MICROFILM DIVIDER

OMB/RECORDS MANAGEMENT DIVISION
SFN 2053 (2/85) 5M

ROLL NUMBER

DESCRIPTION

1196

2007 HOUSE TRANSPORTATION

HB 1196

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1196

House Transportation Committee

☐ Check here for Conference Committee

Hearing Date: 01-26-2007

Recorder Job Number: 2080

Committee Clerk Signature Lisa M Thomas

Minutes:

Chairman Weisz opened the hearing on HB 1196. All representatives were present.

HB 1196 relates to the definition of a moving violation.

Rep. Klemin introduced the bill. See written testimony.

Rep. Ruby: Initially, the original bill that dealt with young drivers I was concerned because the only major accident in the last ten years was with someone who must have close to ninety and they had an inability to see and notice. There are so many other factors that deals with accidents. There all sort of things that distract people when driving. It seems like it's a lot easier to introduce a bill that deals with sixteen year olds because they don't vote as it would be to require someone eighty or ninety.

Rep. Klemin: If your question is, is it less difficult to pass a bill that deals with people who don't vote, than it is for people who do vote, I don't know that I could answer that. I did introduce this bill because I thought teen drivers were more at risk than other people. However, I have seen the rational from a lot of the criticism and I think this committee should consider expanding it to everyone.

Rep. Kelsch: I received an email from a mother that basically said, "Since when did the 141 people decide that they were going to take over my parental responsibilities?" She went on to

sate that it's the legislatures responsibility to tell her child that how to live. She took it quite personally that we are challenging her parenting.

Rep. Klemin: I did receive that email and I believe that the criticism is that it wouldn't apply to everyone. If we are going to do it only for teens we should include it as part of the graduated license. I think by applying it to everyone in this amendment, that takes away the criticism.

Rep. Owens: When this bill first came up, it addressed, basically younger than eighteen. I couldn't decide where I stood on that. Then I started getting complaints about the points. I did always believe that you should restrict hands and handheld devises in the urban areas. The minute people get in the car, they turn the phone on. As I read this amendment, I guess, I can see where this may be interpreted that even the hands-free, would not be allowed.

Rep. Klemin: There are a number of other states with restrictions relating to the use of hand held cell phones and the experience that they found in other state, enforcement was not an issue. How do you tell when they are on a hands free cell phone.

Rep. Owens: My point is, they are all hand held cell phones, or most of them are. So even if they are using a head set, they are using a hand held phone.

Dean Conrad of Bismarck, spoke in support of the bill without amendments.

Conrad: I want to express my support, not with the amendment, partly because I believe that a similar bill with the amendment was defeated two years ago. I think you aught to concentrate on the young people. Teenagers were distracted by hormones, maturing, schools, jobs, relationships, etc, you can't get away from the fact that there are enough distractions already for our young people who think they are invincible.

Tom Kelsch, Alltel, spoke in opposition to the bill. See written testimony.

Tom Baulzer, ND Motor Carriers Association, spoke in opposition to the bill if amended. If not amended, they have no position on the bill.

There was no further testimony for the bill. The hearing was closed. No action was taken at this time.

70318.0102
Title.

Prepared by the Legislative Council staff for
Representative Klemin
January 25, 2007

PROPOSED AMENDMENTS TO HOUSE BILL NO. 1196

Page 1, line 1, remove "subsection 3 to section 39-06-01.1 and"

Page 1, line 2, after "39-06.1-10" insert "and section 39-08-23"

Page 1, line 3, remove "by minors"

Page 1, remove lines 6 through 9

Page 1, line 14, remove "subsection 3 of section 39-06-01.1; section"

Page 1, line 15, after the first semicolon insert "39-08-23;"

Page 1, line 24, remove "subsection 3 of", replace "39-06-01.1" with "39-08-23", and replace "4" with "2"

Page 1, after line 24, insert:

"**SECTION 3.** Section 39-08-23 of the North Dakota Century Code is created and enacted as follows:

Cell phone use prohibited. An individual operating a motor vehicle that is in motion may not operate a hand-held wireless or cellular telephone or other hand-held communications device."

Renumber accordingly

Prepared by the Legislative Council staff for
Representative Vigesaa
February 1, 2007

House Amendments to HB 1196 (70318.0103) - Transportation Committee 02/01/2007

Page 1, line 9, after the underscored period insert "The minor may assert as an affirmative defense that the violation was made for the sole purpose of obtaining emergency assistance to prevent a crime about to be committed or in a reasonable belief that an individual's life or safety was in danger."

Page 1, line 24, replace "4" with "2"

Renumber accordingly

Date: 2-1-07
Roll Call Vote #: 1

2007 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1196

House **Transportation** Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number

Action Taken Adopt Amendments Voice Vote

Motion Made By Vigesaa Seconded By Owens

Representatives	Yes	No	Representatives	Yes	No
Chairman Weisz			Rep. Delmore		
Vice Chairman Ruby			Rep. Gruchalla		
Rep. Dosch			Rep. Myxter		
Rep. Kelsch			Rep. Schmidt		
Rep. Owens			Rep. Thorpe		
Rep. Price					
Rep. Sukut					
Rep. Vigesaa					

Total Yes No

Absent Motion Carried

Floor Assignment

If the vote is on an amendment, briefly indicate intent:

Date: 2-1-07
Roll Call Vote #: 2

2007 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1196

House **Transportation** Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number

Action Taken Do Not Pass As Amended ?

Motion Made By Thorpe Seconded By Myxter

Representatives	Yes	No	Representatives	Yes	No
Chairman Weisz	✓		Rep. Delmore	✓	
Vice Chairman Ruby	✓		Rep. Gruchalla		✓
Rep. Dosch	A		Rep. Myxter	✓	
Rep. Kelsch	✓		Rep. Schmidt	✓	
Rep. Owens	✓		Rep. Thorpe	✓	
Rep. Price	✓				
Rep. Sukut	✓				
Rep. Vigesaa		✓			

Total Yes 10 No 2

Absent 1

Floor Assignment Ruby

If the vote is on an amendment, briefly indicate intent:

REPORT OF STANDING COMMITTEE

HB 1196: Transportation Committee (Rep. Weisz, Chairman) recommends **AMENDMENTS AS FOLLOWS** and when so amended, recommends **DO NOT PASS** (10 YEAS, 2 NAYS, 1 ABSENT AND NOT VOTING). HB 1196 was placed on the Sixth order on the calendar.

Page 1, line 9, after the underscored period insert "The minor may assert as an affirmative defense that the violation was made for the sole purpose of obtaining emergency assistance to prevent a crime about to be committed or in a reasonable belief that an individual's life or safety was in danger."

Page 1, line 24, replace "4" with "2"

Renumber accordingly

2007 TESTIMONY

HB 1196

Rep. Klemin
Intro

32/11
Details, 6B
WINDY
FRIDAY,
JANUARY 26, 2007

The Bismarck Tribune

www.bismarcktribune.com

Study: Distractions fuel crashes for teen drivers

By IAN DENNIS
Associated Press Writer

BLOOMINGTON, Ill. — More teenagers are heeding warnings about drinking and driving, but they routinely face behind-the-wheel distractions from cell phones to passengers that contribute to thousands of fatal crashes every year, according to a study released Thursday.

Teens often take the wheel amid commotion, angst or fatigue that would be challenging even for older drivers, said Dr. Flaura Winston, chief investigator for the study.

"We need to go beyond the message of drinking and driving and also talk about the message of distractions," said Winston, a pediatrician with the Children's Hospital of Philadelphia.

The study by the children's hospital and State Farm Insurance Co., the nation's largest auto insurer, asked high school students what happens when their peers drive that makes them unsafe. The 2006 survey of more than 5,600 students was a scientific sampling of the 10.6 million students in public high schools across the U.S.

Ninety percent of teens said they rarely or never drive after drinking or using drugs, reflecting a trend that has seen teen traffic deaths involving alcohol drop by about 35 percent from 1990 to 2005, according to National Highway Traffic Safety Administration data.

But teens reported a host of other in-car distractions that researchers say help make traffic accidents the No. 1 killer of U.S. teens, with a fatality rate four times higher than drivers aged 25-69, based on miles driven. About 5,600 teens died in traffic accidents in 2005, and about 7,500 were driving cars involved in fatal accidents.

Researchers found that one teenage passenger with a teen driver doubles the risk of a fatal crash, while the risk is five times higher when two or more teens ride along.

Nearly 90 percent of teens reported seeing peers drive while talking on cell phones and more than half spotted drivers using hand-held games, listening devices or sending text messages. About 75 percent said they see teens driving while tired or struggling with powerful emotions, such as worries about grades or relationships. More than nine of 10 teens also reported seeing teen drivers speeding and half said they sometimes drive at least 10 mph over posted speed limits themselves.

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HOUSE OF REPRESENTATIVES

NORTH DAKOTA LEGISLATIVE ASSEMBLY

STATE CAPITOL
600 EAST BOULEVARD
BISMARCK, ND 58505-0360

COMMITTEES:
Judiciary, Vice Chairman
Political Subdivisions
Constitutional Revision

HOUSE BILL NO. 1196

TESTIMONY OF REP. LAWRENCE R. KLEMIN

HOUSE TRANSPORTATION COMMITTEE

JANUARY 26, 2007

Younger Drivers

According to the National Highway Traffic Safety Administration (NHTSA) and the Insurance Institute for Highway Safety (IIHS), teen drivers have the highest crash risk of any age group. The crash rate per mile driven for 16-year-old drivers is almost 10 times the rate for drivers aged 30-59.

Teen drivers have the most limited driving experience, and this inexperience coupled with immaturity often results in risk-taking behind the wheel.

Risk taking behaviors often include speeding, alcohol use and low safety belt use - all of which contribute to an increased death rate.

An effective way to reduce the death rate is to enact graduated licensing laws, under which driving privileges are phased in. Beginner experiences are more controlled, thereby reducing the risk.

Traffic safety experts agree that graduated licensing programs that are well-designed:

- restrict night driving
- limit teen passengers
- set zero alcohol tolerance
- require a specified amount of supervised practice during the initial phase

According to results published by NHTSA in June 2006, significant reductions in deaths were associated with programs that included age requirements, a waiting period of at least three months before the intermediate stage, a restriction on nighttime driving, 30 or more hours of supervised driving and a restriction on carrying passengers or the number and age of passengers carried.

GHSA tracks information on **Graduated Licensing Laws** in each state.

In addition to laws, safety experts also agree that parents play a role in helping teens become good drivers. Efforts include not relying solely on driver education classes to teach good driving habits, restricting night driving, restricting numbers of passengers, supervising practice driving, always requiring use of safety belts and choosing vehicles for safety, not image.

To help supplement driver education instruction, GHSA and the Ford Motor Company developed *Driving Skills for Life*, an innovative skills development program for new teen drivers that addresses the factors most involved in teen crashes. The program presents material in a format that is both acceptable and relevant to teenagers. Read more about the ***Driving Skills for Life*** program.

(1)

NTSB NEWS

NATIONAL TRANSPORTATION SAFETY BOARD · WASHINGTON D.C. 20594

FOR IMMEDIATE RELEASE: June 3, 2003 SB-03-20

NTSB SAYS NOVICE DRIVERS SHOULD BE PROHIBITED FROM USING CELL PHONES WHILE AT THE WHEEL

WASHINGTON, D.C. - The National Transportation Safety Board said today that the nation's driver education courses should include warnings about the dangers of distracted driving, and novice drivers should be prohibited from using cell phones while at the wheel.

These were two of the recommendations contained in the Board's final report on its investigation into a highway crash last year that took the lives of 5 persons, including a driver who was using a wireless phone at the moment she lost control of her vehicle.

On February 1, 2002, at about 8:00 p.m., a Ford Explorer was traveling northbound on Interstate 95/495 (the Capital Beltway) near Largo, Maryland at an estimated speed of 70 to 75 miles an hour when it veered off the left side of the roadway, crossed over the median, climbed a guardrail, flipped over and landed on top of a southbound 2001 Ford Windstar minivan. All 5 persons in the two vehicles were killed.

The Board found that the probable cause of the crash was the Explorer driver's failure to maintain control of her vehicle in windy conditions due to a combination of inexperience, unfamiliarity with the vehicle (she had just purchased it that evening), speed and distraction caused by use of a handheld wireless telephone.

The Safety Board has long been concerned with the issues of distracted driving and novice drivers. The Board recommended to all States - except New Jersey, which already has a similar proscription - to prohibit holders of learner's permits and intermediate licenses from using interactive wireless communication devices while driving.

"Learning how to drive and getting comfortable in traffic requires all the concentration a novice driver can muster," NTSB Chairman Ellen Engleman said. "Adding a distracting element like a cell phone is placing too many demands on a young driver's skills."

The Board also urged the National Highway Traffic Safety Administration to develop a media campaign stressing the dangers of distracted driving, and that it work with the American Driver and Traffic Safety Education Association to develop driver training curricula that emphasize the risks of distracted driving. The Board cited a study showing that drivers engaged in phone conversations were unaware of traffic movements around them.

In addition, the Board said that NHTSA should determine the magnitude and impact of driver-controlled, in- vehicle distractions, including the use of interactive wireless communication devices, on highway safety and report its findings to the United States Congress and the States. The NTSB noted that the extent of wireless phone use in car crashes is unknown because most jurisdictions don't have driver distraction codes on their accident report forms. The Board recommended that those 34 States change their forms to add driver distraction codes and include wireless phone use in those codes.

Relative to another issue raised during this investigation, the Board recommended that NHTSA expand its current evaluation of electronic stability control (ESC) systems and determine their potential for assisting drivers in maintaining control of passenger cars, light trucks, sport utility vehicles and vans. Should this evaluation show benefits

in ESCs, then NHTSA should develop a schedule to mandate them for these vehicles. The Board noted in today's report that such a device might have helped the driver of the Explorer in the Largo crash maintain control of her vehicle.

The Largo crash once again demonstrated the benefits of seatbelt use. The driver of the Explorer, who was not wearing [redacted]eatbelt, was ejected and killed (because of the severity of the impact, seat belt use was not an issue for the four [redacted]ons in the Windstar). However, during the accident sequence a Jeep Grand Cherokee ran into the wreckage of the minivan; the adult driver and the two children in the back seat were all restrained and escaped with minor injuries.

"The NTSB will continue to be aggressive in pursuit of safety," Chairman Engleman stated. "It is not enough to issue these recommendations, we want to make sure they are implemented."

A summary of today's report, including the findings, probable cause and safety recommendations, can be found on the Publications page of the Board's web site, http://www.ntsb.gov. The complete report will be available there in about six weeks.

NTSB Press Contact: Ted Lopatkiewicz (202) 314-6100

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[redacted]

[redacted]

(3)

INSURANCE INSTITUTE
FOR HIGHWAY SAFETY

NEWS RELEASE

July 12, 2005

1ST EVIDENCE OF EFFECTS OF CELL PHONE USE ON INJURY CRASHES: CRASH RISK IS FOUR TIMES HIGHER WHEN DRIVER IS USING A HAND-HELD CELL PHONE

ARLINGTON, VA — Common sense as well as experience tell us that handling and dialing cell phones while driving compromise safety, and evidence is accumulating that phone conversations also increase crash risk. New Institute research quantifies the added risk — drivers using phones are four times as likely to get into crashes serious enough to injure themselves. The increased risk was estimated by comparing phone use within 10 minutes before an actual crash occurred with use by the same driver during the prior week. Subjects were drivers treated in hospital emergency rooms for injuries suffered in crashes from April 2002 to July 2004.

The study, "Role of cellular phones in motor vehicle crashes resulting in hospital attendance" by S. McEvoy et al. is published in the *British Medical Journal*, available at bmj.com.

"The main finding of a fourfold increase in injury crash risk was consistent across groups of drivers," says Anne McCartt, Institute vice president for research and an author of the study. "Male and female drivers experienced about the same increase in risk from using a phone. So did drivers older and younger than 30 and drivers using hand-held and hands-free phones."

Weather wasn't a factor in the crashes, almost 75 percent of which occurred in clear conditions. Eighty-nine percent of the crashes involved other vehicles. More than half of the injured drivers reported that their crashes occurred within 10 minutes of the start of the trip.

— MORE —

1005 N. GLEBE RD. ARLINGTON, VA 22201 TEL. 703/247-1500 FAX 703/247-1588 www.iihs.org

The study was conducted in the Western Australian city of Perth. The Institute first tried to conduct this research in the United States, but U.S. phone companies were unwilling to make customers' billing records available, even with permission from the drivers. Phone records could be obtained in Australia, and the researchers got a high rate of cooperation among drivers who had been in crashes.

Another reason for conducting the study in Australia was to estimate crash risk in a jurisdiction where hand-held phone use is banned. It has been illegal while driving in Western Australia since July 2001. Still one-third of the drivers said their calls had been placed on hand-held phones.

Hands-free versus hand-held: The results suggest that banning hand-held phone use won't necessarily enhance safety if drivers simply switch to hands-free phones. Injury crash risk didn't differ from one type of reported phone use to the other.

"This isn't intuitive. You'd think using a hands-free phone would be less distracting, so it wouldn't increase crash risk as much as using a hand-held phone. But we found that either phone type increased the risk," McCartt says. "This could be because the so-called hands-free phones that are in common use today aren't really hands-free. We didn't have sufficient data to compare the different types of hands-free phones, such as those that are fully voice activated."

Evidence of risk is mounting: The findings of the Institute study, based on the experience of about 500 drivers, are consistent with 1997 research that showed phone use was associated with a fourfold increase in the risk of a property damage crash. This Canadian study also used cell phone billing records to establish the increase in risk. The Institute's new study is the second to use phone records and the first to estimate whether and how much phone use increases the risk of an injury crash.

— MORE —

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Taken together, the two studies confirm that the distractions associated with phone use contribute significantly to crashes. Other studies have been published about cell phone use while driving, but most have been small-scale and have involved simulated or instrumented driving, not the actual experience of drivers on the road. When researchers have tried to assess the effects of phone use on real-world crashes, they usually have relied on police reports for information. But such reports aren't reliable because, without witnesses, police cannot determine whether a crash-involved driver was using a phone.

End of 3-page news release on cell phone risk while driving

For more information go to www.iihs.org

INSURANCE INSTITUTE FOR HIGHWAY SAFETY | HIGHWAY LOSS DATA INSTITUTE

CELL PHONE LAWS
as of September 2006

- California, Connecticut, New York, New Jersey and the District of Columbia each have enacted a jurisdiction-wide ban on driving while talking on a handheld cellular phone.
- Six states (Illinois, Massachusetts, Michigan, New Mexico, Ohio, and Pennsylvania) allow localities to ban cell phone use. Localities that have enacted restrictions on cell phone use include: Chicago, IL; Brookline, MA; Detroit, MI; Santa Fe, NM; Brooklyn, North Olmstead and Walton Hills, OH; and Conshohocken, Lebanon and West Conshohocken, PA.
- Eight states (Florida, Kentucky, Louisiana, Mississippi, Nevada, Oklahoma, Oregon, and Utah) prohibit localities from banning cell phone use.
- Eleven states (Arizona, Arkansas, California, Connecticut, Delaware, Illinois, Massachusetts, New Jersey, Rhode Island, Tennessee, and Texas) and DC prohibit the use of all cellular phones while driving a school bus.
- Thirteen states (Colorado, Connecticut, Delaware, Illinois, Maine, Maryland, Minnesota, New Jersey, North Carolina, Rhode Island, Tennessee, Texas, and West Virginia) and DC restrict the use of cellular phones by teens in the graduated licensing system.
- All but four states with cell phone bans have primary enforcement laws. New Jersey's ban is a secondary enforcement law for everyone except school bus drivers and learner's permit and intermediate license holders. Colorado, Maryland, and West Virginia have secondary enforcement laws. Secondary enforcement laws may only be enforced when a driver has been stopped for another infraction.

State	Cell Phone Restrictions	
	Hand Held Ban	All Cell Phone Ban
Alabama	no	no
Alaska	no	no
Arizona	no	School bus drivers
Arkansas	no	School bus drivers
California	yes (eff. 7/1/08)	School and transit bus drivers
Colorado	no	Learner's permit holders
Connecticut	yes (eff. 10/1/05)	Learner's permit holders, drivers younger than 18, and school bus drivers (eff. 10/1/05)
Delaware	no	School bus drivers and learner's permit and intermediate license holders
District of Columbia	yes	School bus drivers and learner's permit holders
Florida	no	no

State	Cell Phone Restrictions	
	Hand Held Ban	All Cell Phone Ban
Georgia	no	no
Hawaii	no	no
Idaho	no	no
Illinois	By jurisdiction	Learner's permit holders, drivers younger than 18, and school bus drivers
Indiana	no	no
Iowa	no	no

(7)

Kansas	no	no
Kentucky	no	no
Louisiana	no	no
Maine	no	Learner's permit and intermediate license holders

State	Cell Phone Restrictions	
	Hand Held Ban	All Cell Phone Ban
Maryland	no	Learner's permit and intermediate license holders
Massachusetts	By jurisdiction	School bus drivers
Michigan	By jurisdiction	no
Minnesota	no	Learner's permit holders and provisional license holders during the first 12 months after licensing (eff. 1/1/2006)
Mississippi	no	no
Missouri	no	no
Montana	no	no
Nebraska	no	no
Nevada	no	no
New Hampshire	no	no

State	Cell Phone Restrictions	
	Hand Held Ban	All Cell Phone Ban
New Jersey	yes	School bus drivers and learner's permit and intermediate license holders
New Mexico	By jurisdiction	no
New York	yes	no
North Carolina	no	Drivers younger than 18 (eff. 12/1/06)
North Dakota	no	no
Ohio	By jurisdiction	no
Oklahoma	no	no
Oregon	no	no
Pennsylvania	By jurisdiction	no
Rhode Island	no	School bus drivers and drivers younger than 18

State	Cell Phone Restrictions	
	Hand Held Ban	All Cell Phone Ban
South Carolina	no	no
South Dakota	no	no
Tennessee	no	School bus drivers and learner's permit and intermediate license holders
Texas	no	Bus drivers when a passenger 17 and younger is present; intermediate license holders for first six months
Utah	no	no
Vermont	no	no
Virginia	no	no

8

Washington	no	no
West Virginia	no	Learner's permit and intermediate license holders (eff. 6/9/06)
Wisconsin	no	no
Wyoming	no	no

National Conference of State Legislatures

LEGISBRIEF

BRIEFING PAPERS ON THE IMPORTANT ISSUES OF THE DAY

JUNE/JULY 2005

VOL. 13, NO. 30

Cell Phones and Novice Drivers

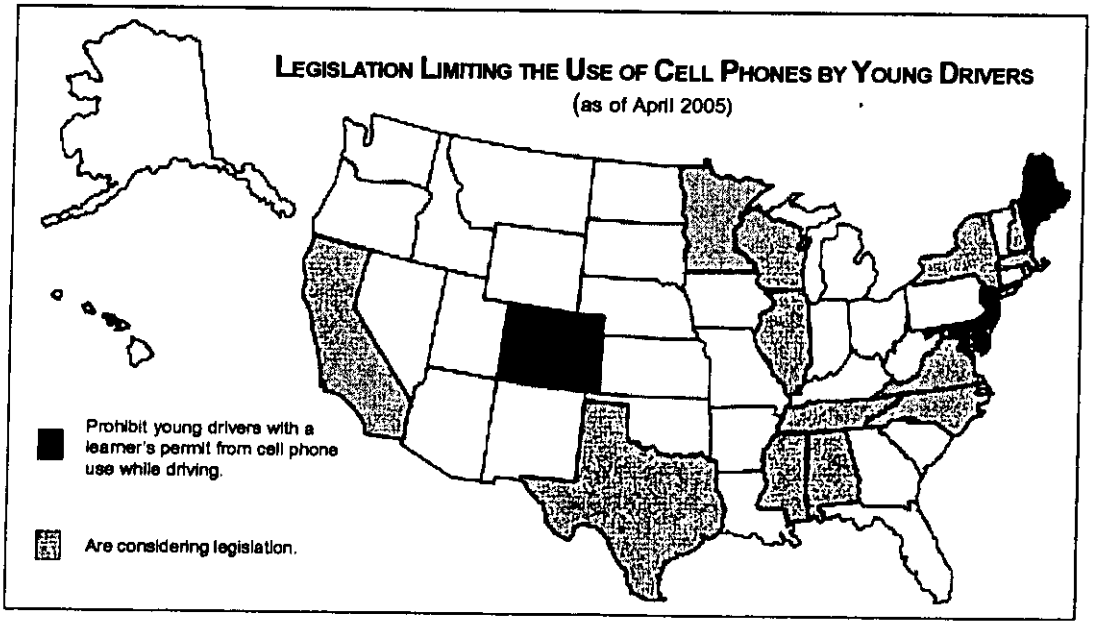
By Matt Sundeen

Cell phone use while driving is a hot issue.

The proliferation of cell phones and other wireless communication and information technologies has drawn new attention to an old traffic safety problem—driver distraction. The National Highway Traffic Safety Administration (NHTSA) estimates that driver inattention is a contributing cause in some 20 percent to 30 percent of all motor vehicle crashes each year—or 1.2 million accidents. There is little conclusive evidence to link cell phone use with motor vehicle crashes. But there are factors that make cell phones and driving a hot issue: the relative newness of cell phones and other wireless technologies, their prevalence and high visibility in vehicles, and the capacity of such technologies to more actively divert a driver's attention than more mundane activities such as eating or drinking.

There is growing agreement in many states that cell phone use among young novice drivers should be restricted.

Among traffic safety experts and state lawmakers, there is little consensus on whether all drivers should be prohibited from using a phone while operating a vehicle. There is growing agreement in many states, however, that young novice drivers' use of such devices should be restricted. More than 180 million people now subscribe to wireless services in the United States and some studies have estimated that as many as 85 percent of those subscribers have used their phones while driving. Although the exact number of teenage drivers using cell phones is unknown, a recent observational survey by NHTSA found that the number of young



drivers using cell phones at any given moment appeared to be more than all other age groups combined. The survey also found that the number of drivers who appeared to be ages 16 to 24 and were observed holding cell phones more than doubled the findings made in a similar NHTSA survey conducted in 2000.

Immaturity and lack of driving experience make younger drivers a hazard on the road.

Immaturity and lack of driving experience make younger drivers a hazard on the road. Motor vehicle crashes are the leading cause of death among teenagers, killing more young people than the next three leading causes of death combined. According to NHTSA, in 2003, 7,884 people aged 15 to 20 died in motor vehicle crashes. Cell phones in the car give novice drivers one more distraction that they may not be able to manage as easily as more experienced drivers. Lack of experience makes younger drivers less able to recognize and respond to hazards. So they can get in trouble trying to handle unusual circumstances, even small emergencies. Teenage drivers are also more likely to participate in risky behaviors, such as speeding and tailgating, allowing them a smaller margin for error.

State Action

At least 17 states have considered bills this year to restrict the use of cell phones by novice drivers.

States are taking a leading role in limiting cell phone use by young drivers. Colorado, Delaware, Maine, Maryland and New Jersey prohibit drivers under 21, who have only a learner's or instructional permit, from using any type of cell phone while driving. The District of Columbia prohibits all drivers with a learner's permit from using any mobile telephone or other electronic device. In 2004, 16 states considered measures to restrict the use of cell phones by novice drivers. This year, legislatures in at least 17 states have considered bills as of April 2005. Most measures prohibit use of all cell phones by drivers with instructional permits or intermediate licenses. The proposed ages for restrictions in these bills range from 18 years old and younger to 21 years old and younger. In at least six states—Alabama, Illinois, New York, North Carolina, Rhode Island and Texas—legislators are considering bills that would prohibit use of cell phones by all teenage drivers, including those who hold full licenses.

Federal Action

No federal law or regulation governs novice driver use of cell phones.

No federal law or regulation governs novice driver use of cell phones. In 2003, however, the National Transportation Safety Board (NTSB) issued a report that recommended state restrictions on younger driver cell phone use. Written as part of an investigation into a fatal crash that killed five people on the Capital Beltway in Maryland in 2002, the NTSB report found that a younger driver's distraction caused by a handheld phone was probably a contributing factor. The NTSB recommended that states prohibit holders of learner's permits and intermediate licenses from using interactive wireless communication devices while driving.

Selected References

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National Transportation Safety Board. *Ford Explorer Sport Collision with Ford Windstar Minivan and Jeep Grand Cherokee on Interstate 95/495 Near Largo, Maryland, February 1, 2002.* Washington, D.C.: Highway Accident Report NTSB/HAR-03/02, PB2003-916202 (2003).

Savage, Melissa A.; Matt Sundeen and Jeanne Mejeur. *Traffic Safety and Public Health: State Legislative Action, 2004,* Transportation Series, no. 20. Denver: National Conference of State Legislatures, December 2004.

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Accident Analysis and Prevention 38 (2006) 415–421

ACCIDENT ANALYSIS & PREVENTION

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Engrossed in conversation: The impact of cell phones on simulated driving performance

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Received 18 August 2005; received in revised form 5 October 2005; accepted 25 October 2005

Abstract

The current study examined the effects of cognitively distracting tasks on various measures of driving performance. Thirty-six college students with a median of 6 years of driving experience completed a driving history questionnaire and four simulated driving scenarios. The distraction tasks consisted of responding to a signal detection task and engaging in a simulated cell phone conversation. Driving performance was measured in terms of four categories of behavior: traffic violations (e.g., speeding, running stop signs), driving maintenance (e.g., standard deviation of lane position), attention lapses (e.g., stops at green lights, failure to visually scan for intersection traffic), and response time (e.g., time to step on brake in response to a pop-up event). Performance was significantly impacted in all four categories when drivers were concurrently talking on a hands-free phone. Performance on the signal detection task was poor and not significantly impacted by the phone task, suggesting that considerably less attention was paid to detecting these peripheral signals. However, the signal detection task did interact with the phone task on measures of average speed, speed variability, attention lapses, and reaction time. The findings lend further empirical support of the dangers of drivers being distracted by cell phone conversations.

Keywords: Attention; Distracted driving; Reaction time; Traffic violations

1. Introduction

Technological advancements have resulted in the incorporation of electronic devices in automobiles that compete for the attention of drivers. Cellular phones have been the most popular addition, with more than 55% of the total U.S. population currently owning one (CTIA, 2004; U.S. Bureau of the Census, 2004). Research has shown that those who talk on a phone while driving are four times more likely to have an accident when compared to those who do not talk on a phone (Redelmeier and Tibshirani, 1997). In fact, an estimated 330,000 driving related injuries and 2600 fatalities per year could be attributed to the use of cell phones (Cohen and Graham, 2003). In addition to phones, equipment such as computers and dashboard-navigation systems, have been added to the already attention-demanding task of driving. Even a task as common as changing the radio station requires the driver to divert attention from the road and may lead to an accident. The purpose of the current study was to identify specific driving subtasks that suffer while concurrently performing a secondary task.

Driving alone, without engaging in distracting activities, requires the successful time-sharing of concurrently performed tasks. There are two general groups of tasks involved with driving: immediate and peripheral. The immediate tasks, which are crucial to driving, include staying on the roadway, maintaining forward motion, continuing on the intended course, and identifying and reacting to changing events that can impact the driver (Seppelt and Wickens, 2003). Peripheral tasks are somewhat less important to the overall success of driving, and include monitoring speed, viewing both inside the car and the surrounding environment, and processing static signs or objects in the periphery.

Both immediate and peripheral driving tasks suffer when individuals engage in phone conversations while driving. In terms of the immediate tasks, results have shown that drivers make more frequent and larger steering corrections (Reed and Green, 1999) and have more intense, though delayed braking patterns (Hancock et al., 2003). Drivers engaged in a phone conversation have also been found to miss (Strayer and Johnston, 2001) or react slower to critical signals (Consiglio et al., 2003) and changing stop lights (Hancock et al., 2003). In terms of

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peripheral tasks, drivers have been found to compensate for the attentional overload by reducing their driving speed (e.g., Alm and Nilsson, 1994; Brown et al., 1969; Haigney et al., 2000; Reed and Green, 1999) as well as reducing both the frequency (Harbluk et al., 2002) and duration (McCarley et al., 2001) of glances in the driving scene. Drivers engaged in phone conversations have also been found to leave dangerously small gaps between themselves and other drivers (Brown et al., 1969; Haigney et al., 2000).

Research has demonstrated that the adverse effects of driving while talking are most likely not related to the motor control issues of manipulating a hand-held phone (Consiglio et al., 2003; Redelmeier and Tibshirani, 1997; Strayer and Johnston, 2001) or driving experience (Redelmeier and Tibshirani, 1997). Rather, it is believed that the effects are a result of competition for limited cognitive resources. In one of the initial studies on this topic, using a radiophone minimally interfered with automated driving tasks, but severely impacted the drivers' decision-making processes (Brown et al., 1969). Consistent with Wickens et al. (1998), it was concluded that the combination of phone usage and decision making in demanding driving situations (controlled processes) creates a potentially hazardous competition for a driver's attention.

The current study investigates the impact of engaging in a cellular phone conversation and/or divided attention task (i.e., signal detection) on various aspects of driving performance. To focus on the cognitively distracting nature of the cell phone, rather than the physical limitations caused by dialing or holding a cell phone while driving, the current study simulates a hands-free cell phone interaction.

2. Methods

2.1. Participants

Thirty-six undergraduate students at the University of West Florida served as participants. The investigator recruited volunteers from psychology classes with the permission of faculty members. Participants were offered extra credit for their participation.

Participants ranged in age from 20 to 53 years with a median of 22.50 years. All participants possessed a valid driver's license. Participants reported having a license for a median of 6 years and driving a median of 724 km (450 miles) in a typical month.

2.2. Instruments and materials

2.2.1. Driving performance

Driving performance was measured using STISIM Drive software by Systems Technology Inc. (STI) from Hawthoren, CA. STISIM Drive is an interactive program that records numerous performance measures. The program allows for investigator control over development of the driving scenario, ensuring that all participants encountered the same events and conditions while driving.

The simulated driving program operated on a standard desktop computer with a Pentium IV processor and Nividia GeForce FX 5200 graphic card. Participants were seated in a stationary chair at a large desk. A 61 cm (24 in.) Samsung LCD monitor was located on top of the desk, and a large black curtain barrier was placed behind the desk to minimize environmental distractions. A Logitech Wingman steering wheel was mounted to the front of the desk, and gas and brake pedals were placed on the floor. The steering wheel had four buttons on the front and two buttons on the back. Two of the front buttons, used for viewing the right and left side of the roadway, were located on the right and left side of the top of the steering wheel face. Two of the buttons, used for responding to the signal task, were located on the right and left side of the face of the steering wheel. Finally, two buttons, used for turn signal indicators, were located on the back of the right and left side of the wheel. A Logitech THX sound system, that included a subwoofer and four speakers, was used in the present study. The sound from the front two speakers was projected directly into a set of headphones and the sound for the back two speakers was projected at a low decibel level to the experimental lab. Participants wore the headphones, which were equipped with a speaking piece, during all of the driving scenarios.

2.3. Distraction conditions

2.3.1. Signal detection

The provision of a secondary signal detection task (included as part of the STISIM Drive software) was intended to increase the demands of the driving task. The divided attention symbol (i.e., right or left red arrows) appeared in the lower right or left side of the computer monitor. The changing arrows replaced a diamond of the same color and size. Ten signals were included in each of the two divided attention signal scenarios. The signals began to change after the participants drove approximately 914 m (3000 ft). After that, the signals appeared at seemingly random intervals distributed throughout the scenario. The participants responded to the changing signals by pressing the buttons on the side of the steering wheel that corresponded with the location of the signal. The driving scenario continued regardless of the participants' responses.

2.3.2. Telephone task

Participants received a telephone call in two conditions of the study and engaged in a conversation with a pre-recorded confederate. Participants were fitted with a headset equipped with a speaking piece. The conversations were programmed into the STISIM Drive scenario as individual wav files and began after participants drove 945 m (3100 ft). These wav files presented various questions and statements and were synchronized with the simulator to be played when participants reached particular locations within the scenarios.

The conversations in the two talking conditions were similar in terms of cognitive demand. Both conversations were primarily visuo-spatial in nature requiring the participants to engage in mental imagery (e.g., "How do I get to the mall from your house?" or "I'm looking for a new home with lots of sunlight, how many windows do you have in your home?"). This type of conversation was used because of its greater likelihood of

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competing with the cognitive resources used for driving. However, declarative questions were also included to enhance the conversational flow (e.g., "What is your favorite restaurant?").

2.4. Measures

A short questionnaire was developed to gather basic information on the participants' demographics, cellular phone usage, driving history, and driving behaviors. Participants' driving performance was assessed in four categories: violations, driving maintenance, attention lapses, and reaction time.

Types of violations recorded by the simulator included speeding [i.e., speed surpassed posted limit by 8 kph (5 mph)], running stop signs and traffic lights, and lane violations (i.e., crossing centerline or road edge).

Driving maintenance was assessed via the recording of three driving behaviors. These behaviors were speed, speed variability (i.e., standard deviation of speed) and lane maintenance (i.e., standard deviation of lane position). Data were sampled at a rate of every 30.5 m (100 ft) traveled.

Attention lapses were operationally defined, then recorded manually by a research assistant reviewing the simulation replays of each participant. An attention lapse was recorded when one of the following *a priori* criteria were met: (a) driver failed to scan the intersection at a stop sign; (b) driver stopped completely in the absence of a stop sign; (c) driver, who initially stopped at a red light, proceeded into the intersection prior to the light turning green, but did not go far enough for the computer to register it as a traffic light violation; (d) driver stopped at a green light.

Response times were taken for various driving events. These events included the mean length of time participants waited to begin driving after a red traffic light turned green, after being stopped at a stop sign, and the mean time to step on the brake in response to two reaction time events occurring in each scenario. These last reaction time events were surprise occurrences in which a stop sign instantly (and randomly from the driver's perspective) appeared on the monitor and filled the driver's field of view.

2.5. Procedures

An initial pilot study was conducted to determine whether adjustments in the protocol were necessary and to ensure that the equipment was working properly. The scenarios were standardized prior to testing. In the experimental series, participants completed the informed consent form and the Demographic and Driving History Questionnaire then performed the driving task while sometimes engaged in a cell phone conversation and/or engaged in a signal detection task. The study was a 2 (signal detection task: on versus off) × 2 (distraction: phone versus none) completely within subjects design. Each of the four testing conditions lasted approximately 15 min. Participants completed a practice scenario that lasted approximately 18 min prior to beginning the experimental scenarios. The driving conditions were counterbalanced across participants to control for carryover effects.

Each of the four experimental driving conditions contained the same events including intersections, buildings, pedestrians, cars, and other obstacles, though in different orders. Within each driving scenario, the traffic lights varied in color as the participant approached and the stop signs varied in terms of being a two- or four-way, but the number of each was constant across scenarios. The speed limit indicated in posted signs, varied from 35 to 45 mph (56.32–72.42 kph) within each scenario. All of the roadways had two 3.66 m (12 ft) lanes in each direction. The traffic scene visible through the simulated windshield (including car hood, roads, traffic, buildings, pedestrians, etc.), dashboard (including speedometer, tachometer, and trip odometer), and signal task was displayed on the LCD monitor.

Participants were instructed to drive as they normally would. Emphasis was given to obeying all traffic laws, following the speed limit, stopping at red lights and stop signs, using the turn signal as an indicator, and avoiding accidents with other cars, objects, and pedestrians. Drivers were notified with a siren wav file if their speed was in excess of 8 kph (5 mph) above the posted limit or if they failed to stop at a stop sign or red light. Instructions were given to stay on the current road, rather than turning at intersections.

When the participant reached 8.69 km (28,500) feet the scenario automatically ended. Participants took brief breaks between each experimental condition while the scenarios loaded onto the computer. At the conclusion of the driving task, participants were afforded the opportunity to ask questions pertaining to the study.

3. Results

3.1. Driving history

Data from the driving history questionnaire revealed that 67% of the current participants reported having been involved in at least one accident, though only 41% stated that they were found to be at fault. As a whole, the current sample of participants reported having received an average of 1.7 traffic tickets each, with speeding tickets accounting for 68% of those violations. When asked about their driving behaviors, more than half of the participants (58%) indicated that they dialed a cell phone while driving in a typical week (4.4 times on average). Nearly 80% reported that they engaged in at least one hand-held cell phone conversation while driving in a typical week with the average number of hand-held cell phone conversations being 8.4 at an average of 7 min per day. Participants reported driving approximately 24.1 km (15 miles) on average per day. Further, engaging in cell phone conversations was the second most often reported distraction to changing the radio station, compact disk or audio tape ($M = 13.7$ times per week).

3.2. Traffic violations

Because of the relatively infrequent occurrence of the individual types of violations in the driving simulator, total traffic violations were summed for analysis. A main effect of cell phone use on commission of traffic violations was observed,

Table 1
Means and standard deviations for total violations

	Without phone	With phone	Total
Without signal task			
M	3.81	5.33	4.57
S.D.	2.84	3.44	3.14
With signal task			
M	2.89	5.03	3.96
S.D.	2.32	3.44	2.88
Total			
M	3.35	5.19	
S.D.	2.58	3.44	

$F(1, 35) = 20.51$, $p < 0.001$. Drivers committed more violations during scenarios in which they engaged in a simulated cell phone conversation than in conditions without that distraction (see Table 1). The signal detection task had little impact on this aspect of driving performance, $F(1, 35) = 2.24$, $p = 0.06$ and the two distracting tasks did not have an interactive effect. However, signal detection performance was poor overall whether drivers were on the cell phone or not. Participants averaged just 4.53 (S.D. = 2.65) correct detections out of 10 during the cell phone driving condition and 4.42 (S.D. = 2.74) when driving was the only other task, $F(1, 35) < 1.0$. Reaction times (in seconds) to the signal detection task for correct detections were similarly poor in both the cell phone condition ($M = 1.33$, S.D. = 0.40) and driving-only condition ($M = 1.24$, S.D. = 0.38), $F(1, 35) = 1.46$, $p > 0.05$.

3.3. Driving maintenance

Driving speed was not significantly impacted by the cell phone task, $F(1, 35) = 2.37$, $p > 0.05$, but participants did drive a bit faster with the signal task than without it, $F(1, 35) = 10.69$, $p < 0.01$ (see Table 2). However, an interaction effect was observed, $F(1, 35) = 24.43$, $p < 0.001$, indicating that the effect of the signal detection task on speed was only evident when the scenario included a phone conversation. That is, for the phone conversation scenarios participants drove at a higher average speed when they were also engaged in the signal detection task. No significant main effects of the tasks on variability of speed were found, but the two tasks had an interactive effect, $F(1, 35) = 13.63$, $p < 0.01$, in that speed varied the most when participants were not engaged in either non-primary task. The two distraction tasks had similar effects in decreasing the variability of drivers' lane maintenance behavior. Participants deviated less from their lane position when they were engaged in either a cell phone conversation, $F(1, 35) = 16.62$, $p < 0.001$, or a signal detection task, $F(1, 35) = 12.77$, $p < 0.01$. No significant interaction was found.

Whereas, the small number of lane violations (crossing centerline or road edge; overall $M = 1.21$, S.D. = 1.54) could not by itself account for the large deviations in lane position, the number of lane changes made could help explain this finding. Therefore, additional analysis was conducted to examine whether the number of lane changes varied by condition. Engaging in either the cell phone conversation, $F(1, 35) = 20.72$, $p < 0.001$, or the signal detection task, $F(1, 35) = 25.33$, $p < 0.001$, decreased the number of times drivers changed lanes. The phone and signal detection task had an interactive effect on this driving measure, $F(1, 35) = 4.91$, $p < 0.05$. That is, when participants were not required to engage in the cell phone task, the signal task greatly reduced the number of lane changes. However, when participants were engaged in conversation, the additional impact of the signal detection task was much smaller.

Table 2
Means and standard deviations for driving maintenance behaviors

	Without phone	With phone	Total
Speed, kph (mph)			
Without signal task			
M	34.36 (21.35)	33.67 (20.92)	34.02 (21.14)
S.D.	3.32 (2.06)	2.83 (1.76)	3.07 (1.91)
With signal task			
M	34.15 (21.22)	35.49 (22.05)	34.83 (21.64)
S.D.	2.95 (1.83)	2.64 (1.64)	2.80 (1.74)
Total			
M	34.26 (21.29)	34.58 (21.49)	
S.D.	3.14 (1.95)	2.74 (1.70)	
Speed variability, kph (mph)			
Without signal task			
M	22.48 (13.97)	21.95 (13.64)	22.21 (13.80)
S.D.	1.66 (1.03)	1.74 (1.08)	1.71 (1.06)
With signal task			
M	21.81 (13.55)	22.05 (13.70)	21.92 (13.62)
S.D.	1.64 (1.02)	1.59 (.99)	1.63 (1.01)
Total			
M	22.14 (13.76)	22.00 (13.67)	
S.D.	1.66 (1.03)	1.67 (1.04)	
Lane position S.D., m (ft)			
Without signal task			
M	1.61 (5.27)	1.45 (4.77)	1.53 (5.02)
S.D.	0.29 (0.95)	0.34 (1.10)	0.31 (1.03)
With signal task			
M	1.40 (4.59)	1.23 (4.05)	1.32 (4.32)
S.D.	0.40 (1.31)	0.52 (1.69)	0.46 (1.50)
Total			
M	1.50 (4.93)	1.34 (4.41)	
S.D.	0.34 (1.13)	0.43 (1.40)	
Lane changes			
Without signal task			
M	7.25	4.64	5.94
S.D.	3.12	3.32	3.22
With signal task			
M	4.42	3.53	3.97
S.D.	3.60	3.36	3.48
Total			
M	5.83	4.08	
S.D.	3.36	3.34	

3.4. Attention lapses

Because attention lapses are manifested in the context in which they occur (i.e., may have different outcomes based on the specific situation at the time) the four different types of lapses were treated equally and combined for the purpose of analysis. Both the phone conversation task, $F(1, 35) = 19.28$,

Table 3
Means and standard deviations for attention lapse behaviors

	Without phone	With phone	Total
Without signal task			
M	1.56	2.17	1.87
S.D.	3.70	3.13	3.42
With signal task			
M	1.36	3.64	2.50
S.D.	3.67	4.41	4.04
Total			
M	1.46	2.90	
S.D.	3.69	3.77	

Table 4
Means and standard deviations for response time data

Without phone	With phone	Total
Stop sign delay (s)		
Without signal task		
6.83	7.41	7.12
1.72	1.72	1.72
With signal task		
6.98	7.07	7.03
1.17	1.73	1.45
Total		
6.90	7.24	
1.45	1.73	
Traffic light delay (s)		
Without signal task		
1.37	1.79	1.58
0.41	0.43	0.42
With signal task		
1.41	1.46	1.44
0.33	0.45	0.39
Total		
1.39	1.62	
0.37	0.44	
Reaction time event (s)		
Without signal task		
0.83	0.84	0.84
0.11	0.15	0.13
With signal task		
0.88	0.81	0.85
0.10	0.07	0.09
Total		
0.86	0.83	
0.11	0.11	

$p < 0.001$, and the signal detection task, $F(1, 35) = 4.22, p < 0.05$, significantly increased the number of attention lapses committed (see Table 3). The significant interaction of these two tasks was evident in that the increase in the number of attention lapses committed in the phone conditions (as compared to the non-phone conditions) was greater when participants also had to perform the signal task, $F(1, 35) = 6.97, p < 0.05$.

3.5. Reaction times

Drivers waited approximately one-third of a second longer to begin driving after arriving at a stop sign when they were in the phone conversation conditions than when they were not, $F(1, 35) = 4.31, p < 0.05$ (see Table 4). The signal detection task did not affect drivers' response times following the stop signs, $F(1, 35) < 1$. No significant interaction was observed. Response times to the changing of red to green traffic lights did not follow the same pattern as that for stop signs. Whereas, main effects demonstrated that delays were longer for participants engaged in phone conversation, $F(1, 35) = 30.62, p < 0.001$, the delays were shorter when drivers were engaged in a signal detection task, $F(1, 35) = 5.65, p < 0.05$. The significant interaction, $F(1, 35) = 19.60$, $p < 0.001$, reveals that the phone conversation delayed participants' responses more when they were not also engaged in the signal detection task. In response to the pop-up stop signs (i.e., reaction time events), participants hit their brakes an average of 0.03 s sooner when in the phone conversation conditions. Though this difference was relatively small, it was significant, $F(1, 35) = 4.61, p < 0.05$. The signal detection task had no significant impact on reaction times to these events, $F(1, 35) < 1$, but did interact with the cell phone, $F(1, 35) = 7.77, p < 0.01$. That is, when not involved in the signal task, the phone had little impact on reaction times, but when engaged in the this task reaction times for those on the phone were faster than those not on the phone. However, it should be noted that signals did not appear at the same time as the pop-up stop signs.

4. Discussion

4.1. Driving performance

Results from this study demonstrate some of the potential dangers of engaging in a secondary task (particularly one that is cognitively demanding) while driving. Drivers in the current study showed a significant increase in traffic violations and attention lapses while talking on a phone, despite the investigator's instructions emphasizing careful driving and the fact that the phone used was hands-free as to not interfere with the driver's manual control of the vehicle. This is likely an indication that participants lacked situation awareness, rather than decreased motor control.

The results regarding lane maintenance behaviors were counter to that which was anticipated, but in retrospect, consistent with Seppelt and Wickens (2003) findings. That is, participants likely protected their lane keeping by shedding peripheral tasks in order to maintain a straighter course in the presence of the distracter tasks. For instance, drivers not engaged in either secondary task changed lanes the most frequently. When participants were in the other conditions, simplifying their driving behaviors (e.g., fewer lane changes and less deviations in speed) may have allowed them to focus more on their phone conversations.

Performance on the divided attention (signal detection) task was inconsistent with what was anticipated. The poor performance on the relatively easy signal detection task and the fact that few of the driving measures were adversely affected by that task may indicate that participants often ignored that task in favor of the cell phone or driving tasks. In fact, the number of signals

detected was nearly the same whether participants were on the phone or not. Unlike the introduction of static, but highly salient, objects like stop signs (which were often missed), the signals changed physically. Identifying potential hazards by noticing changing objects is considered to be a primary and immediate task of driving (Wickens et al., 1998). The inability to spot stimulus changes (e.g., a child running into the street) in an actual highway setting could have serious negative consequences for safety.

Overall results from the current study suggest that when drivers were overloaded with a cognitively demanding conversation they tended to overlook some peripheral driving tasks. Disregarding the "extra" tasks enabled the drivers to devote more attentional resources to the successful completion of the two presumed primary tasks of driving and talking on the phone. The tendency to shed tasks became apparent in the current study from the participants' increased traffic violations, attention lapses, and decreased lane position standard deviation. The task shedding and driving behaviors provide further support for the notion that participants engrossed in cell phone conversations lacked situation awareness. That is, participants appeared to be either completely unaware of, or failed to process, vital information in their driving environment. Some traffic violations (in particular, stop sign infractions) increased by as much as three-fold when drivers were talking on the phone. All of the participants answered the conversational questions in the two talking scenarios; therefore, it can be argued that the attentional resources were reallocated to engaging in the conversation while driving.

One theoretical explanation for the impact of cell phones on driving performance comes from the concept of cross-modal interference in the time sharing of cognitive resources. According to Wickens and Hollands (2000), cross-modal time-sharing (e.g., visual and auditory input) can be accomplished more effectively than intra-modal time-sharing (e.g., visual and visual input). Whereas, the sensory inputs used to drive (primarily visual) and converse (typically auditory) may often be used concurrently without interference, conversations that tap into visual resources (such as many of the questions asked in the current study) may produce a great deal of interference. The competing visual-spatial demands of the driving task and conversation (e.g., describing physical aspects of your home, or providing map directions) resulted in the likely reduction of attention given to processing visual cues in the periphery. It appears from this and other studies on the topic of driving while talking that cross-modal interference occurs when cognitive demands are high (e.g., busy intersections, or responding to complicated questions).

Results from the current study revealed a larger picture of the behavioral tendencies of those participating in a phone conversation while driving. In previous research where fewer variables were examined, singular behavioral patterns emerged (e.g., increased lane deviations and decreased driving speed) when talking on the phone while driving. In the current study, where multiple variables were examined together, a tendency to shed peripheral tasks (e.g., lane maintenance and scanning of intersections) and attend to primary tasks emerged. Though some results were contradictory to previous findings, the study revealed a larger behavioral picture of the effects of dual-task or distracted driving.

4.2. Conclusion

The adverse effects of talking while driving were clear in the present study. Participants coped with the demands of engaging in a phone conversation while driving by narrowing their attention, shedding peripheral tasks (e.g., signal detection task), and focusing on more immediate tasks. In the talking conditions, participants committed more traffic violations, committed more attention lapses, changed lanes less frequently, but reacted more quickly to events occurring directly in the line of sight. The current results add to the growing literature on the effects of distracted driving, though more research on the effects of varying the driving conditions is needed. For instance, future studies should explore the effects that varying time-on-task, driving environment and stimulation level, and conversation types have on dual-task driving performance. Whereas, the current study helps to identify the potential dangers of cell phones (or other distracters) in vehicles, additional research is warranted to establish the generalizability of the results. The current data add support for the recent attempts by some states to limit or ban the use of cell phones in vehicles. However, the findings also suggest that a ban on cell phone use should include hands-free phones; not just hand-held phones.

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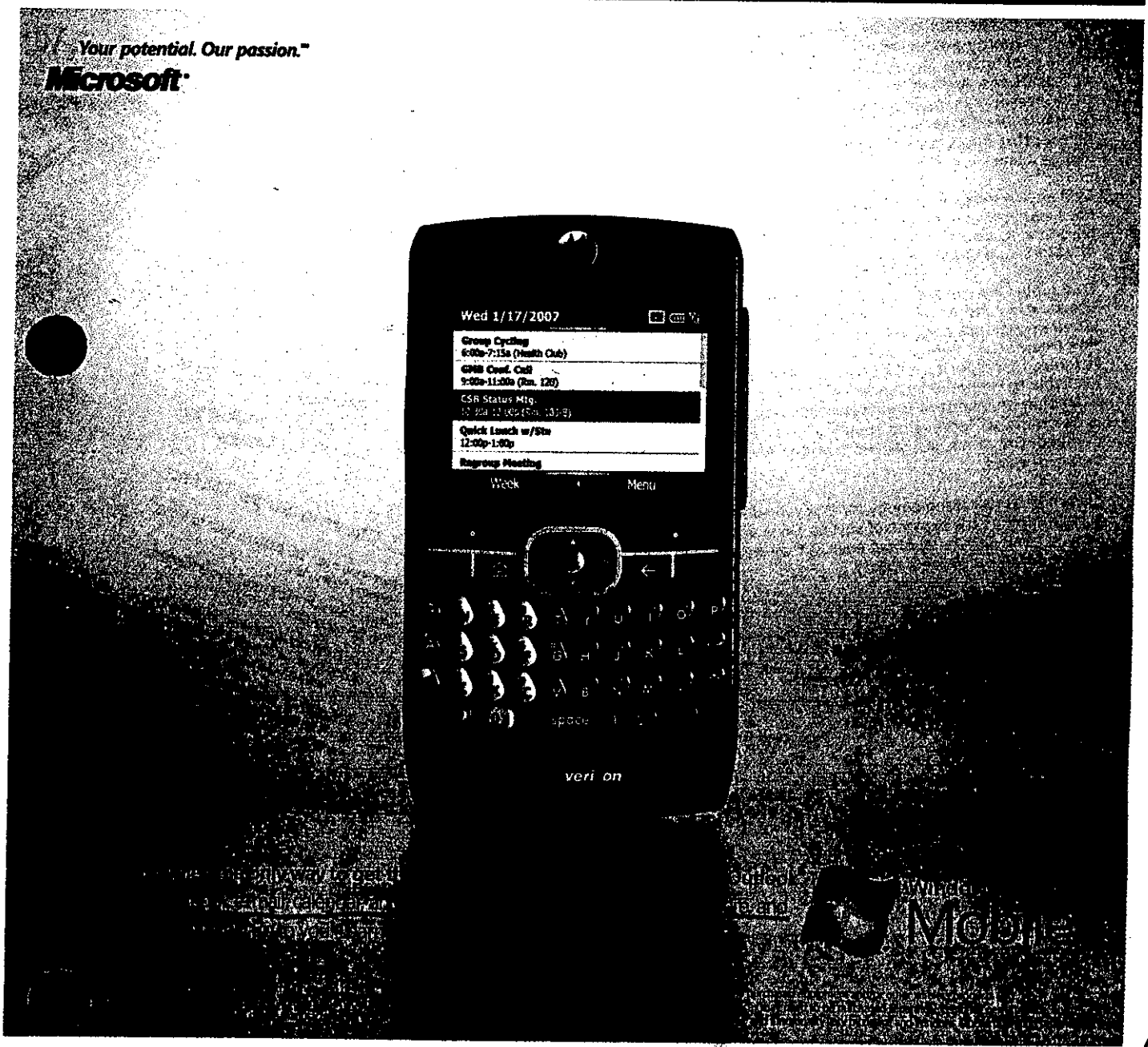

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Opinion

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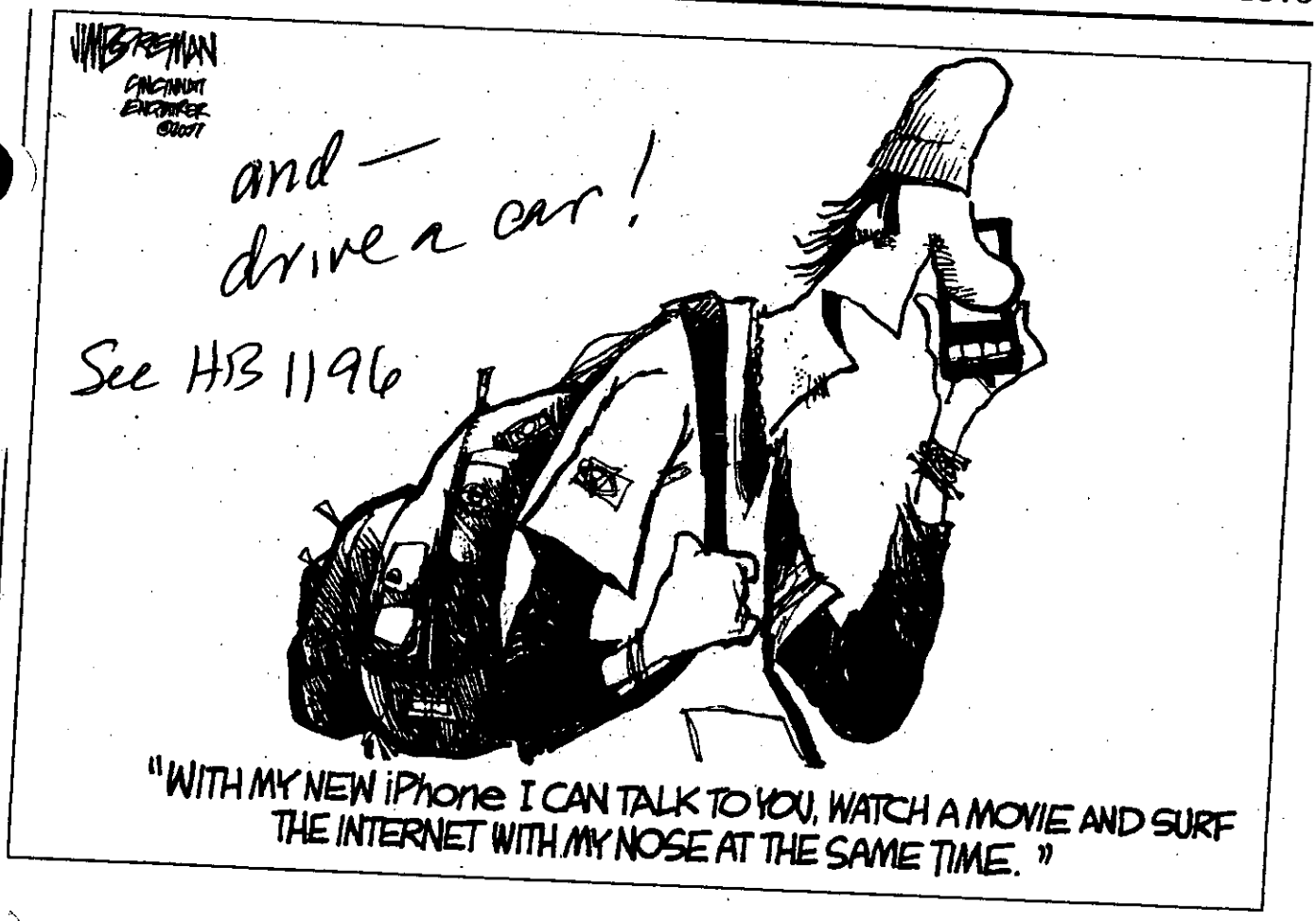

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Text-Messaging Teen Pleads Guilty In Cyclist Death

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Jim Price died after a teen driver swerved into the bicycle lane and struck him.

Teen Gets Probation, Home Detention

POSTED: 4:55 am MST February 7, 2006

CASTLE ROCK, Colo. -- A teenager who was text messaging when he lost control of his vehicle and struck and killed a cyclist has pleaded guilty to careless driving causing death.

Douglas County sheriff's Lt. Alan Stanton said that Jim R. Price, 63, was riding his bicycle in a bicycle path Nov. 23 when he was hit by the teen's car near Wildcat Reserve Parkway and Summit View.

District attorney spokeswoman Kathleen Walsh said the 17-year-old was sentenced to four years probation. He will not be allowed to operate a motor vehicle or possess a cell phone during that time.

The teen will be in home detention, be required to wear an ankle bracelet, and serve nine days in jail.

The teen must also perform 300 hours of community service, pay $2,600 in fines and court costs.

Previous Stories:

- December 2, 2005: Teen Charged In Text Messaging Fatal Accident
- November 28, 2005: Family Of Slain Cyclist Upset With Text Messaging Teen
- November 25, 2005: Teen Text-Messaging Friend Runs Over Bicyclist

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Teen Hits Cop While Text Messaging and Driving

August 29th, 2006 - Posted under Industry News

A Michigan State Police officer was injured in an accident due to a teen driver who was sending a text message while driving. The 17 year old teen driver hit the back of a police car, which was assisting another car crash when the car spun around and hit the officer, who was thrown into the air. The teenager suffered minor injuries while the cop is still being treated at Detroit Receiving Hospital.

Source: Detroit Free Press

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Thursday, September 21, 2006

Coroner's Jury Rules In Cyclist's Death

A coroner's jury says the death of a bicyclist in Urbana is a homicide. The coroner says 19-year-old Jennifer Stark hit 25-year-old Matthew Wilhelm while he was riding a bike on Route 130 south of Windsor Road. It happened earlier this month. Stark told police she was downloading a ringtone on her cell phone when she changed lanes and hit Wilhelm. Stark was given a ticket for improper lane usage. The state's attorney says she doesn't expect any new charges.

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$4 mil. award in BlackBerry car accident

(www.suntimes.com/news/metro/166386,CST-NWS-berry09.article)

December 9, 2006

BY ABDON M. PALLASCH Legal Affairs Reporter

A 71-year-old Arlington Heights woman will get $4.1 million because a van driver last year ran a red light and crashed into her while he was looking down at his BlackBerry, attorneys said Friday.

Don Svec, an employee of Berry Electric Contracting Co., was lost and using his BlackBerry's navigation device to try to find his destination, it emerged during interviews leading up to the trial in the case, said Tim Cavanagh, attorney for Dorothy Barnes, who was badly hurt in the crash.

Metal in her pelvis

But on the day the accident happened, Sept. 27, 2005, Svec's use of the handheld device was not clear, and he was merely ticketed for running a red light, Cavanagh said.

Barnes, then 70, a retired employee of a Mount Prospect bank, was driving her Saturn on Dryden Road across Rand Road in Arlington Heights when Svec ran a red light and crashed into her, Cavanagh said.

Svec could not even say if the light was green or red when he went through it, he said in depositions. But witnesses said he ran the red light.

"It was a clear day -- he plowed right into her," Cavanagh said.

Cavanagh said he could not get reliable statistics for how many people had been killed or injured nationwide because of drivers using BlackBerrys or text-messaging on cell phones, but he asserted, "It's a growing problem in our society. It happens more and more often."

Barnes was taken after the accident to Lutheran General Hospital, where she underwent five surgeries, including two on her neck, where she has lost a range of motion. She has metal sticking out of her pelvis to hold it together, and she also has permanent vision problems, Cavanagh said.

The settlement

"We're very gratified by the good recovery that Mrs. Barnes has made," said Harvey Paulsen, attorney for Svec and Berry Electric Contracting Co., whose insurance will cover the settlement.

Berry is "a family-owned business, established nearly 100 years ago," Paulsen said. Svec still drives for the company.

Cases can take years going through Cook County Circuit Court, but this one was on an expedited schedule because of Barnes' age. The trial was set to start Dec. 1 when the parties agreed to a settlement. They hashed out the details over the last week and announced the settlement Friday.

The judge was Donald O'Brien, who recently presided over a trial that resulted in a $7 million libel verdict for Illinois Supreme Court Chief Justice Bob Thomas.

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Testimony in Opposition to House Bill 1196
House Transportation Committee

Thomas D. Kelsch – Alltel Communications

Chairman Weiss, Members of the House Transportation Committee, my name is Tom D. Kelsch, with the Kelsch Law Firm. I am here to speak on behalf of Alltel Communications. Alltel is a wireless telephone company that does business in North Dakota and is a successor company to Cellular One.

The wireless industry is an avid supporter of safe driving and believes driver education is the most effective tool to increase safety awareness among those behind the wheel of vehicles on our nation's roads and highways. The wireless industry is dedicated to promoting safe driving with its public service announcement (PSA) campaign, "With Wireless, Safety Is Your Call." The campaign encourages drivers to use their devices responsibly, and Public Service Announcements have been distributed to more than 1,500 television stations, 500 cable television operators, and 3,500 radio stations.

House Bill 1196 is an attempt to ban the use of cell phones by a driver under the age of 18. The penalty for this violation would be a fine and the minor driver would receive 4 points against his license. If a minor gets 6 points on their license they lose their license and have to start the process all over. They have to get a permit, take drivers training class and retake their driver's exam. This would be a great burden on a 16 or 17 year old who has to drive to school or work and who would not be able to for months. This suspension would be reportable to the minor's insurance company and his parent's insurance rates would increase dramatically for the next three years.

For this offense to occur the minor driver does not have to get in an accident, or even be driving erratically. If a patrolman saw what they thought was a minor driving and using a phone the driver could be pulled over. If the driver is under 18 they may lose their license. If they pulled over my daughter, who turned 18 last month, it is not a violation.

Driver's engage in any number of distracting activities, including eating, drinking, smoking, applying makeup, tuning radios, changing cassettes, and compact discs, using i-pods, watching movies, reading maps, looking at scenery and sights outside the car, engaging in conversations with other vehicle occupants, including occupants in the back

seats. It is impossible to legislate against all such activities. Of all of those distracting activities, the cell phone is the only activity that can make the highways and roads safer. Cell phones have helped reduce emergency response times and assisted in the apprehension of drunk, impaired and aggressive drivers. In a survey of police officers, over 65% of the officers believed that the benefits of cell phone use far outweigh the risks. Also current legislation on careless or reckless driving, is adequate and applicable to unsafe uses of cell phones or any other new devices that may be used in a moving vehicle.

In states where they have been collecting data on causes of accidents, cell phone use has been a factor in the accident in only a very small percentage of the accidents, less than 1 % of the accidents. As a percent of the distractions a driver faces cell phone use was ranked behind the following distractions

Looking at traffic and roadside incidents:	16%
Driver Fatigue	12%
Looking at scenery	10%
Passenger and Child distractions	9%
Adjusting radio, CD, Tape Player	7%
Wireless Phone	5%
Eyes not on the road	4.5%
Following to Closely	4%

Common factors for accidents involving teens are:

a. Friends in another vehicle,
b. Use of Headphones, and
c. Show-off factor.

House Bill 1196 targets only one of the distractions and ignores all of the rest. The issue should be trying to discourage unsafe and distracted driving it shouldn't matter what the cause of the distraction is. Analogy, when a law enforcement officer stops and arrests someone for a DUI, it doesn't matter whether they were under the influence because they drank beer, wine, hard liquor, or illegal drugs. Laws should deal with unsafe driving not the source of the unsafe driving. The rationale behind House Bill 1196

is that because some minor drivers are careless or reckless while driving and using their cell phone, and have caused some accidents the state should make it illegal for any minor to use a cell phone while driving.

In North Dakota minors are given great responsibilities. These responsibilities include driving, hunting, contact sports, working, and babysitting small children. I believe that minors are capable of making decisions about driving safely including the use of cell phones as well as other distractions.

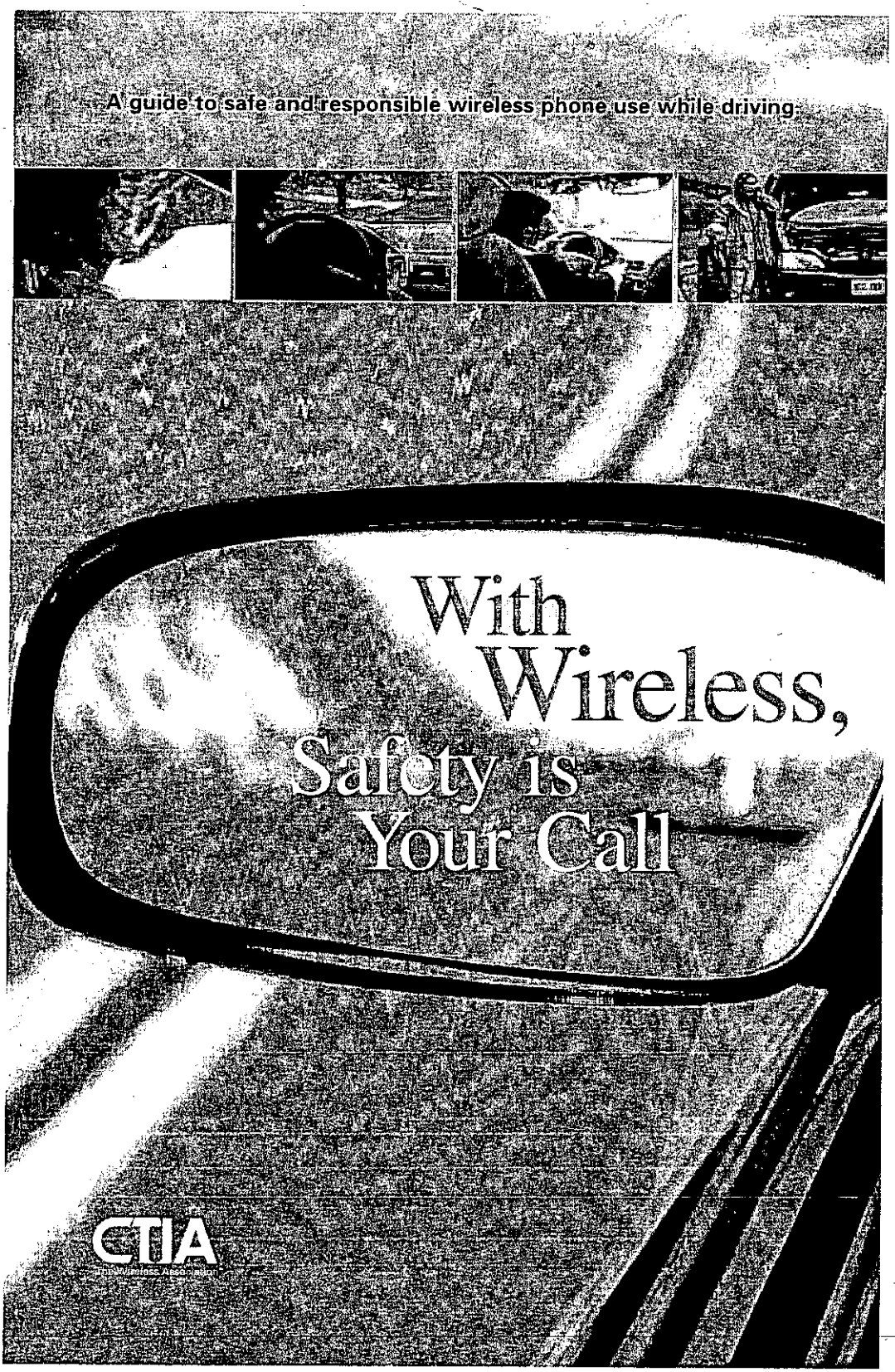
We can never make the world completely safe for our children. Parents, teachers, schools and our government will never be able to create a risk-free world for children. Instead we must give our children the tools they need to make the right choices regarding their safety now and in the future.

When we regulate responsibility, we take the decisions out of the hands of the parents and our children and give these decisions to the government. This sends the message to our children that they are not responsible for their own safety, the government is.

In conclusion, rather than criminalizing the use of cell phones by minors while driving, the cell phone industry emphasizes education and training in the safe use of cell phones.

Please give House Bill 1196 a "**DO NOT PASS**" recommendation.

Submitted by Tom Kelsch



Wireless devices give consumers the freedom to stay connected with family and friends, to conduct business and to have fun virtually anytime, anywhere. But, when it comes to using wireless phones behind the wheel, it's important to remember that safety always comes first.

Drivers face many distractions in the car – from eating and drinking to playing music or talking with other passengers. The wireless industry has worked closely with the public safety community, to help educate drivers on the range of distractions they face behind the wheel as well as when it is appropriate to place or receive a wireless phone call. Educational efforts that provide practical and sound advice, rather than legislation, are the best methods to truly affect driver behavior in a positive way.

Through industry-sponsored public service announcements and outreach, drivers are reminded to, before reaching for the phone while driving, ask themselves, *"Is this call necessary?"* If it is necessary to use a wireless phone while driving, the wireless industry encourages drivers to follow some basic do's and don'ts to ensure that a wireless phone doesn't become a distraction.

Wireless Safety Tips

1. *Get to know your wireless phone and its features such as speed dial and redial.*
2. *Position your wireless phone within easy reach.*

3. *Dial sensibly and assess the traffic; place calls when you are not moving or before pulling into traffic.*
4. *Let the person you are speaking with know you are driving; if necessary, suspend the call in heavy traffic or hazardous weather conditions.*

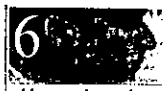
5. *Do not take notes or look up phone numbers while driving.*

Your wireless phone can be your best traveling partner – offering a lifeline in emergencies, helping to locate directions and keeping you connected with family and friends when necessary. In fact, wireless phones are one of the best safety tools drivers can have on the road. Every day, more than 200,000 calls are made from wireless phones to 911 or other emergency services. That's about 140 calls every minute. More Americans are using their wireless phones to report emergencies, to prevent crimes, and even to save lives.

But safety should be every driver's top priority. That means making good judgment calls about when it's appropriate to use your wireless phone. It also means keeping your eyes on the road and being cautious and courteous of other drivers. Every state has hazardous or inattentive driving laws to discourage distracted driving – no matter what the cause.

So, play it safe and remember,

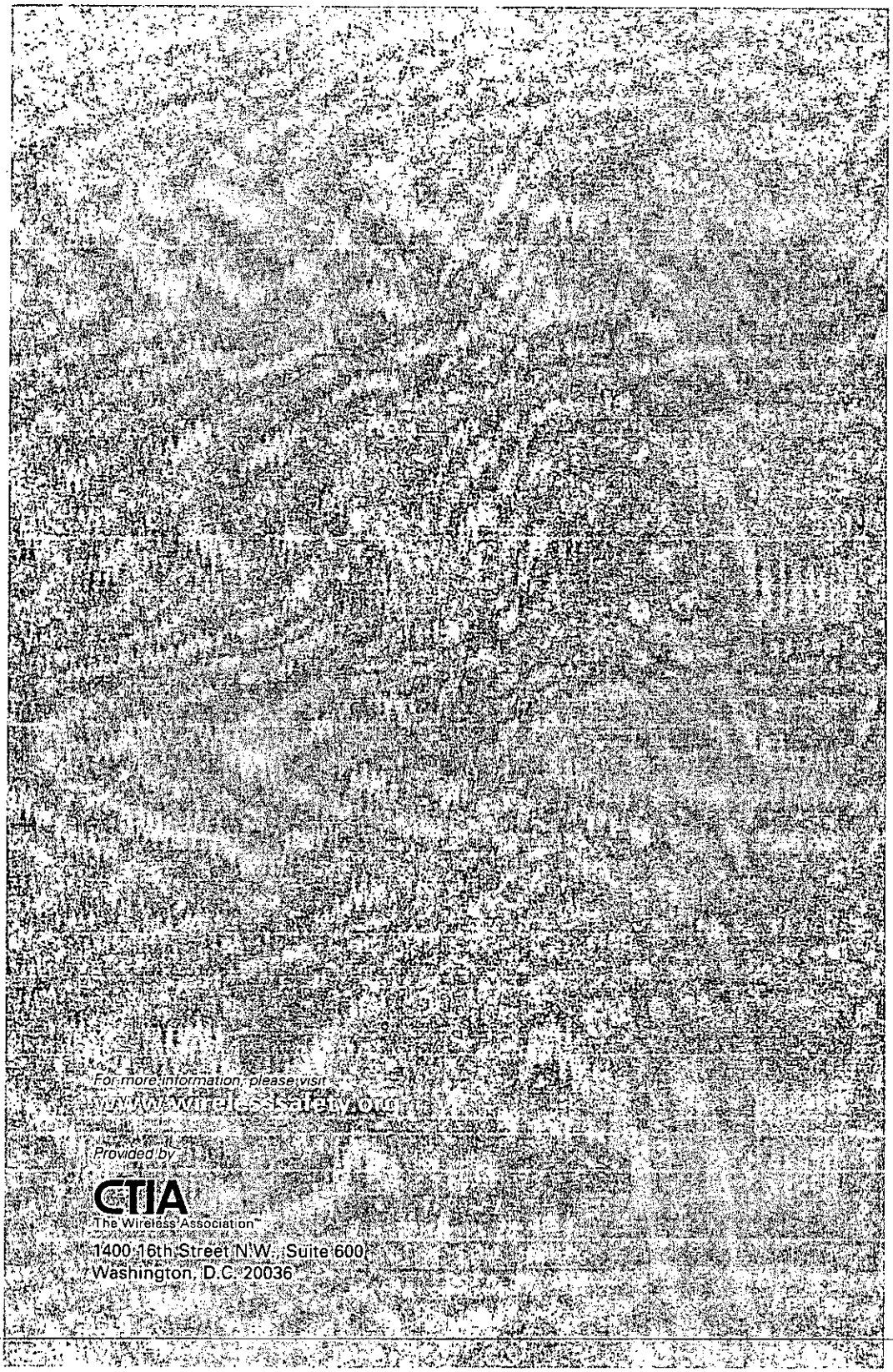
with wireless, safety is your call!



6. *Use a hands-free device for convenience and comfort.*
7. *Do not engage in stressful or emotional conversations that might divert your attention from the road.*

8. *Dial 9-1-1 or other local emergency numbers to report serious emergencies – it's free from your wireless phone!*

9. *Use your wireless phone to help others in emergencies.*
10. *Call roadside assistance or a special non-emergency wireless number when necessary.*



For more information, please visit

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