distributing cellular phones to teachers, some programs have also distributed cellular phones to school bus drivers to enable them to dial 911 in an emergency situation.<sup>213</sup>

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<sup>201</sup>Gary Bradford, *Technology Briefing Telecommunications: Ford Offers Phone System*, N.Y. TIMES, July 17, 2001, at C63.

<sup>202</sup>*Id.*

<sup>203</sup>*Cell Phones Will Be Given to Neighborhood Crime Watch Groups* (CNN television broadcast, July 17, 1996).

<sup>204</sup>*Id.*

<sup>205</sup>Christy Whitehead, *Getting Wired For Help: Agency Puts Cell Phones to Good Use*, FLORIDA TIMES-UNION, Dec. 15, 2001, at K-1.

<sup>206</sup>*Id.*

<sup>207</sup>*Id.*

<sup>208</sup>*Id.*

<sup>209</sup>Julie Bykowicz, *Phones to the Rescue; Help: Various Programs Provide Used Cellular Handsets to Seniors and Battered Women for Use in Emergencies*, BALTIMORE SUN, Aug. 27, 2001, at 1B.

<sup>210</sup>*Cricket Donates Wireless Phones to Local Schools*, CHATTANOOGA TIMES, Nov. 8, 2001, at B4.

<sup>211</sup>*Id.*

<sup>212</sup>*Id.*

<sup>213</sup>Ellen Lee, *Cell Phones Sought for School Bus Drivers*, WASH. POST, Nov. 2, 2000, at M05.

*D. Enforcement of Existing Laws*

Rather than over-regulation, a solution to the problem of cellular phone safety while driving is to enforce the existing laws in every state that deal with reckless and negligent driving. These laws give police the power to cite motorists for distractions that contribute to hazardous and unsafe driving. These statutes go by different names in different states, for example, Negligent Driving, Careless Driving, Inattentive Driving.<sup>214</sup> For example, in Ohio, where the first regulation of cellular phones was passed, there is a statute that states, “[n]o person shall operate a vehicle, trackless trolley, or streetcar on any public or private property other than streets or highways, in willful or wanton disregard of the safety of persons or property.”<sup>215</sup> In New York, where there was the first statewide ban of cellular phone use, there is also a statute regulating “Reckless Driving.”<sup>216</sup> Reckless driving, as defined by the statute, is driving “in a manner which unreasonably interferes with the free and proper use of the public highway, or unreasonably endangers users of the public highway.”<sup>217</sup> The New York statute prohibits reckless driving and finds violators of this law are guilty of a misdemeanor.<sup>218</sup> The use of hands-free devices required under most of the laws passed regarding cellular phone use in cars is a step in the right direction. However, hands-free devices are not enough, stricter enforcement of current laws and more research is needed. Lawmakers and citizens should be wary about over regulation that could eventually hamper the use and utility of cellular phones in our lives.

In order to quell the fears of safety experts as well as consumers, both the cellular industry and the government have responded. Education, research, development of safety technology and programs, and enforcement of existing laws are the keys to insure that cellular phones continue to benefit our everyday lives now and in the future. Consumer awareness can help to insure that cellular phones are used properly and safely while minimizing health and safety risks.

## IX. CONCLUSION

Cellular phones have become an everyday part of American lives and are as commonplace as cars themselves. Although there are safety risks and issues that need to be addressed, both federal and state legislatures should be wary of over-regulating cell phones. Over-regulation can diminish the value of cellular phones in our everyday lives, and even hinder the safety features. Rather a combination of education, research, development of safety technology and programs, and enforcement of existing laws would better serve the public and increase safety of cellular phones. Human behaviors are not easily regulated, thus understanding cellular phones and the health and safety problems associated with them will better serve society than over-regulation.

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<sup>214</sup>CTIA, *What is the Wireless Industry's Position With Respect to the Issue of Using a Wireless Phone While Operating a Motor Vehicle?*, available at <http://www.wow-com.com/consumer/FAQ/articles.cfm?ID=95> (last visited Jan. 30, 2002).

<sup>215</sup>OHIO REV. CODE ANN. § 4511.201 (Anderson 2001).

<sup>216</sup>N.Y. VEH. & TRAF. § 1212 (2001).

<sup>217</sup>*Id.*

<sup>218</sup>*Id.*

Balancing concerns of health and safety should be a primary concern of the state and federal government. However, this concern should not come at the expense of the utility of cellular phones in our everyday lives. Cellular phones have helped and will continue to help many people in times of emergency. With the improved technology of cellular phones, dispatchers will be able to pinpoint a distressed caller and send help. Technology should not only be used to make our everyday lives easier, but also to make the world a safer place to live. Cellular phones have done that, bringing convenience to our fingertips and making sure that consumers feel safe with their cellular phone nearby.

Education is a key in learning about the health and safety aspects of cellular phones. Consumers need to be educated about how to use cellular phone safely and properly in order to minimize the health and safety risks that are commonly associated with cellular phones. As one writer comments, "it makes better sense for states and cellular phone companies to institute educational programs rather than prohibit their use in cars."<sup>219</sup> Teaching people how to drive safely and responsibly while using a cellular telephone should be a priority to the cellular industry and the government. Focusing on the behavior of the drivers rather than on cellular phone use will serve as a deterrent to the harmful effects of using cellular phones while driving. A combination of efforts from legislators and safety experts, as well as driver education, should all be part of consumer education about cellular phone use. Also, statewide educational programs and law enforcement participation in collecting data on all distracting behaviors is necessary.

The media has made an effort to address the issue and educate the public, but much more education is needed. Campaigns like the ones run by Shell and the CTIA have successfully brought up issues dealing with driver distraction and cellular phone safety. Consumers are more aware of the problem, and are becoming educated about the proper use of cellular phones. Awareness campaigns and efforts should be a key instrument for advocates of cellular phone safety. Consumer awareness and knowledge is an essential element to combat the problem of cellular phone safety. Consumers need to know about the safety risks, and ways to deter them in order to continue to benefit from the use of cellular phones.

Both the state and federal government have responded to the worries of safety advocates. Cellular phone regulation has become a hot topic for lawmakers. Through research, the cell phone industry will be able to make better products that are safer for the market. Also this research will provide safety experts with the problem areas in order to effectively produce safer alternatives to hand-held cellular phones. In addition, research will give lawmakers more insight into imposing minimal, if any, regulation of such a useful product. The partnership between the government agencies and the cellular phone industry is a step in the right direction. This partnership will lead to insight, and provide consumers with a solid foundation to decide for themselves about cellular phone safety.

Safety concerns are being addressed by the industry and other agencies. The implementation of safety devices such as hands-free and voice activated dialing are a by-product of this concern for safety. As technology in the cellular phone market improves, so will the safety of the product. Safety programs, like the ones offering

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<sup>219</sup>*Cellular Phones; How Do We Regulate Common Sense?*, DALLAS MORNING NEWS, Sept. 7, 1999, at 10A.

victims of domestic violence a cell phone to use in times of emergency should continue to be developed and implemented. More safety technology and programs are needed in order to truly address concerns of safety advocates. However, this goal cannot be achieved by over-regulation; this goal can be achieved with more research and education.

Critics suggest that over-regulation of cellular phones is the best way to balance utility and efficacy of cellular phones with the safety risks that they pose. Over-regulation does not seem to be the answer in this case. As studies have shown, the risk of driving and dialing are minimal compared to other common activities done in the car such as tuning the radio. There are a lot more distracting behaviors that can contribute to accidents and safety risks. Legislation is already in place in order to combat the safety risks associated with bad drivers. Rather than focusing on cellular phones as the problem, more efforts should be made in trying to continue to enforce existing laws. In an editorial a writer quips about a letter sent to the *Dallas Morning News* condemning the state of Texas for proposing cellular phone regulation, "Texas should prohibit motorists from driving with their spouses if the state is really concerned about potential distractions."<sup>220</sup> This is not to make light of the situation, but it seems as if legislatures are reaching too far; there are many answers besides over-regulation of cellular phones. There are many other potential distractions while driving that are not regulated. It would be impractical and costly to regulate each activity that potentially interferes with driver safety. The current laws in every state have been written broadly enough to encompass activity that is potentially harmful to drivers. The regulation currently in place to deal with reckless driving is sufficient to combat the problem of use of cellular phones while driving. Thus, proper enforcement of existing laws regarding reckless driving and not regulation of cellular phones would deter any conduct that interferes with the health and safety of today's drivers.

In order to effectively combat the problems associated with cell phones, state and federal legislatures should be willing to balance the safety concerns against the benefits of using cellular phones. In order to accomplish this formidable task, other solutions, such as education, research, safety technology and programs, and enforcement of existing laws should be considered. As one commentator wrote, "nearly all laws must strike a balance between the benefits of a particular activity and the injurious effects that particular law seeks to mitigate."<sup>221</sup> In this situation, care must be taken by legislatures to avoid potentially over-regulating a device that has saved, and will continue to save many lives in the future.

LANA MOBYDEEN<sup>222</sup>

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<sup>220</sup>*Id.*

<sup>221</sup>Hentzen, *supra* note 111, at 866.

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