HB

22

<TARGET><BILL>HB 22</BILL><SUBJECT>HB
22</SUBJECT><COMM>HTRA27</COMM></TARGET>

27-LS0155\B
Luckhaupt
2/24/11

CS FOR HOUSE BILL NO. 22( )

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWENTY-SEVENTH LEGISLATURE - FIRST SESSION

BY

Offered:
Referred:

Sponsor(s): REPRESENTATIVES MUÑOZ AND HERRON

A BILL

FOR AN ACT ENTITLED

"An Act prohibiting the use of a cellular telephone when driving a motor vehicle."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

*** Section 1.** AS 28.35 is amended by adding a new section to read:

Sec. 28.35.165. Prohibited use of cellular telephone. (a) A person may not use a cellular telephone when driving a motor vehicle on a highway or vehicular way or area.

(b) This section does not apply to a person using a cellular telephone

(1) for emergency purposes, including an emergency call to a law enforcement agency, fire department, or other emergency services agency or entity; or

(2) by hands-free mode.

(c) In this section,

(1) "emergency" has the meaning given in AS 42.20.150;

(2) "hands-free mode" means use of a cellular telephone for listening or talking by means of a speaker function, headset, or earpiece without holding the telephone.

(d) A person who violates this section is guilty of an infraction and may be punished as provided under AS 28.90.010.

REPRESENTATIVE CATHY MUÑOZ

HB22: PROHIBIT CELL PHONE USE WHILE DRIVING

If enacted, House Bill 22 will prohibit cell phone use while driving, unless a hands-free unit is being used or an emergency situation exists. The allowance for hands-free devices will accommodate commercial drivers, tour operators and others to allow flexibility in the implementation of the law. Nine states, and the District of Columbia, have prohibited the use of cell phones while driving for all drivers, twenty-eight states prohibit novice drivers – usually defined as drivers under 18 years old – and thirty states, and the District of Columbia, ban drivers from text messaging, including Alaska.

Cell phone use in the United States has been on a rapid increase in the past decade. According CTIA – The Wireless Association, there are about 293 million subscribers, representing more than 84 percent of the U.S. population, as of June 2010.

Distracted drivers create a risk to all motor vehicles, bicyclists and pedestrians. Driver performance is affected by the cognitive distractions associated with cell phone tasks which typically decrease reaction time, travel speed and increase lane deviations and steering wheel movements, resulting in a higher number of crashes.

The National Highway Traffic Safety Administration Distracted Driving Report (2009) estimates 5,474 people were killed and an additional 448,000 were injured in motor vehicle accidents that involved distracted driving. The University of Utah published a study showing motorists who talk on cell phones are as impaired as drunk drivers. As for cell phone use in Alaska, according to the Alaska 2010 Highway Safety Phone Survey 61% of Alaskan drivers talk on their cell phone while driving.

HB22 will create safer roads for all travelers and help to prevent accidents caused by distracted drivers. I urge your support in the passage of HB22.

LEGAL SERVICES

DIVISION OF LEGAL AND RESEARCH SERVICES
LEGISLATIVE AFFAIRS AGENCY
STATE OF ALASKA

(907) 465-3867 or 465-2450
FAX (907) 465-2029
Mail Stop 3101

State Capitol
Juneau, Alaska 99801-1182
Deliveries to: 129 6th St., Rm. 329

MEMORANDUM February 1, 2011

SUBJECT: Sectional Summary - Draft SSHB 22
(Work Order No. 27-LS0155\M)

TO: Representative Cathy Muñoz
Attn: Kendra Kloster

FROM: Gerald P. Luckhaupt
Assistant Revisor

You have requested a sectional summary of the above-described bill draft. As a preliminary matter, note that a sectional summary of a bill should not be considered an authoritative interpretation of the bill -- the bill itself is the best statement of its contents.

Section 1 of the bill adds a new section to AS 28.35 to provide that a person who uses a cellular telephone when driving a motor vehicle commits an infraction. Definitions and situations where the prohibition does not apply are listed.

GPL:ljw
11-063.ljw

FISCAL NOTE

STATE OF ALASKA
2011 LEGISLATIVE SESSION

Fiscal Note Number
Bill Version **HB022**
() Publish Date

Identifier (file name): HB022-LAW-CRIM-02-25-11
Dept. Affected Law
Title An Act prohibiting the use of cellular telephone when driving a motor vehicle; and providing for an effective date.
Appropriation Criminal
Allocation Criminal Justice Litigation
Sponsor Representative(s) Munoz, Herron
Requester (H) Transportation
OMB Component Number 2202

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

	Appropriation Required	Information					
OPERATING EXPENDITURES	**FY 2012**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**
Personal Services							
Travel							
Services							
Commodities							
Capital Outlay							
Grants							
Miscellaneous							
TOTAL OPERATING	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
CAPITAL EXPENDITURES							
CHANGE IN REVENUES							

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts							
1003 GF Match							
1004 GF							
1005 GF/Program Receipts							
1037 GF/Mental Health							
Other (please identify)							
TOTAL	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Estimate of any current year (FY2011) cost 0.0

POSITIONS

Full-time							
Part-time							
Temporary							

Why this fiscal note differs from previous version (if initial version, please note as such)

Prepared by Eileen Donahue, Division Operations Manager
Phone 465-5427
Division Administrative Services
Date/Time 2/25/11 3:30 PM
Approved by John J. Burns, Attorney General
Date 2/25/2011
Department of Law

(Revised 1/27/2011 OMB)

STATE OF ALASKA
2011 LEGISLATIVE SESSION

BILL NO. HB 022

Analysis

HB 22 makes it an infraction to operate a motor vehicle on a highway or vehicular way while using a cell phone. The bill excepts use of a cell phone for emergency purposes or with a cell phone that is voice-activated or may be used hands-free.

Passage of this legislation would have no foreseeable fiscal impact on the Department of Law.

FISCAL NOTE

STATE OF ALASKA
2011 LEGISLATIVE SESSION

Fiscal Note Number
Bill Version: **HB 022**
() Publish Date

Identifier (file name) HB022-DPS-DET-02-25-11
Dept. Affected: Public Safety
Title: "An Act prohibiting the use of cellular telephones when driving"
Appropriation: Alaska State Troopers
Allocation: AST Detachments
Sponsor: Representative Munoz
Requester: House Transportation
OMB Component Number: 2325

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

	Appropriation Required	Information					
OPERATING EXPENDITURES	**FY 2012**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**
Personal Services							
Travel							
Services							
Commodities							
Capital Outlay							
Grants							
Miscellaneous							
TOTAL OPERATING	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
CAPITAL EXPENDITURES							
CHANGE IN REVENUES							

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts							
1003 GF Match							
1004 GF							
1005 GF/Program Receipts							
1037 GF/Mental Health							
Other (please identify)							
TOTAL	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Estimate of any current year (FY2011) cost

POSITIONS

Full-time							
Part-time							
Temporary							

Why this fiscal note differs from previous version (if initial version, please note as such)

Not applicable, initial version.

Prepared by: Lt. Rodney Dial — Phone: (907) 247-4480
Division: Alaska State Troopers — Date/Time: 2/25/11 3:38 PM
Approved by: Joseph Masters, Commissioner, Department of Public Safety — Date: 2/25/2011

(Revised 1/27/2011 OMB)

STATE OF ALASKA **BILL NO.** HB022
2011 LEGISLATIVE SESSION

Analysis

This legislation would amend AS 28.35 by adding a new section that would prohibit the use of certain cellular telephones when driving a motor vehicle. Violation would be an infraction and considered a primary traffic offense.

It is not estimated that this bill will significantly increase the workload of the division of Alaska State Troopers. There is no fiscal cost to the AST as a result of this legislation.

Alaska State Legislature

Representative Peggy Wilson
House District 2
Putting Alaska's Families First

FAX TRANSMITTAL SHEET

TO: LegLegal FAX# 465 2029

DATE: 3-10-11 FROM: Becky Rooney

SUBJECT: Request C.S for CSHB22 ver B

Total Pages (including cover sheet)_____

Please create a CSHB22 TRA using the attached amendments that passed House TRA 3-10-11. (Bill passed as amended)

Jan-May, Juneau: State Capitol • Juneau, AK 99801-1121 • *ph:* (907) 465-3824 • *fax:* (907) 465-3175
June-Dec, Wrangell: PO Box 109 • Wrangell, AK 99929 • *ph:* (907) 874-3088 • *fax:* (907) 874-3055
Rep.Peggy.Wilson@legis.state.ak.us • http://www.akrepublicans.org/wilson/ • 1-800-686-3824

27-LS0155\B.2
Luckhaupt
3/7/11

AMENDMENT #1 passed

OFFERED IN THE HOUSE

TO: CSHB 22( ), Draft Version "B"

Page 1, lines 7 - 10:

Delete all material and insert:

"(b) This section does not apply to a person

(1) using a cellular telephone for emergency purposes, including an emergency call to a law enforcement agency, fire department, or other emergency services agency or entity; or

(2) 18 years of age or older using a cellular telephone by hands-free mode."

27-LS0155\B.3
Luckhaupt
3/7/11

#2 passed

AMENDMENT

OFFERED IN THE HOUSE

TO: CSHB 22( ), Draft Version "B"

Page 1, line 1, following "**vehicle**":

Insert "**; and providing for an effective date**"

Page 2, following line 2:

Insert a new bill section to read:

"* **Sec. 2.** This Act takes effect July 1, 2011."

27-LS0155\M
Luckhaupt
1/28/11

SPONSOR SUBSTITUTE FOR HOUSE BILL NO. 22

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWENTY-SEVENTH LEGISLATURE - FIRST SESSION

BY REPRESENTATIVES MUÑOZ AND HERRON

Introduced:
Referred:

A BILL

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(b) This section does not apply to a person using a cellular telephone

(1) for emergency purposes, including an emergency call to a law enforcement agency, fire department, or other emergency services agency or entity; or

(2) that has a voice-activated or hands-free mode or configuration if the telephone is used in a voice-activated or hands-free manner.

(c) In this section,

(1) "emergency" has the meaning given in AS 42.20.150;

(2) "hands-free mode" means use of a cellular telephone for listening or talking by means of a speaker function, headset, or earpiece without holding the

telephone.

(d) A person who violates this section is guilty of an infraction and may be punished as provided under AS 28.90.010.

REPRESENTATIVE CATHY MUÑOZ

MEMORANDUM

TO: Representative Peggy Wilson
Transportation Chair

CC: Becky Rooney
Committee Aide

FROM: Representative Cathy Muñoz

DATE: January 31, 2011

RE: HB 22 Hearing Request

Please schedule HB 22 – Prohibit Cell Phone Use While Driving for a hearing in House Transportation at your earliest convenience.

Attached to this memo please find the following documents

- HB 22 – Prohibit Cell Phone Use While Driving
- Sponsor Substitute & explanation of changes
- Sponsor Statement
- Legislative Research Report
- Articles
- Support Letters
- Expected Testimony
    - Cindy Cashen, Administrator, Alaska Highway Safety Office, 957-2562, 465-4374

Office Contact: Kendra Kloster, 465-4712, Kendra_kloster@legis.state.ak.us

Thank You.

STATE CAPITOL • JUNEAU, ALASKA 99801-1182 • (907) 465-3744 • FAX (907) 465-2213
REPRESENTATIVE_CATHY_MUNOZ@LEGIS.STATE.AK.US

Alaska State Legislature

House of Representatives

Member

Standing Committees:
Judiciary
Rules
State Affairs
Transportation

Representative Max F. Gruenberg, Jr.
House District 20
Anchorage (Mountain View, Russian Jack, East Anchorage)
House Minority Floor Leader

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Alaska State Capitol, Rm 110
Juneau, Alaska 99801-1182
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Toll Free: (866) 465-4940
Fax: (907) 465-3766

Email:
Rep.Max.Gruenberg@legis.state.ak.us

John Moffat
Regional Administrator, Region 10
US DOT, NHSTA
915 Second Avenue, Suite 3140
Seattle, WA 98174

Dear Mr. Moffat:

As a co-sponsor of House Bill 22, which prohibits the use of hand-held cell phones while driving, as well as banning minors from using any cell phone while driving, I would like to request any information the US Department of Transportation and National Highway Traffic Safety Administration may have regarding how cell phone use while driving negatively impacts driver performance.

I would also like to request information on how enforcement of primary stop seatbelt laws helps to save lives and property. Specifically, I would like information on the economic impacts of changing from a primary violation to a secondary violation. I would also appreciate any other information you have that shows the consequences of how a primary stop seatbelt law impacts states and communities.

Thank you very much for your time. I appreciate your prompt consideration of these matters.

Cordially,

Max F. Gruenberg, Jr.
State Representative

CC: Rep. Peggy Wilson
Rep. Cathy Muñoz
Rep. Tammie Wilson

LEGISLATIVE RESEARCH REPORT

JANUARY 26, 2011

REPORT NUMBER 11.132

LAWS REGARDING CELLULAR PHONE USE BY DRIVERS

PREPARED FOR REPRESENTATIVE CATHY MUÑOZ

BY TIM SPENGLER, LEGISLATIVE ANALYST

You wanted to know what states have done regarding limiting or banning the use of cellular (cell) phones by individuals operating motor vehicles.[1]

Alaska Legislation Regarding Driver Cell Phone Usage

Under Alaska law (AS 28.35.161), enacted September 1, 2008, drivers are effectively banned from text messaging while operating a motor vehicle. Alaska is one of the 30 states (and the District of Columbia) to ban text messaging for drivers—thought by many experts to be the most distracting cell phone activity. There have also been several attempts in Alaska this decade to limit or ban the use of cell phones by all drivers, but none has been successful.

Currently, the Alaska legislature is considering three bills—House Bill 22, House Bill 35 and House Bill 68—all of which would prohibit the use of cellular telephones by an individual, regardless of age, while driving a motor vehicle.

Legislation in Other States

According to the Insurance Institute for Highway Safety (IIHS), as of January 2011, the following cell phone bans or restrictions are in place across the nation:[2]

- Nine states and the District of Columbia impose state-wide bans on driving while talking on hand-held cell phones;[3]

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[1] This report is essentially an update of Legislative Research Report 10.179 from February 18, 2010.

[2] The Insurance Institute for Highway Safety is an independent, nonprofit organization focused on reducing the losses — deaths, injuries, and property damage — from crashes on the nation's highways (*http://www.iihs.org/*).

[3] The nine states that impose state-wide bans on driving while using hand-held cell phones are California (Vehicle Code 23123), Connecticut (Public Act No. 05-159), Delaware (Del. Code 4176C), Maryland (Md. Code Ann. 21-1124.2), New Jersey (N.J.S.A. 30:4-97.3), New York (Vehicle and Traffic Law Section 1225c), Oregon (ORS 811.507), Utah (UT Code 41-6a-1715), and Washington (RCW 46.61.667). Utah considers talking on a cell phone, without a hands-free device, to be an offense only if a driver is also committing some other moving violation (other than speeding).

- Nineteen states and the District of Columbia prohibit the use of a cell phone while operating a school bus;[4]
- Twenty-eight states and the District of Columbia prohibit novice drivers—usually defined as drivers under 18 years old—from using cell phones when operating vehicles;[5] and,
- Thirty states and the District of Columbia ban drivers from text messaging.[6]

We include, as Attachment A, a table from the Institute for Highway Safety that presents an overview of states' cell phone laws. Also in Attachment A, we include a *question and answer* sheet from the IIHS on cell phones and driving. It provides a summary of the myriad issues surrounding this topic. Arthur Goodwin, senior research associate at the Highway Safety Research Center, contends that laws banning or limiting cell phone use while operating a motor vehicle are of vital importance and are gaining momentum nationwide.[7] He likened the situation to when seat belt laws came to the fore in the United States: it took some time to educate the public, and for people to change their habits, but eventually most did. Mr. Goodwin believes this will be the case with cell phone laws—that it will take time and continued efforts for these laws to become solidified in our national consciousness.

All the experts with whom we spoke, and the literature we reviewed, support states enacting laws restricting the use of cell phones while driving.[8] While difficult to enforce, such legislation does highlight the reality that the behavior is unsafe.

We hope you find this information to be useful. Please let us know if you have questions or need additional information.

19

[4] School bus drivers in the following states are banned from using cell phones while driving: Arizona, Arkansas, California, Connecticut, Delaware, Georgia, Illinois, Kentucky, Louisiana, Maryland, Massachusetts, Minnesota, New Jersey, North Carolina, Oklahoma, Rhode Island, Tennessee, Texas, and Virginia.

[5] Novice drivers are banned from using cell phones while driving in the following states: Alabama, Arkansas, California, Colorado, Connecticut, Delaware, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Minnesota, Nebraska, New Jersey, North Carolina, Oregon, Rhode Island, Tennessee, Texas, Vermont, Virginia, Washington, and West Virginia.

[6] A ban on texting while driving is in place in the following states: Alaska, Arkansas, California, Colorado, Delaware, Connecticut, Georgia, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Nebraska, New Hampshire, New Jersey, New York, North Carolina, Oregon, Rhode Island, Tennessee, Utah, Vermont, Virginia, Washington, Wisconsin, and Wyoming.

[7] The Highway Safety Research Center's stated mission is to improve the safety, security, access and efficiency of all surface transportation modes through a balanced, interdisciplinary program of research, evaluation and information dissemination (*http://www.hsrc.unc.edu/index.cfm*). Arthur Goodwin can be reached at (919) 843-5038.

[8] In addition to Mr. Goodwin, we also contacted Anne McCartt, Senior Vice President of the Insurance Institute for Highway Safety (703) 247-1534, and Dr. David Strayer of the University of Utah, who has studied distracted drivers issues for more than ten years (801) 581-5037.

Attachment A

Cellphone Laws, Insurance Institute for Highway Safety, January 2011

Q&As: Cellphones and Driving, Insurance Institute for Highway Safety, January 2011

Cellphone laws

January 2011

A jurisdiction-wide ban on driving while talking on a hand-held cellphone is in place in 9 states (California, Connecticut, Delaware, Maryland, New Jersey, New York, Oregon, Utah, and Washington) and the District of Columbia. Utah has named the offense careless driving. Under the Utah law, no one commits an offense when speaking on a cellphone unless they are also committing some other moving violation other than speeding.

Local jurisdictions may or may not need specific state statutory authority to ban cellphones or text messaging. Several of the many localities that have enacted restrictions on cellphone use include: Oahu, HI; Chicago, IL; Brookline, MA; Detroit, MI; Santa Fe, NM; Brooklyn, North Olmstead, and Walton Hills, OH; Conshohocken, Lebanon, and West Conshohocken, PA; Waupaca County, WI; and Cheyenne, WY.

The use of all cellphones while driving a school bus is prohibited in 19 states and the District of Columbia.

The use of all cellphones by novice drivers is restricted in 28 states and the District of Columbia.

Text messaging is banned for all drivers in 30 states and the District of Columbia. In addition, novice drivers are banned from texting in 8 states (Alabama, Indiana, Maine, Mississippi, Missouri, Oklahoma, Texas, and West Virginia) and school bus drivers are banned from text messaging in 2 states (Oklahoma and Texas).

The table below shows the states that have cellphone laws, whether they specifically ban text messaging, and whether they are enforced as primary or secondary laws. Under secondary laws, an officer must have some other reason to stop a vehicle before citing a driver for using a cellphone. Laws without this restriction are called primary.

Table Map: hand-held bans Map: young driver bans Map: bus driver bans Map: texting bans

Laws restricting cellphone use and texting

State	Hand-held ban	Young drivers all cellphone ban	Bus drivers all cellphone ban	Texting ban	Enforcement
Alabama	no	drivers age 16 and 17-year-old drivers who have held an intermediate license for fewer than 6 months	no	drivers age 16 and 17-year-old drivers who have held an intermediate license for fewer than 6 months	primary
Alaska	no	no	no	all drivers	primary
Arizona	no	no	school bus drivers	no	primary
Arkansas	drivers 18 or older but younger than 21	drivers younger than 18	school bus drivers	all drivers	primary: texting by all drivers and cellphone use by school bus drivers; secondary: cellphone use by young drivers[1]
California	all drivers	drivers younger than 18	school and transit bus drivers	all drivers	primary: hand held and texting laws; secondary: hands-free cellphone use by young drivers[1]
Colorado	no	drivers younger than 18	no	all drivers	primary
Connecticut	all drivers	drivers younger than 18	school bus drivers	all drivers	primary
Delaware	all drivers	learner's permit and intermediate license holders	school bus drivers	all drivers	primary
District of Columbia	all drivers	learner's permit holders	school bus drivers	all drivers	primary

Florida	no	no	no	no	not applicable
Georgia	no	drivers younger than 18	school bus drivers	all drivers	primary
Hawaii	no	no	no	no	not applicable
Idaho	no	no	no	no	not applicable
Illinois	drivers in construction and school speed zones	drivers younger than 19 and learner's permit holders younger than 19	school bus drivers	all drivers	primary
Indiana	no	drivers younger than 18	no	drivers younger than 18	primary
Iowa	no	learner's permit and intermediate license holders	no	all drivers	primary for learner's permit and intermediate license holders; secondary for texting
Kansas	no	learner's permit and intermediate license holders	no	all drivers	primary
Kentucky	no	drivers younger than 18	school bus drivers	all drivers	primary
Louisiana	with respect to novice drivers, see footnote[2]	all novice drivers, see footnote for detail[2]	school bus drivers	all drivers	primary[2]
Maine	no	learner's permit and intermediate license holders	no	learner's permit and intermediate license holders	primary
Maryland	all drivers	learner's permit and provisional license holders younger than 18	school bus drivers (hand-held ban)	all drivers	secondary; primary for texting
Massachusetts	no	drivers younger than 18	school bus drivers and passenger bus drivers	all drivers	primary
Michigan	no	no	no	all drivers	primary
Minnesota	no	learner's permit holders and provisional license holders during the first 12 months after licensing	school bus drivers	all drivers	primary
Mississippi	no	no	no	learner's permit and intermediate license holders	primary
Missouri	no	no	no	drivers 21 and younger	primary
Montana	no	no	no	no	not applicable
Nebraska	no	learner's permit and intermediate license holders younger than 18	no	all drivers	secondary
Nevada	no	no	no	no	not applicable
New Hampshire	no	no	no	all drivers	primary

New Jersey	all drivers	learner's permit and intermediate license holders	school bus drivers	all drivers	primary
New Mexico	no	no	no	no	not applicable
New York	all drivers	no	no	all drivers	primary; secondary for text messaging
North Carolina	no	drivers younger than 18	school bus drivers	all drivers	primary
North Dakota	no	no	no	no	not applicable
Ohio	no	no	no	no	not applicable
Oklahoma	learner's permit and intermediate license holders	no[3]	school bus drivers and public transit drivers	learner's permit holders, intermediate license holders, school bus drivers and public transit drivers	primary
Oregon	all drivers	drivers younger than 18	no	all drivers	primary
Pennsylvania	no	no	no	no	not applicable
Rhode Island	no	drivers younger than 18	school bus drivers	all drivers	primary
South Carolina	no	no	no	no	not applicable
South Dakota	no	no	no	no	not applicable
Tennessee	no	learner's permit and intermediate license holders	school bus drivers	all drivers	primary
Texas	drivers in school crossing zones	intermediate license holders for the first twelve months	bus drivers when a passenger 17 and younger is present	bus drivers when a passenger 17 and younger is present; intermediate license holders for first twelve months; drivers in school crossing zones	primary
Utah	all drivers	no	no	all drivers	primary for texting; secondary for talking on a hand-held cellphone[4]
Vermont	no	drivers younger than 18	no	all drivers	primary
Virginia	no	drivers younger than 18	school bus drivers	all drivers	secondary; primary for school bus drivers
Washington	all drivers	learner's permit and intermediate license holders	no	all drivers	primary
West Virginia	no	drivers younger than 18 who hold either a learner's permit or an intermediate license	no	drivers younger than 18 who hold either a learner's permit or an intermediate license	primary
Wisconsin	no	no	no	all drivers	primary
Wyoming	no	no	no	all drivers	primary

[1]The laws in Arkansas and California prohibit police from stopping a vehicle to determine if a driver is in compliance with the law. Clearly, that language prohibits the use of checkpoints to enforce the law, but it has been interpreted as the functional equivalent of secondary provisions that typically state the officer may not stop someone suspected of a violation unless there is other, independent, cause for a stop.

[2]In Louisiana, all learner's permit holders, irrespective of age, and all intermediate license holders are prohibited from driving while using a hand-held cellphone and all drivers younger than 18 are prohibited from using any cellphone. Effective April 1, 2010 all drivers, irrespective of age, issued a first driver's license will be prohibited from using a cellphone for one year. The cellphone ban is secondary for novice drivers age 18 and older.

[3]In Oklahoma, learner's permit and intermediate license holders are banned from using a hand-held electronic device while operating a motor vehicle for non-life-threatening emergency purposes.

[4]Utah's law defines careless driving as committing a moving violation (other than speeding) while distracted by use of a hand-held cellphone or other activities not related to driving.

1005 N. Glebe Road, Suite 800, Arlington, VA 22201 USA | tel 703/247-1500 | fax 703/247-1588

Q&As: Cellphones, texting, and driving

January 2011

More information on cellphones

Hide all answers

1 | How many people use cellphones?

Cellphone use in the United States has grown quickly during the past decade. There were about 293 million wireless cellphone subscribers as of June 2010, according to CTIA – The Wireless Association, an industry trade group.[1] That's up 51 percent from 194 million in June 2005 and 3 times the 97 million wireless subscribers in June 2000. Minutes of use have surged to about 2.3 trillion in June 2010 from 195 billion in June 2000.

2 | Do drivers frequently use phones behind the wheel?

Yes, though it's hard to determine accurately just how many drivers use phones. Combining observational and self-reported data on phone use, the federal government estimated that drivers using phones nearly tripled during 2000-08, from 4 to 11 percent, and then declined to 9 percent in 2009. Federal observational data indicate that 5 percent of drivers in 2009 were talking on hand-held phones at any moment during the day. This means about 672,000 passenger vehicles on the road at any moment during the day were driven by people talking on hand-held phones.[2]

A 2009 Institute telephone survey of 1,219 drivers 18 and older indicates phone use may be somewhat lower than government estimates. Drivers on average reported spending about an hour in the car each day, with about 4 minutes of that time on the phone. This translates into roughly 7 percent of time behind the wheel on the phone.[3] The discrepancy between the two estimates may be a result of drivers in the Institute survey understating how much phoning while driving they do because the practice has negative connotations. It also could reflect different methodologies. Government researchers observed hand-held phone use among drivers waiting at intersections during the daytime, then adjusted this for self-reported hands-free use. The Institute's survey estimates self-reported driver phone use on all kinds of roads during all hours.

3 | Who is most likely to talk on a cellphone while driving?

Young drivers ages 16-24 are more likely than other drivers to talk on hand-held cellphones according to daytime observational surveys of drivers the federal government conducted nationwide in 2009. Eight percent of drivers ages 16-24 were observed talking on hand-held phones, compared with 5 percent of those ages 25-69 and 1 percent of drivers 70 and older.[2] In the Institute's 2009 survey of drivers' self-reported phone use, people younger than 30 spent 16 percent of driving time on the phone, compared with 7 percent for drivers 30-59 years old, and just 2.5 percent for drivers 60 and older.[4]

Men in the Institute's survey reported spending slightly more time on the phone than women (7 percent versus 6 percent). This differs from the government's and other observations that female drivers use cellphones more. Drivers reported using phones more on weekdays and during afternoons and evenings. Use rates were 8 percent during these times.[3] This is in line with government observations that use is higher on weekdays.[2]

4 | Does using a cellphone while driving increase crash risk?

Yes. Two controlled studies link talking on a cellphone directly to increased crash risk. A 2005 Institute study of drivers in Western Australia found cellphone users four times as likely to get into crashes serious enough to injure themselves.[5] The study used cellphone billing records to verify phone use of crash-involved drivers. Increased risk was similar for males and females, drivers younger than 30 and those 30 and older, and hands-free and hand-held phones. The findings were consistent with 1997 research that showed phone use among Canadian drivers was associated with a fourfold increase in the risk of a property damage crash. The Canadian study also used cellphone billing records to verify phone use of drivers.[6]

5 | How many crashes have been caused by drivers using cellphones?

The federal government estimates that in 2009, 5,474 people were killed and an additional 448,000 were injured in motor vehicle crashes that were reported by police to have involved distracted driving. The government estimates that 18 percent of these deaths and 5 percent of these injuries involved cellphones.[7] However, these estimates are imprecise and likely underestimate distraction's role in crashes, as many police reports don't have information on distracting events. Police crash reports aren't a reliable way to count cellphone-related collisions because drivers often don't volunteer that they were on the phone.

It is possible to estimate the expected number of crashes linked to phoning while driving. An Institute analysis suggests this practice could account for 22 percent of all crashes, or about 1.3 million in 2008, based on how much phoning while driving motorists admitted to researchers and the estimated risk of driver phone use.[3] However, there is a disconnect between estimated crashes and real-world data, which indicate that crashes have been holding steady in recent years, even as cellphone use in general and driver use of phones in particular have proliferated.

About 5.5 million police-reported motor vehicle crashes occurred during 2009, the latest year for which federal data are available. This count doesn't differ much from the approximately 6 million crashes recorded annually during the early 1990s, when cellphones started getting popular, and it is lower than the 6.4 million crashes in 2000, when federal researchers began documenting the increase in phone use while driving.

An increase in cellphone-related crashes isn't showing up in insurance claims either. An analysis by the Highway Loss Data Institute indicates that the frequency of insurance claims for crash damage filed under collision coverage during 1998-2008 hasn't increased, even though driver phone use has escalated.[8]

A 2006 Virginia Tech Transportation Institute study used video cameras to monitor drivers in about 100 vehicles for about a year. Four percent of crashes or near-crashes were attributable to talking on a cellphone, researchers estimated.[9]

6 | Are hands-free cellphones safer?

No, at least not after the conversation begins. Two studies of crashes using cellphone billing records to verify phone use found about a fourfold increase in crash risk with conversing on both hands-free and hand-held phones.[5,6] The studies were unable to estimate crash risk from different types of hands-free devices. They also were unable to determine whether there was any benefit associated with hands-free devices while placing the call. Experimental research using driving simulators indicates that phone conversation tasks, whether using hand-held or hands-free devices, affect some measures of driving performance.[10,11] Hands-free phones may eliminate some of the physical distraction of handling phones, but the cognitive distraction from phone conversations remains.

7 | How does cellphone use affect driving performance?

An Institute review of more than 120 cellphone studies, about half of which were experimental studies using driving simulators or vehicles instrumented with video cameras, sensors, and other equipment, found that nearly all reported that some measures of driver performance were affected by the cognitive distractions associated with cellphone tasks.[11] Phone conversation tasks typically increased reaction times and travel speeds and increased lane deviations and steering wheel movements. Statistical analyses that aggregated the results of 33 studies and 23 studies, respectively, reported similar findings.[10,12] Some studies have found that older drivers' performance is more affected by cellphone tasks, particularly their reaction time. Few studies included drivers younger than 18, and evidence is mixed on the effects of phone use for teenage drivers compared with adult drivers. Findings also are mixed on whether driving performance while talking on a cellphone improves with practice. Some simulator studies suggest that the negative impact of phone use on driving performance may lessen with experience.[13,14] Other simulator research has found no change in performance with practice.[15]

Using functional magnetic resonance imaging, researchers at Carnegie Mellon University found a 37 percent reduction in brain activity associated with driving when research subjects listened via a headset to spoken sentences that they judged as true or false while steering in a driving simulator. Researchers concluded that listening and processing information from a phone conversation can draw mental

resources away from driving, worsening driving performance, even when drivers are not holding or dialing a phone.[16]

Further evidence comes from a few studies of small samples of people observed during their everyday driving. One study included drivers of 100 vehicles instrumented with video cameras and other monitoring technologies. Only a few serious crashes occurred, but researchers calculated the odds of being in a near-crash or crash were 2.8 times higher when dialing a hand-held phone than when phones weren't being used. The odds of a near-crash or crash were 1.3 times higher when talking on a hand-held phone, although this was not statistically significant. But because drivers spend more time talking on a hand-held phone than dialing, the percentage of crashes and near-crashes estimated to be attributable to talking and dialing on hand-held phones were both about 4 percent.[9]

8 | Do bans on hand-held phones work to reduce driver phone use?

Institute research has documented that all-driver bans on hand-held phoning can have large and lasting effects on phone use. In November 2001, New York became the first state to implement a universal ban on hand-held cellphones. Observed driver hand-held cellphone use declined by an estimated 47 percent immediately after the ban. Use then began going back up, but when measured more than 7 years after the ban, use was 24 percent lower than would have been expected without the ban. Soon after a ban was passed in the District of Columbia in 2004, observed driver hand-held phone use dropped by 41 percent. Nearly five years after the ban, the rate of phone use was 43 percent lower than would have been expected without a ban. Connecticut's ban took effect in 2005. Observed hand-held phone use declined an estimated 76 percent immediately after a ban; more than 3 years later, use was 65 percent lower than would be expected without a ban.[17]

In the Institute's telephone survey of cellphone use, drivers in states with hand-held bans were less likely to say they talk on phones while driving. Forty-four percent of drivers in states with bans reported they don't use phones when driving, compared with 30 percent in states without such laws. The percent of drivers who talk on phones and always talk hands-free was 22 in states with all-driver bans on hand-held phones, and 13 in states without all-driver bans.[4]

9 | Do hand-held phone bans reduce crashes?

There is no evidence so far that banning hand-held phone use reduces crashes, even though Institute research demonstrates that bans on hand-held phoning while driving can have big and long-term effects in curbing phone use. A 2009 analysis by the Highway Loss Data Institute found that hand-held bans had no effect on insurance claims. Researchers compared claims for crash damage in 4 jurisdictions before and after hand-held phone use bans, finding steady claim rates before and after laws went into effect.[8]

Many drivers still use hand-held phones where use is banned, and others may simply switch to hands-free phones. Given that crash risk increases substantially with drivers' use of either hand-held or hands-free phones, bans on hand-held cellphones won't eliminate the problem entirely. Laws prohibiting hands-free phones are difficult to enforce, plus drivers may be unfamiliar with restrictions in their state. In the Institute telephone survey, 18 percent of drivers in states with a universal ban on hand-held phone use either believed there was no law or were unsure. The proportion was even higher (48 percent) among drivers in states with a universal texting ban. Many drivers don't believe police pay much attention to them. Only 29 percent of drivers in states with universal hand-held phone bans who knew about the bans and 22 percent of drivers in states with universal texting bans who were aware of the restrictions felt they were strongly enforced.[4]

10 | How common are bans on hand-held cellphones and texting?

Bans are widespread in other countries and are becoming more common in the U.S. Nine states (California, Connecticut, Delaware, Maryland, New Jersey, New York, Oregon, Utah, and Washington) and the District of Columbia have enacted laws that ban drivers of all ages from using hand-held cellphones.

More common in the US are laws that restrict young drivers from using any type of cellphone. Teenage drivers in 28 states and the District of Columbia have such laws. School bus drivers in 19 states and the District of Columbia are restricted from using all cellphones while driving a bus.

In Australia, drivers in Victoria and Tasmania are banned from using all phones, except ones secured in a commercially designed holder fixed to the vehicle that can be operated without touching any part of the phone.

Text messaging is banned for all drivers in 30 states and the District of Columbia. In addition, novice drivers are banned from texting in 8 states (Alabama, Indiana, Maine, Mississippi, Missouri, Oklahoma, Texas, and West Virginia), and school bus drivers are banned from text messaging in 2 states (Oklahoma and Texas).

Cellphone laws in the US

11 | Why do more laws cover only teenage drivers?

Cellphone bans for young drivers are becoming more common amid concerns about the role distractions play in teenagers' elevated crash risk. Distractions of any type are a common factor in crashes of newly licensed 16-year-old drivers.[18] Some research also shows teenage drivers tend to use cellphones and other emerging technologies more than adult drivers.[19] States increasingly have graduated licensing laws that place restrictions on newly licensed drivers, e.g., limiting nighttime driving and the number of passengers a novice driver can carry. Cellphone bans are being added to those restrictions.

See Q&A: Teenagers — graduated driver licensing

More about the licensing law in your state, or any state

12 | Do teenagers comply with cellphone bans?

Young drivers often ignore cellphone restrictions, according to an Institute study of North Carolina's cellphone ban for young beginning drivers. The state bans the use of any telecommunications device by drivers younger than 18 under its graduated licensing system. Observed cellphone use by teenagers leaving high schools in the afternoon changed little from 1-2 months before to 5 months after the restriction took effect on Dec. 1, 2006.[20] About 11 percent of teenage drivers were seen using phones before the law. That percentage rose slightly to 12 percent in the postlaw survey. Cellphone use remained steady at about 13 percent at comparison sites in South Carolina, which doesn't restrict teenage drivers' phone use. When observed postlaw, less than 1 percent of teenage drivers in North Carolina were using hands-free phones. About 2 percent were observed dialing or texting and about 9 percent were holding a phone to their ear.

The study coupled driver observations with telephone surveys of North Carolina parents and their teenagers. In postlaw surveys, about two-thirds of teenagers said they knew about their state's law, compared with 39 percent of parents. Three-quarters of teenagers and 95 percent of parents said they approved of the law. The proportion of teenagers who reported using phones while driving declined somewhat following the law. However, of those who owned a phone and admitted to ever talking on the phone while driving, about half admitted they used their phones, if they had driven, on the day prior to the interview. There was no evidence of focused enforcement or publicity of the law. Only 22 percent of teenagers and 13 percent of parents believed the ban was being enforced fairly often or a lot.[20]

13 | Is cellphone use more distracting to drivers than other tasks?

Evidence is mixed. For example, some experimental studies found that phone conversations are more disruptive than conversations with passengers or adjusting a radio.[11] However, two statistical analyses combining the results of multiple experimental studies found similar decrements in reaction time for conversation tasks with passengers and with hand-held or hands-free phones.[10,12] Two studies reported that talking on cellphones or having a 0.08 percent blood alcohol concentration (BAC) — the legal threshold for impairment — has a comparable effect on some simulated driving tasks.[21,22] However, the risks associated with alcohol impairment accumulate over the entire duration of a trip, whereas the risks of cellphone use generally apply for only a portion of a trip. In addition, crash risk increases substantially at very high BACs, and the implications of the experimental studies for drivers in their own vehicles is unknown.

14 | Is texting while driving a problem?

Texting in general is on the increase. Annualized text messages soared to about 1.8 trillion in June 2010 from 57 billion in June 2005.[1] Many people report that they text while driving. A 2009 Institute survey found that 13 percent of drivers of all ages have texted while driving, and this jumps to 43 percent among 18-24-year-old drivers.[4] Similar results were found in other studies.[23,24]

There hasn't been a lot of research on the safety effects of texting and driving, but three studies of young drivers using driving simulators all found that receiving, and especially sending, text messages impeded drivers' reaction times and lane-keeping ability.[25,26,27] In a study involving large trucks instrumented with video cameras and other monitoring technology, the odds of a traffic conflict, lane drift, near-crash, or crash were 23 times higher when a truck driver was texting. A limitation is that less than 1 percent of the incidents involved crashes; most were lane drifts or other driver errors. It's unknown how such incidents relate to actual crashes. It also is unclear whether the results generalize to passenger vehicle drivers.[28]

15 | Do drivers comply with text messaging bans?

So far it appears that drivers, especially young adults, largely shrug off texting bans. An Institute study found that among 18-24 year-olds — the group most likely to text — 45 percent reported texting while driving in states that bar the practice, just shy of the 48 percent of drivers who reported texting in states without bans.[4] Among drivers 25-29, 40 percent reported texting in states with bans, compared with 55 percent in states without bans.

Many drivers are unclear about the laws in their state. Forty-eight percent of drivers in states with universal texting bans believed there was no law or were unsure. Plus, only 22 percent of drivers who were aware of the restrictions felt they were strongly enforced.[4]

16 | Do bans on driver text messaging reduce crashes?

Not according to research by the Highway Loss Data Institute. A 2010 study examined insurance claims filed for damage to vehicles before and after driver texting bans were enacted in four states. There was no reduction in claim rates relative to comparison states. Rather, there was a significant increase of 7-9 percent in the frequency of claims in 3 of the 4 study states. Increases in the frequency of claims also were found for rated drivers 25 and younger in these 3 states.[29]

17 | Can technology be used to prevent crashes caused by distracted driving?

Automakers are rolling out crash avoidance systems that warn drivers when they are not paying attention. Some systems may intervene if the system judges that a crash is imminent. Systems like lane -departure warning and forward-collision warning promise to prevent many kinds of distracted driving crashes, not just those that result from cellphone use (see *Status Report*, April 17, 2008). But this isn't a quick fix. Most new vehicles don't have crash avoidance features, and it will take some time before the systems are in wide use as newer vehicles supplant older ones. Plus, the effects of these technologies on real-world crashes have not yet been established.

References

[1]CTIA – The Wireless Association. 2010. CTIA's semi-annual wireless industry survey results, June 1985-June 2010. Washington, DC. Accessed at http://www.ctia.org/advocacy/research/index.cfm/AID/10323

[2]National Highway Traffic Safety Administration. 2010. Driver electronic device use in 2009. Report no. DOT HS-811-372. Washington, DC: US Department of Transportation.

[3]Farmer, C.M.; Braitman, K.A,; and Lund, A.K. 2010. Cellphone use while driving and attributable crash risk. Arlington, VA: Insurance Institute for Highway Safety. February 2010.

[4]Braitman, K.A. and McCartt, A.T. 2010. National reported patterns of driver cellphone use. Arlington, VA: Insurance Institute for Highway Safety.

[5]McEvoy, S.P.; Stevenson, M.R.; McCartt, A.T.; Woodward, M.; Haworth, C.; Palamara, P.; and Cercarelli, R. 2005. Role of mobile phones in motor vehicle crashes resulting in hospital attendance: a case-crossover study *British Medical Journal* 331 (7514):428

[6]Redelmeier, D.A. and Tibshirani, R.J. 1997. Association between cellular-telephone calls and motor vehicle collisions. *The New England Journal of Medicine* 336:453-58.

[7]National Highway Traffic Safety Administration. 2010. Distracted Driving 2009. Report no. DOT HS-811-379. Washington, DC: US Department of Transportation.

[8]Highway Loss Data Institute. 2009. Hand-held cellphone laws and collision claim frequencies. *HLDI Bulletin* 26(17). Arlington, VA.

[9]Klauer, S.G.; Dingus, T.A.; Neale, V.L.; Sudweeks, J.D.; and Ramsey, D.J. 2006. The impact of driver inattention on near-crash/crash risk: an analysis using the 100-car naturalistic driving study data. Report no. DOT HS-810-594. Washington, DC: National Highway Traffic Safety Administration.

[10]Caird, J.K.; Willness, C.R.; Steel, P.; and Scialfa, C. 2008. A meta-analysis of the effects of cell phones on driver performance. *Accident Analysis and Prevention* 40:1282-93.

[11]McCartt, A.T.; Hellinga, L.A.; and Braitman, K.A., 2006. Cell phones and driving: review of research. *Traffic Injury Prevention* 7:89-106.

[12]Horrey, W.J. and Wickens, C.D. 2006. Examining the impact of cell phone conversations on driving using meta-analytic techniques. *Human Factors* 48:196-205.

[13]Shinar D.; Tractinsky, N.; and Compton, R. 2002. Effects of practice with auditory distraction in simulated driving. *Transportation Research Board 81st Annual Meeting Compendium of Papers* (CD-ROM). Washington, DC: Transportation Research Board.

[14]Shinar, D.; Tractinsky, N.; and Compton, R. 2005. Effects of practice, age, and task demands on interference from a phone task while driving. *Accident Analysis and Prevention* 37:315-26.

[15]Cooper, J.M. and Strayer, D.L. 2007. Do driving impairments from concurrent cell-phone use diminish with practice? *Proceedings of the Human Factors and Ergonomics Society 51st Annual Meeting*. Santa Monica, CA: Human Factors and Ergonomics Society.

[16]Just, M.A.; Keller, T.A.; and Cynkar, J. 2008. A decrease in brain activation with driving when listening to someone speak. *Brain Research* 1205:70-80.

[17]McCartt, A.T.; Hellinga, L.A.; Strouse, L.M.; and Farmer, C.M. 2009. Long-term effects of hand-held cellphone laws on driver hand-held cellphone use. *Traffic Injury Prevention* 11:133-41.

[18]Braitman, K.A.; Kirley, B.B.; McCartt, A.T.; and Chaudhary, N.K. 2008. Crashes of novice teenage drivers: characteristics and contributing factors. *Journal of Safety Research* 39:47-54.

[19]Lee, J.D. 2007. Technology and teen drivers. *Journal of Safety Research* 38:203-13.

[20]Foss, R.D.; Goodwin, A.H.; McCartt, A.T.; and Hellinga, L.A. 2009. Short-term effects of a teenager driver cell phone restriction. *Accident Analysis and Prevention* 41:419-424.

[21]Burnes, P.C.; Parkes, A.; Burton, S.; and Smith, R.K. 2002. How dangerous is driving with a mobile phone? Benchmarking the impairment to alcohol. TRL Report 547. Berkshire, United Kingdom: Transport Research Laboratory.

[22]Strayer, D.L.; Drews, F.A.; and Crouch, D.J. 2003. Fatal distraction? A comparison of the cell-phone driver and the drunk driver, *Proceedings of the Second International Driving Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design*, 25-30. Iowa City, IA: University of Iowa Public Policy Center.

[23]Nationwide Insurance. 2008. Driving while distracted, public relations research. Columbus, OH: Nationwide Mutual Insurance Company.

[24]Insurance Research Council. 2010. Public Attitude Monitor 2010: Texting while driving. Malvern, PA: Insurance Research Council.

[25]Hosking, S.; Young, K.; and Regan, M. 2006. The effects of text messaging on young novice driver performance. Monash University Accident Research Center. Report 246. Monash, Australia: Monash University.

[26]Reed, N. and Robbins, R. 2008. The effect of text messaging on driver behavior: a simulator study. Published report PPR 367. Berkshire, United Kingdom: Transport Research Laboratory.

[27]Drews, F.A.; Yazdani, H.; Godfrey, C.N.; Cooper, J.M.; and Strayer, D.L. 2009. Text messaging during simulated driving. *Human Factors* 51:762-70.

[28]Olson, R.L., Hanowski, R.J.; Hickman, J.S.; and Bocanegra, J. 2009. Driver distraction in commercial vehicle operations. Report No. FMCSA-RRR-09-242. Washington, DC: Federal Motor Carrier Safety Administration.

[29]Highway Loss Data Institute. 2010. Texting laws and collision claim frequencies. *HLDI Bulletin* 27(11). Arlington, VA.

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National Highway Traffic Safety Administration
(http://www.nhtsa.gov/)

Research on distracted driving reveals some surprising facts:

- 20 percent of injury crashes in 2009 involved reports of distracted driving. (NHTSA).
- Of those killed in distracted-driving-related crashed, 995 involved reports of a cell phone as a distraction (18% of fatalities in distraction-related crashes). (NHTSA)
- In 2009, 5,474 people were killed in U.S. roadways and an estimated additional 448,000 were injured in motor vehicle crashes that were reported to have involved distracted driving. (FARS and GES)
- The age group with the greatest proportion of distracted drivers was the under-20 age group – 16 percent of all drivers younger than 20 involved in fatal crashes were reported to have been distracted while driving. (NHTSA)
- Using a cell phone use while driving, whether it's hand-held or hands-free, delays a driver's reactions as much as having a blood alcohol concentration at the legal limit of .08 percent. (Source: University of Utah)

Highlights

Police-reported data from the Fatality Analysis Reporting System (FARS) and the National Automotive Sampling show that:

- In 2009, there were 30,797 fatal crashes in the United States, which involved 45,230 drivers. In those crashes 33,808 people died.
- In 2009, 5,474 people were killed in crashes involving driver distraction (16% of total fatalities).
- The proportion of fatalities reportedly associated with driver distraction increased from 10 percent in 2005 to 16 percent in 2009. During that time, fatal crashes with reported driver distraction also increased from 10 percent to 16 percent.
- The under-20 age group had the highest proportion of distracted drivers involved in fatal crashes (16%). The age group with the next greatest proportion of distracted drivers was the 20- to-29-year-old age group – 13 percent of all 20-to-29-year-old drivers in fatal crashes were reported to have been distracted.
- Of those drivers reportedly distracted during a fatal crash, the 30-to-39-year-old drivers were the group with the greatest proportion distracted by cell phones. Cell phone distraction was reported for 24 percent of the 30-to-39-year-old distracted drivers in fatal crashes.
- An estimated 20 percent of 1,517,000 injury crashes were reported to have involved distracted driving in 2009.

The National Motor Vehicle Crash Causation Survey (NMVCCS) is a nationally representative survey specifically focused toward documenting events and conditions leading up to crashes.

- NMVCCS captures distraction as an associated factor to the crash and/or as the critical reason that made the crash imminent. Driver distraction was coded as the critical reason in 18 percent of the crashes. Data describing the specifics of the distraction — for example adjusting the radio or eating — are included in this data set.

Data Sources
The following NHTSA data sources were used in the research:

- Fatality Analysis Reporting System (FARS)
- National Automotive Sampling System (NASS) General Estimates System (GES)
- National Motor Vehicle Crash Causation Survey (NMVCCS)
- The 100-Car Naturalistic Driving Study
- National Occupant Protection Use Survey (NOPUS) of Driver Electronic Use
- Motor Vehicle Occupant Safety Survey (MVOSS)

Alaska 2010 Highway Safety Phone Survey

- **An Alaskan View of:**
  - Drivers' attitudes,
  - Awareness of enforcement and media and
  - Self-reported driving behavior

Prepared for the Alaska Highway Safety Office
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August, 2010

Executive Summary:
As reported by Alaskan Drivers:

- **One in four** have driven within two hours of drinking an alcoholic drink in the past 60 days.
- Nearly **70%** believe that **the court system is somewhat to very tough on enforcing drunk driving laws.**
- Almost **half** believe that chances of **getting arrested for drinking and driving** are at least **very likely.**
- **91% always buckle up.**
- **41%** think it is **unlikely** they'll get a **ticket for not wearing a seatbelt.**
- **49% rarely or never** drive over **35mph in a 30 mph** zone.
- **81% rarely or never** drive over **70 mph in a 65** mph zone.
- **79%** of 4-8 years olds **always use booster seats.**
- **61% talk** on their **cell phone** while driving.
- **86% never text** while driving.
- **72%** usually **use headlights** when driving **in daylight.**

Introduction:
The Alaska Injury Prevention Center (AIPC) designed and implemented a phone survey, in compliance with the National Highway Traffic Safety Administration guidelines. A randomly selected representative sample of Alaska licensed drivers was asked a series of questions in the five-minute phone survey. The questions addressed driver attitudes, awareness of highway safety enforcement and communication activities and self-reported driving behavior. The questions addressed the following topics: seatbelt use, drinking and driving, headlight use, talking and texting while driving, speeding and booster seat use.

Methodology:
A five-minute telephone survey, was conducted in August, 2010. The survey included 40 questions, mostly closed-ended, introduction, screener, and demographics questions. Craciun Research Group (CRG) was contracted with to conduct the survey. AIPC provided CRG with questions, conducted analysis and wrote the report of survey findings. CRG reviewed the survey and made suggestions for changes; programmed the approved survey; prepared the four sample frames from CRG's database of Alaska residents, with quotas for age categories; conducted the survey, and provided the data to the client.

Total sample size for the survey was four hundred (n=400) Anchorage, Kenai/Soldotna, Mat-Su and Fairbanks and Juneau residents for a total margin of error of +/-5% with 95% confidence.

Analysis:

The analysis section is broken out into 6 sections. Each section addresses behaviors and potential motivational variables and demographic variables which might affect the behavior choices. Motivational variables include awareness of enforcement efforts and perceived likelihood of getting caught engaging in an illegal and unsafe behavior. Analysis was done utilizing PASW 18 (formerly know as SPSS.) Frequencies and crosstabs were the primary analytical tests used for this preliminary review of the data. Additional analysis will be conducted in the next few months to provide a broader vision of highway issues.

Drinking and Driving

Just over one in four (27%) persons of driving age reported driving a motor vehicle within 2 hours of consuming an alcoholic drink in the past sixty days. These persons are referred to as "drinking- drivers" throughout this report. Thirty-two percent of males and 21% of females reported at least one drinking-driving trip in the past 60 days. Within these groups, 8% of men and 4% of women have taken 4 or more drink-driving trips in the past 60 days. [1]

When examined by education, the percentage of the driving-age public who reported driving a motor vehicle within 2 hours of drinking any alcoholic beverages ranged from 22% - 26% for respondents with a GED to those with a 4-year degree. The percent jumped to 42% for those with a postgraduate degree.

Looking at type of vehicle driven revealed that drivers of cars, SUV's and trucks all had about a 30% chance of drinking and driving. Only 4% of van drivers reported having made at least one trip after drinking alcohol.

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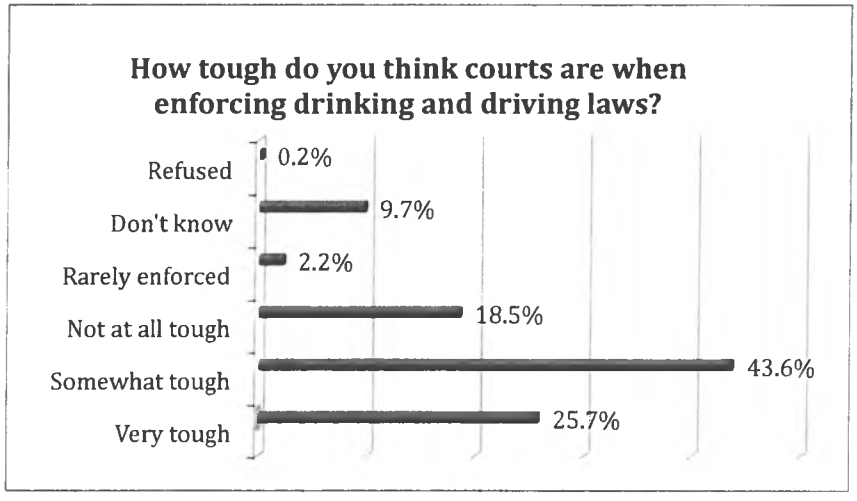
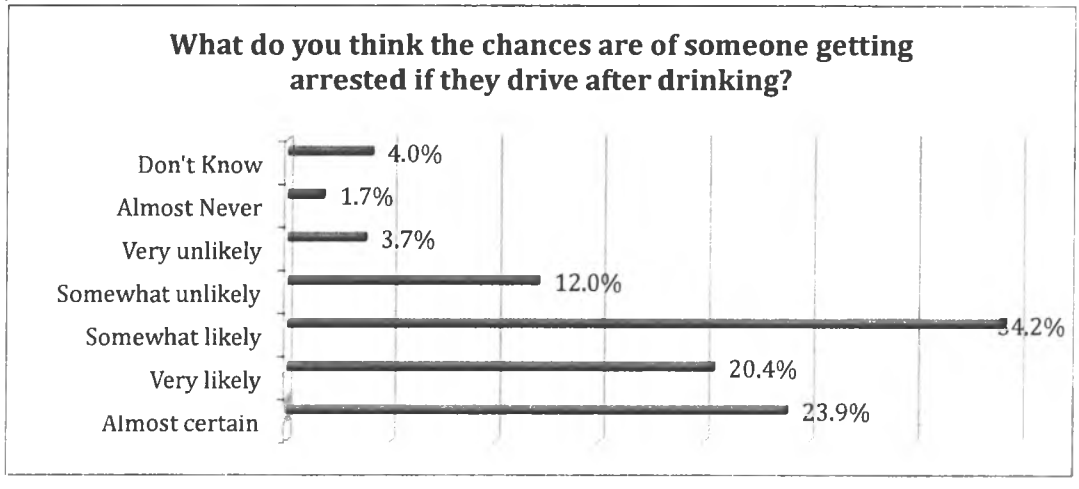
[1] Q.22 In the past 60 days, how many times have you driven a motor vehicle within 2 hours after drinking an alcoholic beverage? Never, Once, Two or three times, Four or five times, Many times, Some. I don't know how many, Refused



Participants were also asked how tough they thought courts were in enforcing drinking and driving laws.[2] Most answered that they thought courts were somewhat to very tough. (69.3%)



Participants were also asked how tough they thought courts were in enforcing drinking and driving laws.[3]

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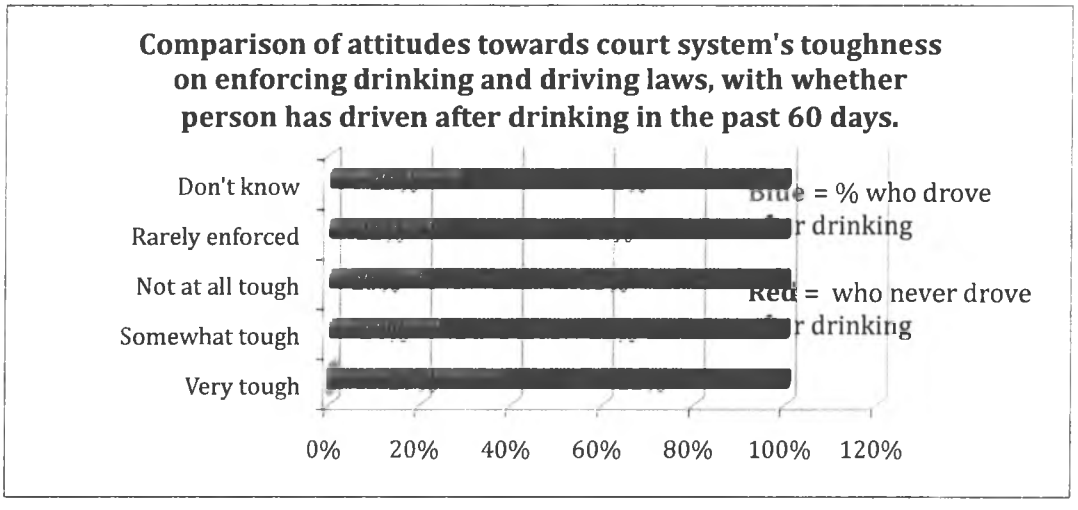
[2] Q.15 In your opinion, how tough do you think the courts are when enforcing drinking-and-driving laws?
Very tough, Somewhat tough, Not at all tough, Rarely enforced, Don't know/ Unsure, Refused

[3] Q.15 In your opinion, how tough do you think the courts are when enforcing drinking-and-driving laws?
Very tough, Somewhat tough, Not at all tough, Rarely enforced, Don't know/ Unsure, Refused

Twenty-three percent of the driving-age public believed that a driver who had too much to drink to drive safely was "almost certain" to be arrested by the police. Seventy-eight percent believe a person's chances are "Somewhat likely" or more that they will get arrested if they drive after drinking. Twenty-six percent believed that the courts are very tough when enforcing drinking and driving laws. While 70% believe that the courts are somewhat to very tough with enforcing these laws.



Of those who believe that the courts are very tough enforcing drinking and driving laws, 37% had driven after drinking in the last 60 days. Participants were asked whether they had "read, seen or heard anything about drunk-driving enforcement in Alaska."[4] Sixty-seven percent answered yes. Of those who self reported making many trips after drinking in the last 60 days, 82% were aware of drunk driving enforcement.

Seatbelt Use

In the 2010 seatbelt observation survey for Alaska, 86.7% or drivers and passengers were observed wearing a seatbelt. When asked: "How often do you use a seatbelt when you drive or ride in your personal vehicle" 91% answered "always" and 5% said "almost always."[5] Only 1.2% said never. Fifty-five percent said they had read, seen or heard about seatbelt enforcement in the past 60 days.[6] And 29% believed that a person would always or nearly always get a ticket for not using a seatbelt.[7] Forty-two percent answered that the chance was never or seldom.

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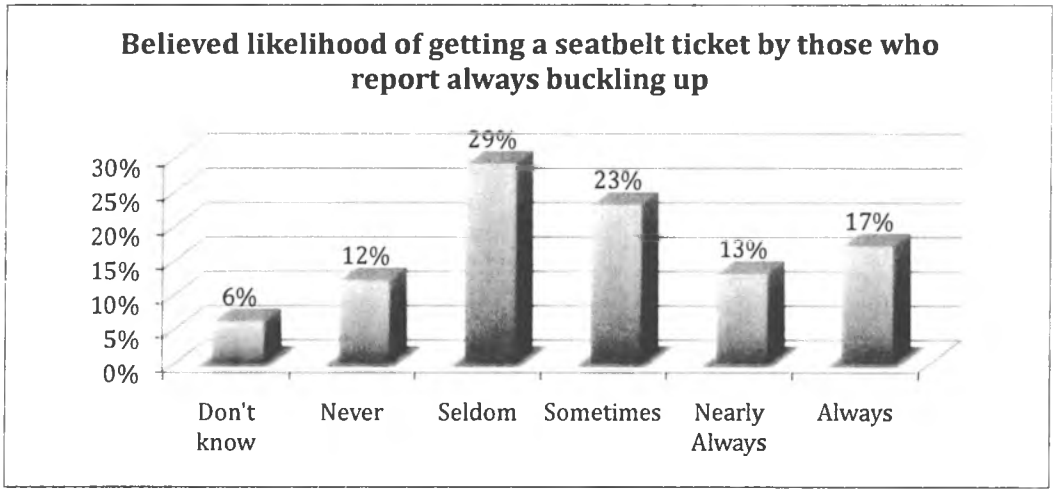
[4] Q.21 In the past 60 days, have you read, seen or heard anything about drunk-driving enforcement in Alaska? Yes, No, Don't know/ Unsure, Refused

[5] Q.11 How often do you use a seatbelt when you drive or ride in your personal vehicle? Always, Nearly always, Sometimes, Seldom, Never, Unsure, Refused

[6] Q.12 In the past 60 days, have you read, seen or heard anything about seat belt enforcement in Alaska? Yes, No, Don't know/ Unsure, Refused

[7] Q.13 What do you think the chance is for you to get a ticket if you do not wear your seat belt? Would you get one: Always, Nearly always, Sometimes, Seldom, Never, Don't know/ Unsure,Refused

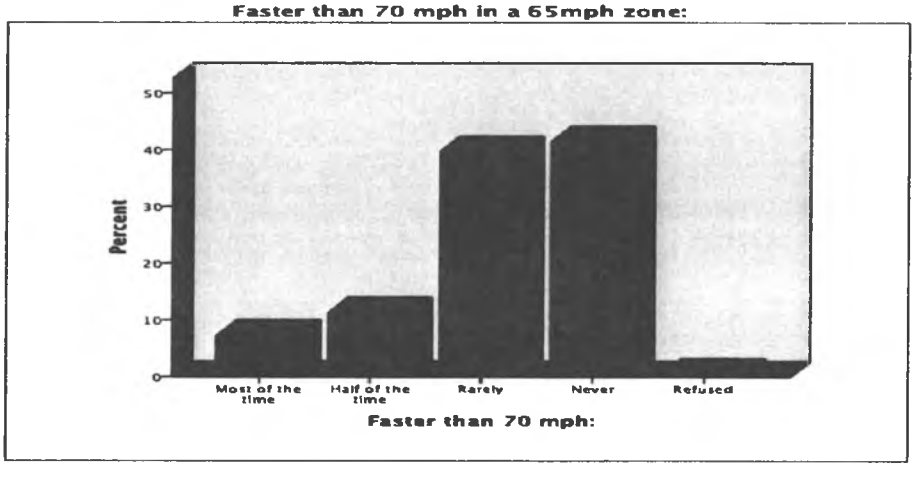
The degree of certainty of which a person would get a seatbelt ticket did not seem to be effected by awareness of seatbelt use enforcement. Sixty-four percent of those who thought they had no chance of getting a seatbelt ticket had heard about seatbelt enforcement in the last 60 days. Sixty percent of those who thought they would always get a ticket had also heard of the enforcement efforts.



For those who always wear a seatbelt, 12% felt that they would never get a ticket for not buckling up and 17 percent felt they would always get a ticket. Forty-one percent thought they would never or seldom get a ticket. While 30% thought they would always or nearly always get a ticket.

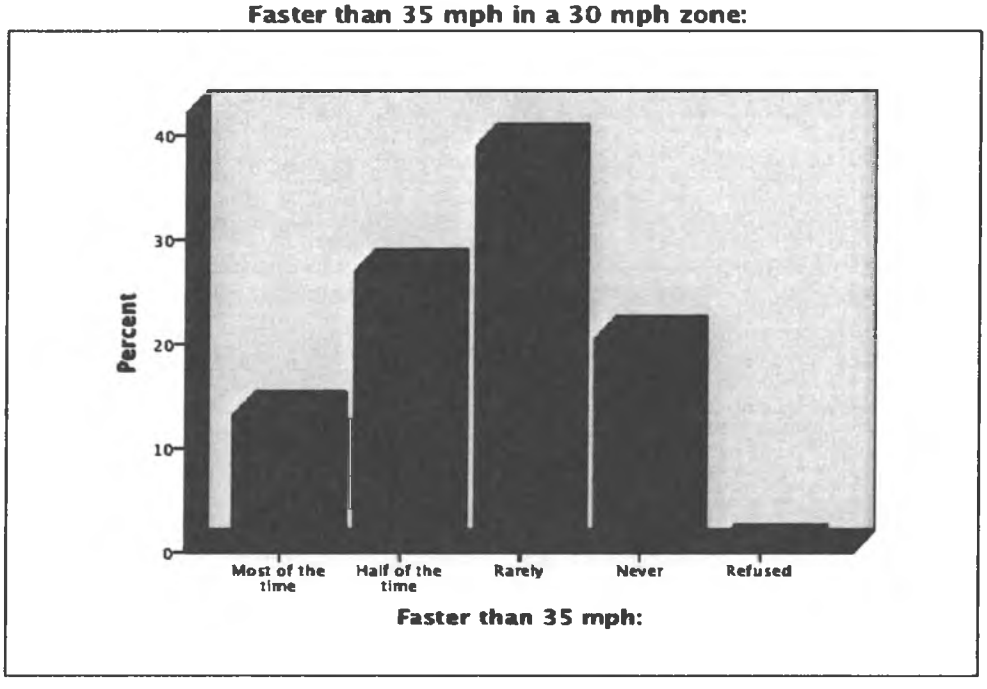
Speeding

Two scenarios were presented concerning speeding. The first was how often a driver goes more than 70 mph in a 65 mph zone.[8] And the second how often the driver goes



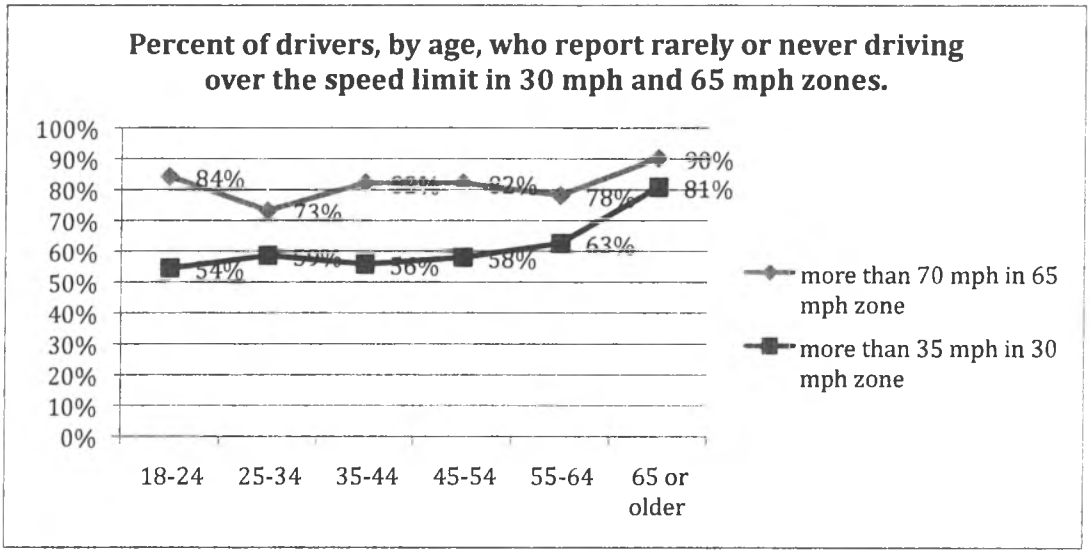
[8] Q.18 On a road with a speed limit of 65 mph, how often do you find yourself driving faster than 70 mph: Most of the time, Half of the time, Rarely, Never, Refused

faster than 35 mph in a 30 mph zone.[9] People report being more likely to speed in 30 mph areas than 65 mph areas. Eighty-one percent say they rarely or never go over 70 in a 65 area. However, 59% say they rarely or never drive more than 35 mph in a 30 mph zone.



Considering this further, gender makes a difference. Eighty percent of men and 82% of women report never or rarely driving over 70 in a 65 zone. While Sixty-three percent of men and 56% of women report rarely or never driving faster than 35 in a 30 mph zone.

[9] Q.17 On a local road with a speed limit of 30 mph, how often do you find yourself driving faster than 35 mph: Most of the time, Half of the time, Rarely, Never, Refused



Looking at the data by age group shows that there is an increase in the percent of drivers who drive close to the speed limit with an increase in age. But this doesn't really show until the 65-year and older group of drivers.

Cell Phones:

Ninety-three percent of respondents said that there is at least one cell phone in their households. Cell phones have become commonplace in and out of cars. This is the first time cell phone use and ownership questions were asked in an Alaska Highway Safety phone survey. The answers here will serve as baseline data.

Multiple questions were asked concerning cell phone use in cars. Questions included how often the driver talks on the phone, reads of sends texts, makes or answers calls, whether these happen more often on city or rural roads, and whether hands-free devices are used while driving.[10] Additionally, the 2010 Alaska NOPUS observational surveys collected data about observed cell phone usage rate for drivers. The statewide observed cell phone use rate was 5.1%. The observed usage rates by borough were:

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[10] Q.25 How often do you talk on a cell phone while driving your car? Almost every time you drive, Every two or three times, Sometimes, not often, Never, Don't know/ Unsure, Refused

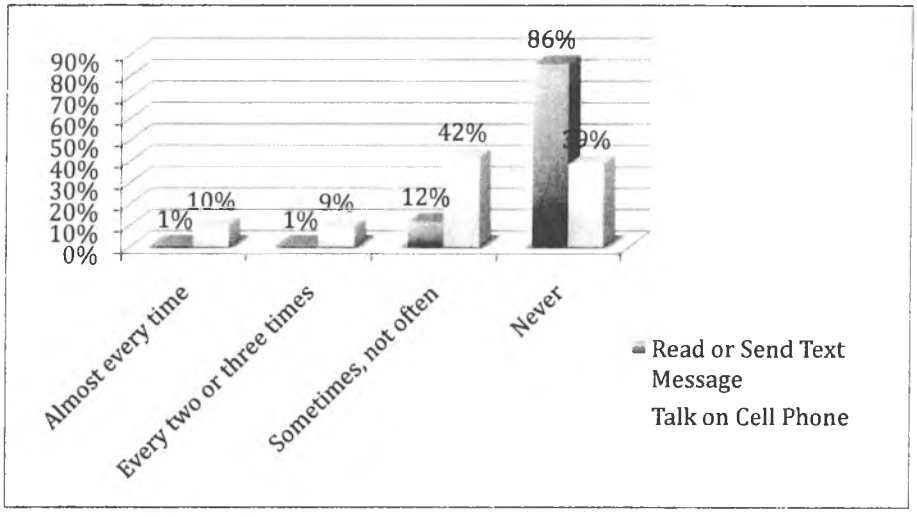
Q.26 How often do you read or send text messages while driving your car? Almost every time you drive, Every two or three times, Sometimes, not often, Never, Don't know/ Unsure, Refused

Q.27 Do you make calls from your car, answer them or both? Make calls, Answer them, Both, Refused

Q.28 Do you take or make calls when you are driving in a city or town or only on rural roads? In cities or towns, in rural areas, Both, Neither, Refused

Q.29 Do you have a "hands-free" cell phone arrangement in your vehicles? Yes, No, Not in every car I drive, Refused

MatSu 8.0%, Kenai/Soldotna 6.0%, Anchorage 5.0%, Fairbanks 4.9%, and Juneau 2.0%. These numbers do not include use where a hands-free device was in use.



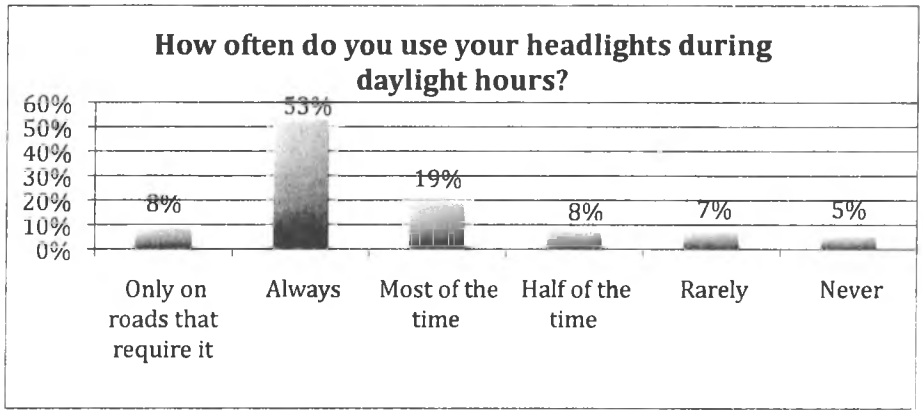
Most people (86%) report that they never read or send texts while driving. Two percent say they text at least every two or three times that they drive. While 19% of drivers talk on their cell phones at least every two or three times that they drive. And 42% say they talk on their phone some times but not often. Thirty-nine percent of drivers say they never talk on a cell phone while driving.

The next three questions were only asked of those who have used a cell phone while driving. Just over a third (36%) of cell phone using drivers have a hands-free device. Seventy-six percent of users have both made and received phone calls. Twenty-one percent have only answered calls. Sixty percent use cell phones in both rural and urban areas. Twelve percent use them only is urban areas, and 9% in only rural areas.

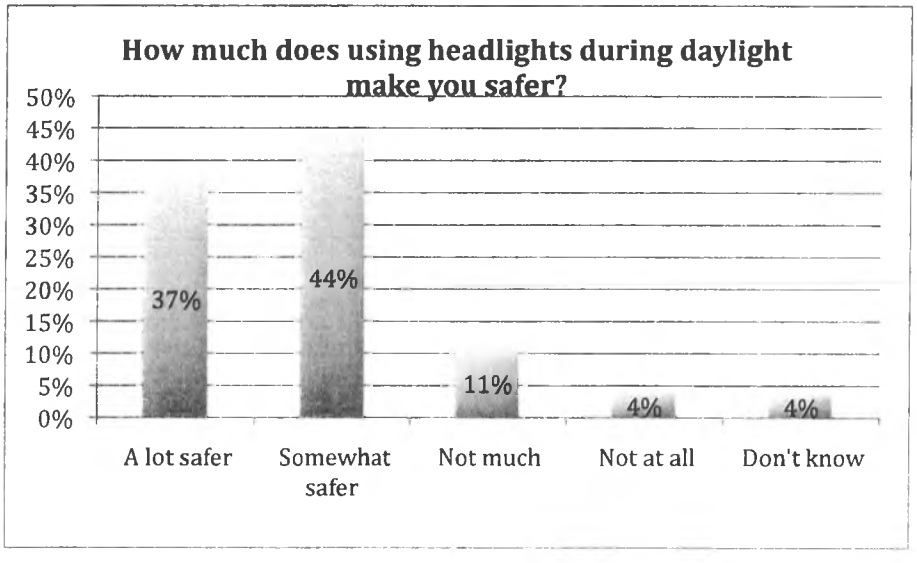
Headlights:

Headlight use was defined as a crash prevention strategy in the Alaska Strategic Highway Safety Plan. The survey asked two questions concerning headlight use in order to determine baseline behavior and attitudes.[11]

[11] Q.23 During daylight hours, would you say you use your headlights: Only on roads that require it, Always, Most of the time, Half of the time, Rarely, Never, Don't know/ Unsure, Refused
Q.24 Do you think using headlights during daylight makes you a lot safer, somewhat safer, not much safer or not at all? A lot safer, Somewhat safer, Not much, Not at all, Don't know/ Unsure, Refused



Drivers were asked how often they use their headlights during daylight hours, and how much they think doing so makes them safer. Fifty-three percent said they use their lights all of the time and 72% said always or most of the time. This is slightly higher than the NOPUS observations of headlight use, in which observers determined that headlight use was 45.5% in Anchorage, 45.3% in Fairbanks, 22.9% in Juneau, 29.3% in Kenai/Soldotna, and 30.3% in MatSu 30.3%. Statewide, 42.5% of cars observed had their headlights on during daylight hours.



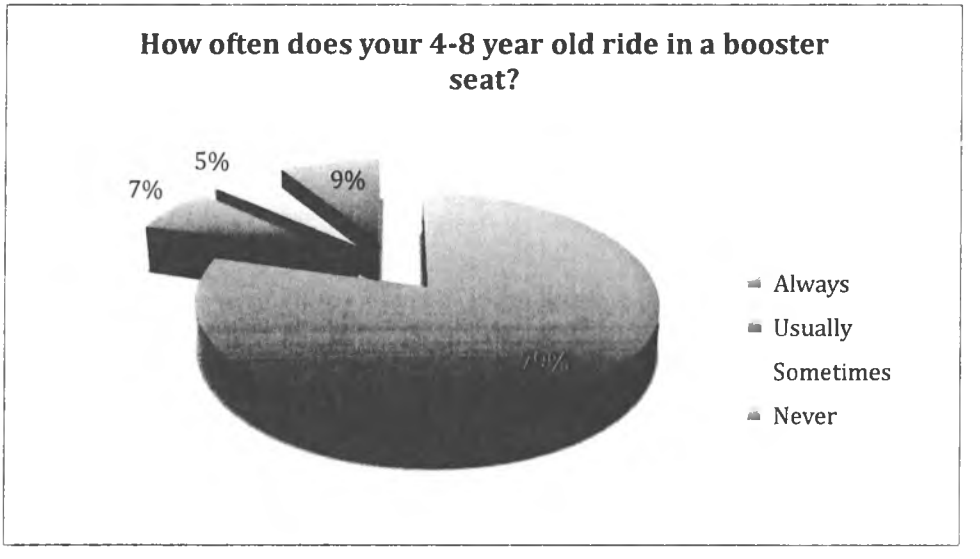
There was a statistically significant correlation between those who felt that using headlights makes a person safer, and people who use headlights.

Booster Seats

The Alaska Injury Prevention Center conducted 3 booster seat use observations studies. The first took place in June 2009, prior to implementation of new booster seat legislation. Fifty-two percent of observed children were using appropriate child passenger safety devices. The second took place in October, 2009 after the legislation,

mandating booster seat use for most children between 4 and 8 years old was signed into law, and a major public awareness campaign was implemented. At that point, 74% of children were using appropriate child passenger safety devices. In July, one-year follow-up observations were made, with a finding that 80% of children were properly restrained.

This phone survey also asked about booster seat use. It first asked whether the driver being interviewed ever drove in a car with a 4-8 year old. [12] If the answer was yes, a follow-up question was asked, how often that child rode in a booster seat.[13]



Drivers' self reported answers mimicked observed use at 79%. This is a dramatic increase from the 52% use observed prior to the media campaign and implementation of the law.

Conclusions:

Results from the 2010 phone survey addressing highway safety issues in Alaska provide useful information for future safety interventions.

- Addressing speeding in low speed limit areas is important, especially since these areas usually involve multiple modes of transportation including bikes and pedestrians.
- Most people wear seatbelts, and at the same time, most people do not think that it is likely that they will get a ticket for being unbuckled. It would be helpful to

[12] Q.30 Do you ever drive with a child between the ages of four and eight? Yes, No, Refused

[13] Q.31 How often is the child riding in a booster seat? Always, Usually, Sometimes, Never, Refused

better understand the motivators for wearing seatbelts, and possibly build them into campaigns for other desired behavior changes.

- Only 16% of people report texting while driving. Tracking changes in this statistic will be important for prioritization of highway safety efforts. It is currently a small number of those who say they text and drive, and texting is reportedly not being done very often. The risk created by texting and driving may be minimal.
- There is a majority belief (70%) that the courts are tough when enforcing drinking and driving laws. Understanding how this perception grew would be helpful for future behavior change and perception creating campaigns.

Conducting phone surveys with Alaskan drivers has created an opportunity to gain insights into behaviors, levels of awareness and motivators for behaviors. This information will be useful to assist with developing future initiatives as well as monitoring success with current one.

For Immediate Release,
1/12/2010

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National Safety Council Estimates that At Least 1.6 Million Crashes are Caused Each Year by Drivers Using Cell Phones and Texting

Washington, DC – The National Safety Council announced today that it estimates at least 28% of all traffic crashes – or at least 1.6 million crashes each year – are caused by drivers using cell phones and texting. NSC estimates that 1.4 million crashes each year are caused by drivers using cell phones and a minimum of 200,000 additional crashes each year are caused by drivers who are texting. The announcement came on the one-year anniversary of NSC's call for a ban on all cell phone use and texting while driving.

"We now know that at least 1.6 million crashes are caused by drivers using cell phones and texting," said Janet Froetscher, president & CEO of the National Safety Council. "We know that cell phone use is a very risky distraction and texting is even higher risk. We now know that cell phone use causes many more crashes than texting. The main reason is that millions more drivers use cell phones than text," she said. "That is why we need to address both texting and cell phone use on our roads."

"This new estimate provides critical data for legislators, business leaders and individuals to evaluate the threat and need for legislation, business policies and personal actions to prevent cell phone use and texting while driving," Froetscher said. "There was great progress made in 2009, particularly regarding a broad recognition that texting is dangerous. We now need the same broad consensus that recognizes cell phone use while driving causes even more crashes."

Froetscher said public support for laws banning cell phone use while driving is gaining momentum.

"Public opinion research conducted in 2009 by the AAA Foundation for Traffic Safety and Nationwide Insurance show public support for total bans on cell phones at 43 and 57 percent respectively," Froetscher said. "With public support now around 50 percent, we will continue to educate people about the risks of cell phone use while driving and the value of effectively-enforced laws in changing behavior and reducing crashes."

In constructing its estimates, NSC used widely-accepted statistical methods and analysis based on data of driver cell phone use from the National Highway Traffic Safety Administration (NHTSA) and from peer-reviewed research that quantifies the risk of using a cell phone and texting while driving. NSC's statistical model and estimates were peer-reviewed by academic researchers in traffic safety and biostatistics.

The estimate of 25% of all crashes -- or 1.4 million crashes – caused by cell phone use was derived from NHTSA data showing 11% of drivers at any one time are using cell phones and from peer-reviewed research reporting cell phone use increases crash risk by four times. The estimate of an additional minimum 3% of crashes -- or 200,000 crashes – caused by texting was derived by NHTSA data showing 1% of drivers at any one time are manipulating their device in ways that

include texting and from research reporting texting increases crash risk by 8 times. Using the highest risk for texting reported by research of 23 times results in a maximum of 1 million crashes due to texting; still less than the 1.4 million crashes caused by other cell phone use.

The National Safety Council (www.nsc.org) saves lives by preventing injuries and deaths at work, in homes and communities, and on the roads, through leadership, research, education and advocacy.

NSC Press Kit

Cell Phone Fact Sheet

Public Opinion Fact Sheet

Attributable Risk Estimate (Cell Phones & Texting)
Risk Estimate Model (Full Study)
Risk Estimate Summary
Risk Estimate Table

NSC Bios

NSC Media Coverage

NSC received significant media coverage on Jan. 12 when it announced that 28 percent of crashes are caused by drivers using their cell phones. NSC also announced the launch of FocusDriven - Advocates for Cell-Free Driving. Below are some highlights of this coverage.

ABC News

CBS News

CBS News "The Early Show"

FOX News

MSNBC

Oprah Winfrey Show

New York Times Series on Distracted Driving

DOT's Distracted Driving Site

PRESS IMAGES

A student talks on a hands-free cell phone while operating a high-tech driving simulator. The simulator was used during a University of Utah study that found motorists who talk on cell phones while driving are as impaired as drunken drivers with blood-alcohol levels at the legal limit of 0.08 percent.

Photo Credit: Jim Moulin

Click to view...

DRIVERS ON CELL PHONES ARE AS BAD AS DRUNKS

UTAH PSYCHOLOGISTS WARN AGAINST CELL PHONE USE WHILE DRIVING

June 29, 2006 -- Three years after the preliminary results first were presented at a scientific meeting and drew wide attention, University of Utah psychologists have published a study showing that motorists who talk on handheld or hands-free cellular phones are as impaired as drunken drivers.

"We found that people are as impaired when they drive and talk on a cell phone as they are when they drive intoxicated at the legal blood-alcohol limit" of 0.08 percent, which is the minimum level that defines illegal drunken driving in most U.S. states, says study co-author Frank Drews, an assistant professor of psychology. "If legislators really want to address driver distraction, then they should consider outlawing cell phone use while driving."

Psychology Professor David Strayer, the study's lead author, adds: "Just like you put yourself and other people at risk when you drive drunk, you put yourself and others at risk when you use a cell phone and drive. The level of impairment is very similar."

"Clearly the safest course of action is to not use a cell phone while driving," concludes the study by Strayer, Drews and Dennis Crouch, a research associate professor of pharmacology and toxicology. The study was set for publication June 29 in the summer 2006 issue of *Human Factors: The Journal of the Human Factors and Ergonomics Society*.

The study reinforced earlier research by Strayer and Drews showing that hands-free cell phones are just as distracting as handheld cell phones because the conversation itself – not just manipulation of a handheld phone – distracts drivers from road conditions.

Human Factors Editor Nancy J. Cooke praised the study: "Although we all have our suspicions about the dangers of cell phone use while driving, human factors research on driver safety helps us move beyond mere suspicions to scientific observations of driver behavior."

The study first gained public notice after Strayer presented preliminary results in July 2003 in Park City, Utah, during the Second International Driving Symposium on Human Factors in Driver Assessment, Training and Vehicle Design. It took until now for the study to be completed, undergo review by other researchers and finally be published.

Key Findings: Different Driving Styles, Similar Impairment

Each of the study"s 40 participants "drove" a PatrolSim driving simulator four times: once each while undistracted, using a handheld cell phone, using a hands-free cell phone and while intoxicated to the 0.08 percent blood-alcohol level after drinking vodka and orange juice. Participants followed a simulated pace car that braked intermittently.

Both handheld and hands-free cell phones impaired driving, with no significant difference in the degree of impairment. That "calls into question driving regulations that prohibited handheld cell phones and permit hands-free cell phones," the researchers write.

The study found that compared with undistracted drivers:

- Motorists who talked on either handheld or hands-free cell phones drove slightly slower, were 9 percent slower to hit the brakes, displayed 24 percent more variation in following distance as their attention switched between driving and conversing, were 19 percent slower to resume normal speed after braking and were more likely to crash. Three study participants rear-ended the pace car. All were talking on cell phones. None were drunk.

- Drivers drunk at the 0.08 percent blood-alcohol level drove a bit more slowly than both undistracted drivers and drivers using cell phones, yet more aggressively. They followed the pace car more closely, were twice as likely to brake only four seconds before a collision would have occurred, and hit their brakes with 23 percent more force. "Neither accident rates, nor reaction times to vehicles braking in front of the participant, nor recovery of lost speed following braking differed significantly" from undistracted drivers, the researchers write.

"Impairments associated with using a cell phone while driving can be as profound as those associated with driving while drunk," they conclude.

Are Drunken Drivers Really Less Accident-Prone than Cell Phone Users?

Drews says the lack of accidents among the study's drunken drivers was surprising. He and Strayer speculate that because simulated drives were conducted during mornings, participants who got drunk were well-rested and in the "up" phase of intoxication. In reality, 80 percent of all fatal alcohol-related accidents occur between 6 p.m. and 6 a.m. when drunken drivers tend to be fatigued. Average blood-alcohol levels in those accidents are twice 0.08 percent. Forty percent of the roughly 42,000 annual U.S. traffic fatalities involve alcohol.

While none of the study's intoxicated drivers crashed, their hard, late braking is "predictive of increased accident rates over the long run," the researchers wrote.

One statistical analysis of the new and previous Utah studies showed cell phone users were 5.36 times more likely to get in an accident than undistracted drivers. Other studies have shown the risk is about the same as for drivers with a 0.08 blood-alcohol level.

Strayer says he expects criticism "suggesting that we are trivializing drunken-driving impairment, but it is anything but the case. We don't think people should drive while drunk, nor should they talk on their cell phone while driving."

Drews says he and Strayer compared the impairment of motorists using cell phones to drivers with a 0.08 percent blood-alcohol level because they wanted to determine if the risk of driving while phoning was comparable to the drunken driving risk considered unacceptable.

"This study does not mean people should start driving drunk," says Drews. "It means that driving while talking on a cell phone is as bad as or maybe worse than driving drunk, which is completely unacceptable and cannot be tolerated by society."

University of Utah Cell Phone Research

Previous research by Strayer, Drews and colleagues include:

- A 2001 study showing that hands-free cell phones are just as distracting as handheld cell phones.
- A 2003 study showing that the reason is "inattention blindness," in which motorists look directly at road conditions but don't really see them because they are distracted by a cell phone conversation. And such drivers aren't aware they are impaired.
- A 2005 study suggesting that when teenagers and young adults talk on cell phones while driving, their reaction times are as slow as those of elderly drivers.

The University of Utah psychologists conducted the alcohol study because a 1997 study by other researchers evaluated the cell phone records of 699 people involved in motor vehicle accidents and found one-fourth of them had used their phone in the 10 minutes before their accident – a four-fold increase in accidents compared with undistracted motorists.

Those researchers speculated there was a comparable risk from drunken driving and cell phone use while driving. So Strayer and Drews conducted a controlled laboratory study.

The study included 25 men and 15 women ages 22 to 34 who were social drinkers (three to five drinks per week) recruited via newspaper advertisements. Two-thirds used a cell phone while driving. Each participant was paid $100 for 10 hours in the study.

The driving simulator has a steering wheel, dashboard instruments and brake and gas pedals from a Ford Crown Victoria sedan. The driver is surrounded by three screens showing freeway scenes. Each simulated daylight freeway drive lasted 15 minutes. The pace car intermittently braked to mimic stop-and-go traffic. Drivers who fail to hit their brakes eventually rear-end the pace car. Other simulated vehicles occasionally passed in the left lane, giving the impression of steady traffic flow.

Each study participant drove the simulator during three sessions – undistracted, drunk or talking to a research assistant on a cell phone – each on a different day.

The simulator recorded driving speed, following distance, braking time and how long it would take to collide with the pace car if brakes were not used.

The study was funded by a $25,000 grant from the Federal Aviation Administration – which is interested in impaired attention among pilots – and by Strayer's and Drews' salaries. The Utah Highway Patrol loaned the researchers a device to measure blood-alcohol levels.

Driving while Distracted: A Growing Problem

The researchers cited figures from the Cellular Telecommunications Industry Association indicating that more than 100 million U.S. motorists use cell phones while driving. The National Highway Transportation Safety Administration estimates that at any given moment during daylight hours, 8 percent of all drivers are talking on a cell phone.

"Fortunately, the percentage of drunk drivers at any time is much lower," Drews says. "So it means the risk of talking on a cell phone and driving is probably much higher than driving intoxicated because more people are talking on cell phones while driving than are driving drunk." The main reason there are not more accidents is that "92 percent of drivers are not on a cell phone and are compensating for drivers on cell phones," he adds.

Cell phone use is far from the only distraction for motorists. The researchers cite talking to passengers, eating, drinking, lighting cigarettes, applying makeup and listening to the radio as the "old standards" of driver distraction.

"However, over the last decade many new electronic devices have been developed, and they are making their way into the vehicle," the researchers write. "Drivers can now surf the Internet, send and receive e-mail or faxes, communicate via a cellular device and even watch television. There is good reason to believe that some of these new multitasking activities may be substantially more distracting than the old standards because they are more cognitively engaging and because they are performed over longer periods of time."

News media may obtain a copy of the study by emailing leesiegel@ucomm.utah.edu or, starting June 29, by going to http://hfes.org and clicking on "What's New"

Other studies by Strayer and colleagues on cell phones and driving may be downloaded from: http://www.psych.utah.edu/AppliedCognitionLab/

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WTAE.com

Woman Gets Jail For Cell Phone Car Crash That Killed H.S. Girl

'Just Let It Ring' Is Britnee Moore's Message To Others

POSTED: 10:59 am EDT
July 30, 2009
UPDATED: 1:17 pm EDT
July 31, 2009

Related To Story

Driver In Car Crash Apologizes To Family

POSTED: 4:32 pm EST July 30, 2009
UPDATED: 4:50 pm EST July 30, 2009

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Britnee Moore expresses remorse as a judge sends her to jail for causing a car crash that killed 16-year-old Hope Maley.

WAYNESBURG, Pa. -- A young Waynesburg woman expressed remorse Thursday as a judge ordered her to serve jail time for causing a car crash that killed a 16-year-old high school student.

Britnee Moore, 20, was found guilty in June of homicide by vehicle. Judge William Nalitz sentenced her to no less than five months and no more than 36 months in the Greene County Jail.

"The judge did say during the sentencing that no sentence would help the family, but I disagree. I was hoping she would be mandated to a state prison," said Hope Maley's mother, Darlene. "Hope's life matters, and I just have not seen any remorse. The defendant has never apologized in over 2 1/2 years."

Maley's family said Moore never apologized to them. Outside the courtroom on Thursday, Moore did tell Channel 4 Action News that she was sorry.

"I'm just real sorry for my actions and I hope a lot of other people learn from this," said Moore, who told reporters, "I take full responsibility for this."

More: Read Britnee Moore's Letter To Victim's Family (PDF)

State police said Moore was going too fast in a 45 mph zone and reaching for a cell phone when her car collided head-on with Hope Maley's car in Franklin Township in March 2007.

Maley, who attended Waynesburg High School, was pronounced dead at the scene of the wreck on a curvy section of Route 218 near Randy Hoge Road.

Asked if she had a message for the Maley family, Moore said, "I'm very sorry for your loss. My prayers go out to you."

More: Read Hope Maley's Mother's Letter To Judge

Police estimated that Maley was driving somewhere between 25 mph and 47 mph when the collision happened.

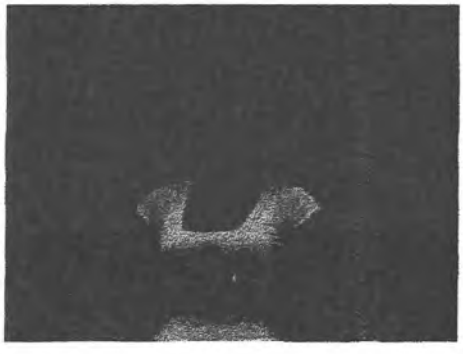
In addition to the homicide by vehicle charge, Moore was convicted of involuntary manslaughter and reckless endangerment.

Moore hopes her example will teach people "not to pick up their cell phone when they're driving. Just let it ring, no matter how important your call is, and don't rush."

Hope Maley

Previous Stories:

- June 29, 2009: 'Run For Hope' Remembers Greene Co. Teen Crash Victim
- June 4, 2009: Woman, 20, Guilty In Car Collision That Killed High School Girl



Britnee Moore

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WSOCTV.com

Stanley Teen Killed In Crash Using Cell Phone While Driving

Posted: 5:34 pm EDT September 7, 2009Updated: 8:43 am EDT September 8, 2009

GASTON COUNTY, N.C. -- A 16-year-old Stanley girl crashed while using a cell phone and died Sunday night, witnesses and investigators said.

Brittany Johnson, an East Gaston High School student, was driving on Mauney Road toward Stanley when she wrecked at about 6:30 p.m. Troopers said she ran off the right side of the road, struck an embankment, went airborne and then hit a utility pole.

Rescue crews found the teen's Chevrolet Lumina on its side, and it appeared the top of the car hit the utility pole just above the teen's head before the car spun around. Johnson was pronounced dead at the scene.

Neighbors who heard the crash ran out to help. Greg Burch said the car was wrapped like a horseshoe around the pole.

"We tried to help her out, but we couldn't do nothing for her," Burch said.

Burch said he found Johnson's cell phone on the ground nearby, and it had an unfinished text message to her mother on the screen.

He said he used the number marked "Mom" to make a heartbreaking phone call.

"I asked her if her daughter drove a green Lumina," Burch said.

He said he told her to come to the scene quickly, but she asked the question he didn't want to answer.

"It was tough. She asked me how she was, and I said, 'I don't know,'" Burch said.

He said he suspected the worst, but he didn't want to say it.

On Monday, Johnson's grandmother hugged Burch and thanked him for making the call.

She whispered a little goodbye as she stared down at the growing memorial of flowers, stuffed animals and notes placed at the scene by friends and supporters.

"It hurts, Brit. It hurts, but I know you are with God now so you'll be OK," Helen Anderson said.

Anderson said Johnson was her first grandchild. She said she hopes other teens will learn from the tragedy.

"I hope they learn their lesson and don't put their families what we are going through now. Don't text and drive. It's not that important," she said.

Classmates and friends cried together at the pole Monday. Johnson's boyfriend put her picture on the pole, and together they silently said goodbye.

"I'll always love her," Anderson said.

Family members said they are still working on funeral plans. A memorial service for Johnson was held at the First Baptist Church in Stanley on Monday evening.

North Carolina is one of nine states that bans texting for certain groups. In some cases, they restrict drivers younger than 18, and in others, the ban has to do with restrictions on the license, not the driver.

On Dec. 1, North Carolina will join a group of 18 states that have total bans, which restrict all drivers from texting while driving.

South Carolina does not have any sort of cell phone ban, but it could be forced to adopt one if Congress goes ahead with a nationwide ban.

Several studies have indicated how dangerous texting while driving can be. A study from Car And Driver magazine found texting is more dangerous than driving drunk. A study out of Virginia Tech found text messaging could take the driver's eyes off the road for 4.6 seconds. That's equal to driving the length of a football field at 55 mph

- **LINK:** Virginia Tech Study On Cell Phone Use And Driving Distraction
- **LINK:** Car And Driver: Texting While Driving Feature

Previous Stories:

- June 10, 2009: N.C. Lawmakers Vote to Ban Texting While Driving
- February 10, 2009: Text-Messaging Ban For N.C. Drivers Sought In House
- November 16, 2007: Texting Drivers Put Others At Risk

PITTSBURGH
TRIBUNE-REVIEW

Crash survivor urges cell-phone ban

By Brad Bumsted
STATE CAPITOL REPORTER
Thursday, March 12, 2009

HARRISBURG — Jacy Good lost her parents in a May vehicle crash she says could have been avoided if the driver at fault had not been talking on a hand-held cell phone.

The Goods were returning to their Lancaster County home on the day that Jacy, 22, graduated from Muhlenberg College in Allentown. Jay and Jean Good, both 57, died in the crash on Route 222 when their station wagon, stuffed with Jacy's belongings, was hit by a tractor-trailer that swerved to avoid a minivan that ran a red light, police say.

Jacy Good suffered a shattered pelvis, several broken bones and a brain injury.

Now she is the "face" of a state House effort to ban hand-held cell phone use by drivers and to make text messaging while driving illegal.

"I will not stop until this bill becomes law," Good said Wednesday after a news conference. Enacting the law would honor her parents, she said.

"Paramedics and the doctors were giving her a less than 10 percent chance" of living, said Northern Berks Regional Police Chief Scott Eaken. He confirmed the 18-year-old minivan driver was talking on a cell phone when the crash happened and was cited for traffic violations.

Berks County District Attorney John Adams said he decided against filing charges of homicide by vehicle or involuntary manslaughter because his office could not establish that the driver ran the light because he was on the phone. It did not rise to the level of "reckless or gross negligence" as it might have if the driver were intoxicated or speeding 30 miles above the limit, Adams said.

"The guy was on the phone with somebody from Bible camp or Bible school," he said, but added, "An inexperienced driver should not be on a cell phone."

Rep. Josh Shapiro, a Montgomery County Democrat, cited Good's story, other crash statistics and the bill's 70 co-sponsors as reasons he believes lawmakers will pass the legislation. He began pushing the idea four years ago without much data. His bill failed to gain traction last session.

"We've got the technology available today to save lives in Pennsylvania," Shapiro said.

But Matthew Brouillette, president of the Commonwealth Foundation, a conservative policy group, said he isn't convinced the bill would make the highways safer.

"There is no way to adequately regulate and punish activities that distract drivers," Brouillette said. "Whether it is eating, putting on makeup or talking on the phone, the issue is more about personal responsibility and paying the consequences for bad decisions than trying to come up with another law that has not proven to make our roads safer."

Under the bill, violators would be charged with a summary offense carrying a $50 fine. Motorists could use speaker phones or cell phones with earpieces.

About 1,200 crashes involving drivers with hand-held phones occur in Pennsylvania each year, according to PennDOT figures. Fifty-six crashes in 2007 involved drivers using hands-free cell phones, Shapiro said.

Six states, including New York and New Jersey, have enacted bans, as has the District of Columbia.

"My friends from New York and New Jersey don't understand why Pennsylvania is having trouble passing this bill," Good said.

Pollster Mike Young, a former political science professor at Penn State University, said the average Pennsylvanian probably places the issue far down a growing list of things to worry about.

"Pennsylvania is not an 'early adopter' of most reforms, nor an enthusiastic advocate of state restrictions on social behavior," he said.

Senate Transportation Chairman Rob Wonderling, a Republican from Montgomery County, said the Senate's priority is "to put Pennsylvanians back to work."

Wonderling said a cell phone ban likely won't be debated early this session, but he wouldn't rule it out. He said he would take a "deliberative approach" with any such bill, weighing others' views.

Verizon Wireless supports statewide legislation to ban hand-held cell phones while driving but questions municipal regulations that drivers can find confusing, said Laura Merritt, a Dublin, Ohio-based spokeswoman for the company.

"We will certainly not oppose anything of that nature. We strongly encourage our drivers to focus on driving," Merritt said.

Brad Bumsted can be reached at bbumsted@tribweb.com or 717-787-1405.

Alaska State Legislature

Mike Doogan
Representative
District 25, Anchorage

April 7, 2009

The Honorable Representative Peggy Wilson
Alaska State Capitol
Room 408
Juneau, AK 99801

Dear Representative Wilson:

I understand the House Transportation Committee you chair will be taking up the issue of cell phone use while driving on March 1. It was also brought to my attention that you offered to look at the several cell phone related bills at the same time, though Rep. Munoz' HB 22 will be the likely vehicle moving forward.

I appreciate the opportunity to present my own HB 35, but, in the interest of time and efficiency, I will respectfully decline to do so. I would urge the committee to consider some of the merits of HB 35 as it deliberates on this important safety issue. The difference between the two bills is that HB 22 makes an exception for hands-free cell phone use, while my bill does not. Studies have shown that hands-free cell use is not significantly less distracting, and that driving ability is still impaired. It is different than talking to a passenger in the car, because it requires different thought processes, and also because passengers are aware of changing road conditions.

Again, I thank you for the opportunity to present, though I respectfully decline, and hope the committee will pass a bill that best provides for safe roadways.

Sincerely,

Mike Doogan

Rep. Mike Doogan

State Capitol
Juneau, AK 99801
907-465-4998 or 800-689-4998
Fax 907-465-4419

716 West 4th Avenue
Anchorage, AK 99501
907-269-0216
Fax 907-269-0218

Rep.Mike.Doogan@legis.state.ak.us

Kendra Kloster

From: RDeising@aol.com
Sent: Monday, January 31, 2011 3:43 PM
To: Rep. Cathy Munoz
Subject: Cell Phone Bill HB 22

Greetings Representative Munoz, I write to you in support of HB 22 that you have worked so hard to get on the floor of the Session going on. My name is Ricky Deising 58 year old male who has lived here in Juneau the past 32 years and I ride a Harley Davidson Motorcycle, The reason I support this bill are several but what took place last summer to comes to mind firstly, I was riding down the road by the Juneau Empire when out of the DOT parking area a car pulled out in front of me with the driver on her cell phone in her left hand which was blocking her view of the road, I had to react fast by locking up my brakes and sliding sideways to avoid being run over, when the driver did hear me yelling and I came to a stop with my foot hitting her door she realized what had just happened, after yelling at her for being on her cell phone and almost ending my life, she said very casually sorry and drove away while still talking on her phone, Being a grown adult is one thing, but kids never would have had a chance and probably could or would have been seriously injured or killed because of this action by a cell phone user while driving, and not paying attention to the task of being a safe and responsible person behind the wheel of a moving vehicle, there have been several other near misses by drivers on their phones just pulling over into the next lane without even looking because their view is blocked by the phone in their hand, lucky again for me that I am a skilled rider and have been able to avoid a crash while going 55 mph on a motorcycle. I ask that each and everyone of our Elected Officials please support HB 22 and pass it into law. With the passing of this HB 22 I can guarantee many lives will be saved that other wise will be lost to someone using a cell phone driving down the road.

Praise Life & Namast'e Ricky Deising 4500 Glacier Hwy Juneau Alaska.

APOA
ALASKA PEACE OFFICERS ASSOCIATION

ALASKA ASSOCIATION OF CHIEFS OF POLICE

Women Police of Alaska

February 14, 2011

Representative Cathy Muñoz
House of Representatives
State Capitol
Juneau AK 99801-1182

Dear Representative Muñoz:

On behalf of our respective organizations, we would like to thank you for introducing HB 22, an Act prohibiting the use of a cellular telephone when driving a motor vehicle; and providing for an effective date.

We met recently to review proposed legislation and decided to unanimously support this bill.

Again, thank you for addressing this issue. Please contact the APOA office in Anchorage at 277-0515 if there is anything our organizations can do to assist in the passage of this bill.

Sincerely,

John Lucking Jr., President
Alaska Peace Officers Association
PO Box 240106
Anchorage AK 99524

Tom Clemons, President
Alaska Association of Chiefs of Police
183 Nelson Ave
Wasilla AK 99654

Michele Logan, President
Women Police of Alaska
PO Box 233306
Anchorage AK 99523

cc: Bob Herron

February 20, 2011

Gary & Kathy Miller
20135 Cohen Dr
Juneau, AK 99801-8211

Representative Cathy Munoz
State Capitol Room 403
Juneau AK, 99801

Subject: HB 22, 35, 68 & 128.

Dear Representative Munoz,

We support legislation that prohibits the use of cell phones and devices for texting while people are driving. We believe that the police should be allowed to pull offenders over and ticket them if they violate this.

Thank you.
Gary Miller
Kathleen Miller

Gary & Kathleen Miller

January 28, 2011

Representative Munoz
State Capitol Room 403
Juneau, AK 99801

Re: HB35 and HB68

Dear Honorable Representative Munoz-

Thank you for your support of both of these bills. I think that even hands-free use should be banned except in the event of an emergency. Talking on any cell phone is really dangerous because it creates a distraction from the primary function of driving. And for those who say that hands-free is not a distraction because one's hands are not involved, it's simply not true. Drivers talking on a cell phone are not fully engaged in the act of driving and are less likely to respond to events. I used to talk on my cell phone frequently, but have reduced that dramatically after almost being involved in two accidents.

Please support a total ban on driving while using a cell phone.

Sincerely,

Michele Foley
1097 Willow Grouse Road
Fairbanks, AK 99712
907.479.0684

Kendra Kloster

Subject: Please outlaw cell phone use when driving

Dear Members of the Alaska State Legislature:

I respectfully request that you create a law prohibiting motor vehicle drivers from talking on cells phones - including hands free models - when they are driving, except in the event of an emergency.

There is sufficient evidence that distractions are a significant cause of accidents. And talking on a cell phone including a hands free cell phone takes attention from the most important job at hand, driving. (Please see the websites below.)

I recognize that many people think they are skilled multi-taskers; and they like

the convenience of being able to keep in touch with friends and family while driving. However, the benefits don't outweigh the costs in terms of potential danger and harm that may eventuate by inattentiveness at the wheel. If it is truly important for a driver to be in contact with friends and family while motoring, the driver can pull off the road and return or place a call.

While I understand there is a movement afoot to prohibit the use of hand held cell phones, this approach does not adequately take into consideration the danger involved in simply talking on a cell phone, whether hand held or not.

Your consideration will be most appreciated.

Thank you.

Andrea Veach
PO Box 90534
Anchorage, Alaska 99509

http://pubsindex.trb.org/DOCs/Publications%20from%20TRIS%20on%20Distracted%20Driving.pdf

http://www.bmj.com/content/331/7514/428.abstract

http://www.nhtsa.gov/About+NHTSA/Press+Releases/2010/ci.Consumer+Advisory:+Make+Safety+Your+Constant+Companion+This+Summer+Driving+Season.print

http://www.distraction.gov/stats-and-facts/#electronic

http://www.ehow.com/about_5188398_accidents-caused-cell-phone-use.html

Kendra Kloster

Subject: FW: Support Cell Phone Ban

Please note my support for legislation (three bills) that would ban cell phone use while driving. I would ban "all" cell phone use, including "hands-free" which I understand causes some drivers to become distracted and to cause a crash, injury or death. I experienced almost getting run over on three separate occasions (all in a cross walk) due to cell phone use. I subscribe to the idea of "do no harm," by which I mean people should not have the "freedom" to run over me due to their distracted driving habits.

Sincerely,

Gene Miller

3261 Foster Avenue
Juneau, AK 99801-1924

907-463-6720 or 907-723-5537 (cell)
gmiller03@live.com

Kendra Kloster

Subject: Drive Safe Alaska Coalition

Dear Rep. Munoz,

I share your concern with cellphone usage while driving and am pleased you have introduced HB-22. My public relations firm is in the process of forming the Drive Safe Alaska Coalition, a public awareness campaign to educate Alaskans on the dangers of texting while driving. MSI Communications has spearheaded several public awareness campaigns, including one for the AK Men's Run to raise funds for cancer research as well as political campaigns such as Alaskans Standing Together that helped re-elect Senator Lisa Murkowski.

Educating Alaska drivers on the dangers of texting while driving is our way of giving back. Many of us here at MSI are parents of teenagers and well aware of the impact texting has on their lives. We believe educating them on safe driving could only enhance our communities. I've attached a summary and hope you will support this effort by including it in the capital budget.

Please call me with any questions.

Regards,

Ingrid Parish

Account Manager

MSI Communications
3501 Denali Street, Suite 202
Anchorage, Alaska 99503
Phone 907.569.7070

Cell 907.230.0415
Fax 907.569.7090

msi communications
marketing • strategy • interactive

Kendra Kloster

Subject: H.B. 22

From: BrettnRose [mailto:brettnrose@gci.net]
Sent: Monday, February 07, 2011 11:52 AM
To: Rep. Cathy Munoz; BrettnRose
Subject: H.B. 22

Dear Rep Cathy Munoz

Please reconsider H.B. 22

As one person has said you are creating the "PHONE POLICE".
As a police officer is talking on the phone/radio he will be stopping a citizen for talking on the phone !
Does this make sense ?

So add another voter to the NO on H.B.22 list.

Brett Freyder
Juneau
723-5456

U.S. Department of Transportation
National Highway Traffic Safety Administration

TRAFFIC SAFETY FACTS
Research Note

NHTSA
www.nhtsa.gov

DOT HS 811 376

September 2010

High Visibility Enforcement Demonstration Programs in Connecticut and New York Reduce Hand-Held Phone Use

By Linda Cosgrove, Neil Chaudhary, and Scott Roberts

Driving while distracted increases the likelihood of a crash (NHTSA, 2010), and recent well-publicized events have brought this unsafe driving behavior to the forefront of the public eye. According to CTIA-The Wireless Association (2009) about 285 million Americans (91% of all Americans) now own cell phones, compared to only 1 million in 1987. The National Health Interview Survey (Blumberg & Luke, 2010) found that nearly one in four households were wireless only (no land line), up nearly 2 percentage points from the year before. The popularity of text messaging is increasing, and videotaped footage of drivers who were texting immediately before a crash has circulated widely on television and the Internet.

The National Highway Traffic Safety Administration estimates that 6% of drivers nationwide were using an electronic device at any given time in 2008 (Pickrell & Ye, 2009. A meta-analysis (Horrey & Wickens, 2006) of 23 experiments that measured the effects of cell phone use on driving performance found that, across all studies, reaction times were consistently slower when using a cell phone than when not using a phone.

To address this problem, NHTSA initiated distracted driving demonstration programs in two communities to test whether a high visibility enforcement (HVE) model could reduce two specific instances of distracted driving -- talking or texting using a hand-held cell phone. The HVE model combines dedicated law enforcement during a specific period, paid and earned media emphasizing an enforcement-based message, and evaluation before and after. *Click It or Ticket*, NHTSA's best known and most successful HVE campaign for seat belt use, has also been effective in areas of aggressive driving and impaired driving. This report summarizes results from the first two of four waves of enforcement and media for distracted driving high visibility enforcement campaigns in two communities.

Background

Over the past several years legislatures have introduced laws banning hand-held cell phone use and texting in a number of States. New York and Connecticut passed laws banning hand-held cell phone while driving in 2001 and 2005 respectively. At the time of this report, 8 States and the District of Columbia have banned hand-held cell phone use for all drivers, and 30 States and the District have banned texting for all drivers (GHSA, 2010). Many States also ban any use of a cell phone (even with a hands-free device) for novice teen drivers. The demonstration projects were aimed to test whether HVE would be effective in persuading drivers not to use hand-held phones to talk or text, whether law enforcement would be able to observe violations, and whether an HVE campaign would increase drivers' perceived risk of receiving a citation for violating the law.

***Hand-held cell phone use while driving dropped 56% in Hartford** (from 6.8% to 3.1%) **and 38% in Syracuse** (from 3.7% to 2.3%).*

***Texting while driving declined 68% in Hartford** (from 3.9% to 1.4%) **and 42% in Syracuse** (from 2.8% to 1.6%).*

Under the leadership of the U.S. Department of Transportation Secretary Ray LaHood, NHTSA awarded cooperative agreements to Connecticut and New York to implement and evaluate demonstration programs that apply the high visibility enforcement model to distracted driving at the community level. Syracuse, New York, and Hartford, Connecticut, (a combination of three contiguous cities -- East Hartford, Hartford, and West Hartford) conducted the demonstrations.

Program Description

NHTSA worked with the Connecticut Department of Transportation and the New York Department of Motor Vehicles' (DMV) Governor's Traffic Safety Committee to conduct model high visibility enforcement programs in the two selected communities. In Connecticut, the participating law enforcement agencies were the Connecticut State Police and the Hartford, West Hartford, and East Hartford Police Departments. In New York, the New York State Police, the Syracuse Police Department, and the Onondaga County Sheriff's Office participated. Both communities planned to conduct four waves of enforcement over the course of one year.

Under separate contracts, NHTSA provided evaluation and communications support to both sites. Preusser Research Group was the evaluation firm and the Tombras Group was the communications firm.

Table 1
Demonstration Program and Evaluation Schedule

	Wave 1		Wave 2	
	CT	NY	CT	NY
Pre Wave Observations	March 18-22	March 25-27	July 8-12	July 8-10
Pre Wave Awareness	March 23-27	March 15-19	July 6-10	July 5-9
Media Flight	April 4-16	April 4-16	July 22-28	July 20-26
Enforcement Dates	April 10-16	April 8-17	July 24-30	July 22-31
Post Wave Observations	April 15-19	April 15-17	July 29-August 2	July 29-31
Post Wave Awareness	April 15-20	April 19-22	July 29-August 3	August 2-6

The first two waves of focused enforcement took place in April and July 2010. Table 1 shows the timeline for pre and post evaluation data collection, media flights, and enforcement in test and control sites.

Development of the Creative Material

In September 2009 NHTSA explored a variety of project themes and held focus groups in Syracuse and Hartford (four in each city). Six potential taglines were selected for assessment. The line "A phone in one hand leads to a ticket in the other" received the highest marks. Based on additional comments, the line for the demonstration project was shortened to *Phone in One Hand, Ticket in the Other.*

The creative material was designed to generate high awareness of stepped-up enforcement efforts regarding local cell phone laws and convince drivers to adhere to those laws. In December 2009, eight more focus groups were held in Hartford and Syracuse to test four TV commercial ideas. The "BAM!" concept received the highest marks, and became the ad for the demo project.

Earned Media

Secretary LaHood and NHTSA Administrator David Strickland launched the campaign with press events (U.S. DOT, 2010) in each State on April 8, 2010. These events generated considerable coverage from local and national media outlets including a feature on ABC-TV's *Good Morning America* (Clarke, 2010) and a feature on ABC News (San Miguel, 2010).

Each of the demonstration sites received sample earned media templates so that they could develop localized press releases, fact sheets and post wave press releases. Outreach with the news media and various partners during each wave resulted in scores of articles and events in both States. In Connecticut and New York, more than 100 news organizations developed news stories about the demonstration projects. Syracuse and Hartford actively generated opportunities to earn additional media for the program. For instance, New York initiated a media tour and the Connecticut DMV joined with Traveler's Insurance Company to sponsor a teen driving video contest.

Paid Media

NHTSA's Office of Communications and Consumer Information purchased air time to promote the program activity and emphasize the enforcement component among the target audience of men and women 18 to 45 years old. The television spots are available online at distraction.gov/hartford and distraction.gov/syracuse. Figure 1 shows a still shot from one of the animated Internet ads also located on the Web site.

Advertisers use "gross rating points" (GRPs) to determine how much of their target audience is reached by a specific advertisement multiplied by the number of times the target audience sees it. For the first wave in April 2010, NHTSA purchased two weeks of advertising in each demonstration location at a level of about 535 GRPs for television/cable, 400 GRPs for radio, and an additional 2 million online impressions on Web sites like USAToday.com. This was considered a strong buy that would reach the target audience enough times that the ad's message would resonate with them. For the second wave in July 2010, NHTSA purchased one week of advertising in each demonstration location at a level of about 300 GRPs for television/cable, approximately 240 GRPs for radio, and an additional 1.5 million online impressions. The media expenditures were $219,290 in Hartford and $88,904 in Syracuse for both waves combine (see Table 2).

The Connecticut Highway Safety Office also ran the *Phone in One Hand, Ticket in the Other* slogan on variable message boards in and around the pilot area and purchased digital billboards on major Hartford Interstate Highways I-84 and I-91. The billboard message also ran at the XL Center, a sports and concert venue in downtown Hartford. This message ran on the XL Center digital billboard and outdoor marquee.

Enforcement

Hartford and Syracuse chose enforcement strategies tailored to their communities. Hartford preferred a spotter technique, where an officer, usually standing on the side of the road, radioed ahead to another officer whenever a passing motorist using a hand-held cell phone was observed. The second officer made the stop and wrote the ticket. The Connecticut Highway Safety Office prepared citation holders, short brochures that officers used to hold the tickets to provide specific information about Connecticut's cell phone law, the fine amount, and the risks associated with distraction.

Syracuse preferred roving patrols where officers drove though their jurisdiction actively seeking out distracted drivers using cell phones or texting. Officers reported that higher vantage points, SUVs, and unmarked vehicles were particularly effective in identifying violators. Both States found that having the flexibility to schedule overtime shifts as needed was critical to the successful implementation of the enforcement mobilizations.

Figure 1
Scene From Animated Internet Banner Ad

Table 2
Media Buy

	Wave 1 (2 weeks)		Wave 2 (1 week)	
	Hartford	Syracuse	Hartford	Syracuse
TV Cost	$108,651	$36,898	$57,098	$21,517
Radio Cost	$108,651	$36,898	$57,098	$21,517
Online Cost	$5,000	$5,000	$3,750	$3,750
Total Cost	$140,855	$54,159	$78,435	$34,745

Table 3
Enforcement Hours and Citations Issued

	Wave 1		Wave 2	
	Hartford	Syracuse	Hartford	Syracuse
Dedicated Hours	1,345	1,370	1,856	1,337
Hand-Held Phone Use	2,329	2,185	2,327	1,977
Text/E-mail/ Distraction	279	115	21	169
Citations/10k Population	107	167	100	156

Both Hartford and Syracuse dedicated officers to vigorously enforce the hand-held cell phone ban during the two waves, exceeding benchmarks based on previous high visibility enforcement campaigns. Table 3 shows the number of enforcement hours and phone and texting citations issued in each site, along with the rate of citations per 10,000 of each city's population.

Evaluation Methodology

Before and after each enforcement wave, NHTSA conducted observations of driver cell phone use and collected public awareness surveys at driver licensing offices in each test and comparison site.

Albany, New York, served as the comparison area for Syracuse. Bridgeport and Stamford, Connecticut, were noncontiguous control areas to match the demographics of the three Hartford area cities. Control sites allow evaluators to separate the effect of the demonstration program from extraneous influences that may be going on in the State. None of the control sites received the paid media advertising and law enforcement officers continued their usual enforcement activities without special emphasis on cell phone laws.

Cell Phone Observations

Cell phone observations were taken at 15 sites in each intervention area, plus 15 sites in Albany, 15 in Stamford, and 7 sites in Bridgeport. Sites were selected from road segments based on traffic volume estimates. Three of the sites in each area were highway off-ramps. The rest of the sites were identified from the highest volume segments, assuring that they were geographically dispersed throughout the areas. The main goal of site selection was to capture the bulk of the traffic streams in the given area.

Observation protocols were based on NHTSA's National Occupant Protection Use Survey (NOPUS) observation protocols, adapted to increase sample size. An earlier formulation of the method, consistent with NOPUS observation protocols, had observers sampling from traffic stopped at red lights. Therefore all selected sites were at traffic light controlled intersections. Pilot testing of this method resulted in few observations and NHTSA modified its method to observe moving traffic only. Observations were made from

street corners observing one direction of traffic (the vehicles traveling in the lanes nearest the observer) for one hour at each site. When traffic signals turned red, observers pivoted and sampled vehicles from the moving traffic on the cross street. Observers coded vehicle type, sex, estimated age (16-24, 25-59, 60+) and whether the driver was holding a hand-held phone to her or his ear, manipulating a cell phone (other than by holding to one's ear) and if the driver had a hands-free headset (e.g., Bluetooth) in the visible ear.

The main analyses were the average percentage of each of the three cell phone use categories separately for each test and control area. Weighting of data occurred prior to analysis so that each site held equal weight. That is, for a 15-site survey in which the number of observed drivers varied between sites, the percentage use recorded in each site contributed an equal 1/15 of the total use rate for that area. Binary logistic regressions analyses evaluated the significance of differences and chi squares were conducted for raw data for subsets of the data (e.g., age). Over 121,000 vehicles were observed for the first two waves of the demonstration program.

Self-Reported Use and Awareness Surveys

Motorists who visited driver licensing offices in the test and comparison sites completed a single page questionnaire asking whether they had seen or heard of the distracted driving program, enforcement, or messaging. They were asked about their cell phone use while driving and whether they had changed their cell phone use in the past 30 days, among other topics. Surveyors collected more surveys for the first (pre Wave 1) administration and will do the same for the final (post Wave 4) administration to increase the power of analyses for both baseline and final data. Over 11,000 self-report surveys were collected for the first two waves of the demonstration program.

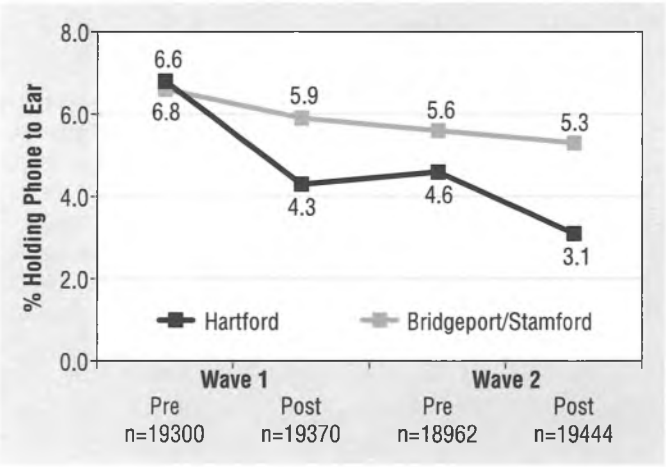
Researchers collected some data a bit later than originally planned (Table 1). In Syracuse there was a clerical error on the final question about slogan recognition. For this question, the analyses report data from another survey administered two weeks later in both Syracuse and Albany. There were inexplicable fluctuations in the Wave 2 results (pre and post) in the Albany surveys compared to Wave 1. For example there were 14% (pre) and 11% (post) of the respondents who reported having gotten a ticket for using a hand-held phone in the past month for Wave 2. This value was only 1% in both pre and post Wave 1 surveys. The data collected two weeks later were more comparable to Wave 1 results. For this reason the researchers deemed the original data from Albany Wave 2 unreliable. The analyses report only the re-sampled post wave data for Albany.

Results

Observed Phone Use in Connecticut

The results of Wave 1 showed a significant decrease ($p < .01$) in hand-held cell phone use in the Hartford areas from 6.8% before the program to 4.3. afterwards (see Figure 2). The control areas also showed a slight decrease in hand-held cell phone use, but this was not statistically significant (6.6% to 5.9%, $p > .05$).

Figure 2
Observed Hand-Held Phone Use in Connecticut



There were further reductions in observed hand-held cell phone use in the second wave in the Hartford intervention area. In between waves, there was minimal increase in hand-held cell phone use in the Hartford areas, when the program was silent. Observed use was 4.6% at the pre measurement of the second wave, dropping to 3.1% in the post measurement ($p < .01$). Use in the control areas continued a slight, although not statistically significant, downward trend, starting at 5.6% and dropping to 5.3% ($p > .05$).

From the baseline (pre Wave 1) to the end of the second wave (post Wave 2) hand-held cell phone use dropped 56% (from 6.8% to 3.1% in the Hartford areas compared to 20% (6.6% to 5.3%) in the control areas.

Most of the decrease in cell phone use was attributed to drivers age 25 to 59 in the Hartford area. Young drivers 16 to 24 dropped 5.3 percentage points (from a pre of 9.0% to a post of 3.7%) following enforcement during Wave 1. However, relatively small sample sizes for this group made this drop only marginally significant ($p < .06$). There was no change for the second wave for the young drivers and there was also no change in use among this group for control areas in either wave. For the 25- to 59-year-old age group, there were significant pre to post drops for both waves in the Hartford area. The changes in the control areas were not significant for either wave and there were no significant effects for the oldest drivers in either wave in either area.

There were significant drops in observed phone use for men and women in both waves in the Hartford area. Surprisingly, there were significant (p's $< .05$) pre to post decreases among female drivers in the control area for both waves but no change for male drivers.

For Wave 1, headset use significantly decreased from pre to post in both the Hartford area (3.5% to 2.8%) and in the control area (4.1% to 2.7%). For Wave 2, none of the pre to post differences were significant in either the test or control sites.

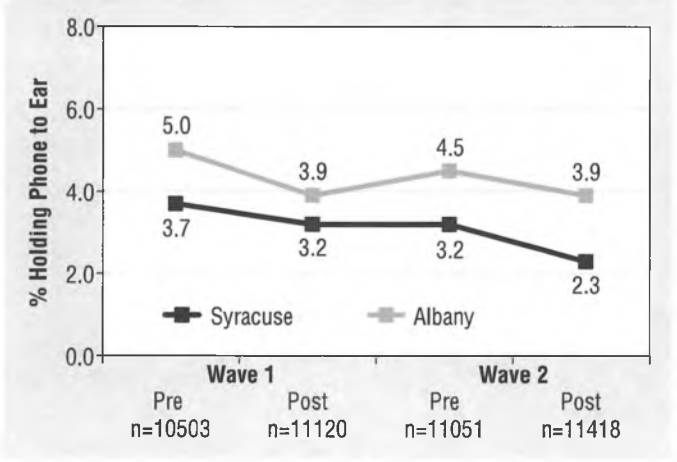
The percentage of people observed manipulating their phones decreased significantly in Wave 1 from pre to post. There was a larger decrease in the Hartford area (3.9% to 2.7%) than in the control area (2.8% to 2.1%). For Wave 2 there was another significant pre to post decrease without much of an increase between waves in the Hartford area (2.6% to 1.4%). There was no change in the control area for the second wave (2.6% to 2.6%).

Observed Phone Use in New York

The results of Wave 1 showed a non-significant decrease in hand-held cell phone use in Syracuse going from 3.7% to 3.2% ($p > .05$) (see Figure 3). There was an unexpected decrease in use in the control area that did reach significance. In Albany use started at 5.0% and dropped to 3.9%.

Wave 2 results were more in line with expectations. Between waves there was no increase in hand-held cell phone in Syracuse and use remained at 3.2%. After the second wave there was a significant drop in use to 2.3% ($p < .01$). Use in Albany rebounded between waves and was 4.5% prior to Wave 2. There was a drop in hand-held cell phone use in Albany (to 3.9%) but this decrease was not significant.

Figure 3
Observed Hand-Held Phone Use in New York



From the baseline (pre Wave 1) to the end of the second wave (post Wave 2) hand-held cell phone use dropped 38% (from 3.7% to 2.3%) in Syracuse compared to a 22% decline (from 5.0% to 3.9%) in Albany.

Drivers 25 to 59 accounted for most of the decrease in cell phone use in Syracuse in Wave 1, but not enough to influence the overall observation rate. None of the other age categories in Syracuse showed a decrease for this wave. The same age group was also the only significant decrease for the Albany drivers in Wave 1. For Wave 2, this group was again the only age group showing a significant decrease in Syracuse. In Albany, despite no overall significant drop, the drivers under 25 showed a significant decrease in driving while using a hand-held phone.

During Wave 1, male drivers showed a significant decrease in driving while on a hand-held phone in Syracuse while women did not. This effect for men was also the only significant drop in Albany. In the second wave men again significantly reduced their use in Syracuse while women did not. Conversely, there was a small but significant decrease in use by women in Albany but not men.

Observations of phone manipulation (e.g., texting, dialing) significantly decreased ($p < .05$) in Syracuse in Wave 1 (2.8% to 2.2%). There was also a decrease in Wave 2 (2.2% to 1.6%), but this decrease was not significant. The observed rate of manipulating a phone while driving was much higher in Albany than Syracuse. In both waves there was a significant pre to post decrease in observed phone manipulation in Albany (Wave 1: 6.3% to 5.3%; Wave 2: 5.7% to 3.0%). Both cities showed an overall decrease of 43% in observed phone manipulation from the baseline to the end of the second wave, with an absolute change of 1.2 percentage points in Syracuse and 3.3 points in Albany.

There were no significant changes in Syracuse in the percentage of drivers observed with hands-free headset. In both waves (pre and post) the rate was about 2% (ranging from 1.7% to 2.3%). Albany's rate of hands-free use was more variable ranging from 4.4% to 2.6%. There was a significant decrease between pre and post use rates during Wave 1 (4.4% to 2.8%).

Self-Reported Cell Phone Use and Program Awareness in Connecticut

Respondents in Connecticut were aware of and knowledgeable about the program and enforcement. From pre to post in Wave 1, Hartford area respondents reported increased chances of getting tickets while there was no effect in the control area. In both Syracuse and the control site, Albany, respondents also reported hearing more general distracted driving information after Wave 1 than before. In Wave 1 there was a decrease in the percentage reporting that it is important for police to enforce the hand-held cell law in both Hartford and control areas, but much of the decrease was restored by Wave 2. There was a pre to post increase in the Hartford area in Wave 1 for reports of having ever gotten a cell phone ticket. Similarly there was a pre to post (Wave 1 only) increase in reports of getting a ticket in the past month (for the control area also).

During Wave 2 there was an increase in the percentage of respondents in the Hartford area who heard about enhanced police enforcement. There was no such increase during Wave 1, but there was an overall gain between the waves. There were no significant effects for the control area.

During Wave 1 there was actually a decrease in the percentage of people having heard about distracted driving in general (both areas) but in Wave 2 there was a large increase (pre to post) in recognition for the Hartford area (but not the control area).

Awareness of the *Phone in One Hand, Ticket in the Other* slogan started at 5% in the pre of Wave 1. Following the first wave, recognition rose significantly to 32%. There was also a significant increase in the control area but not of the same magnitude (5% to 11%). Wave 2 led to further increases in recognition in the Hartford areas (27% to 47%). There was no increase in the control areas (8% to 10%).

Recognition of other slogans was not as high. The other most recognized slogan in the Hartford area following Wave 2 was *I-Promise Not to Drive Distracted* which was recognized by 15% of respondents. A local TV station (WFSB) has been running messages with this slogan between enforcement waves. Ten percent of the respondents recognized *Hang Up or Pay Up,* an enforcement type distracter slogan not in use in the area. Recognition of Oprah Winfrey's *No Phone Zone* was at 8%.

There was an increase in Wave 1 for judgments of frequency of cell phone use while driving, with no effect for the control group. The effect dissipated by Wave 2 -- the Wave 2 pre and post measures were much lower than the post of Wave 1. There was also a significant increase in self-reported texting during the first wave in the Hartford area. During the second wave there was a significant decrease in reported use by the control area respondents.

Self-Reported Cell Phone Use and Program Awareness in New York

Overall, Syracuse respondents knew about the enforcement and messaging campaign. Drivers in Syracuse reported having heard about the cell phone enforcement with significant pre to post increases for each wave. They also reported hearing about distracted driving (in general) more in the post of Wave 1 than in the pre of Wave 1 and this was also true in Albany. There was also an increase in self-reported tickets within the last month for Wave 1 in Syracuse. There was an increase in both waves for perceived strictness of police enforcement in Syracuse while there was a significant decrease during Wave 1 in Albany, the control site.

Unexpectedly, self-reported hand-held cell phone use increased from pre to post in Wave 1 in Syracuse. Albany's rates stayed the same. There were no changes in self-reported texting while driving.

Recognition of the main message, *Phone in One Hand, Ticket in the Other,* increased 32 percentage points in Syracuse (5% to 37%). The rates were flat in Albany, going from 4% to 5%.

Slogan recognition for Syracuse went from 5% to 21%. It is likely that recognition would have been even higher immediately following the campaign. Indeed, the recognition was at 37% following Wave 1. Rates in Albany, the control site, stayed the same going from 4% to 5%.

Recognition of other slogans was considerably lower at the end of Wave 2 in Syracuse. For example *Hang Up or Pay Up,* (not in use in the area) was 11%. Eight percent of the respondents recognized Oprah Winfrey's *No Phone Zone.*

There was an unexpected increase from pre to post in the first wave in Syracuse respondents' judgment of how frequently they use a hand-held phone while driving, similar to the findings in Hartford. This increase was not present in Albany, and was not present in the second wave in either area. Self-reported cell phone use rates for both pre and post in the second wave were lower than the post in the first wave for Syracuse. Figures 4 through 8 show public awareness findings for Syracuse, Hartford, and the control sites over both waves.

Figure 4
In the Past Month, Have You Seen or Heard About Distracted Driving in [Connecticut/New York]?

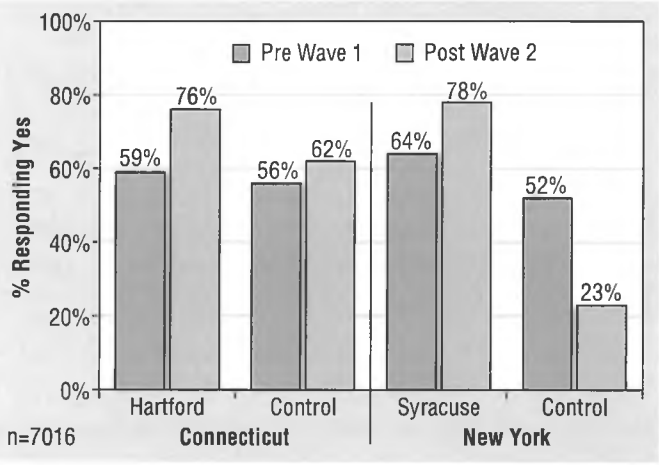


Figure 5
Awareness of "*Phone in One Hand, Ticket in the Other*" Slogan in Connecticut and New York

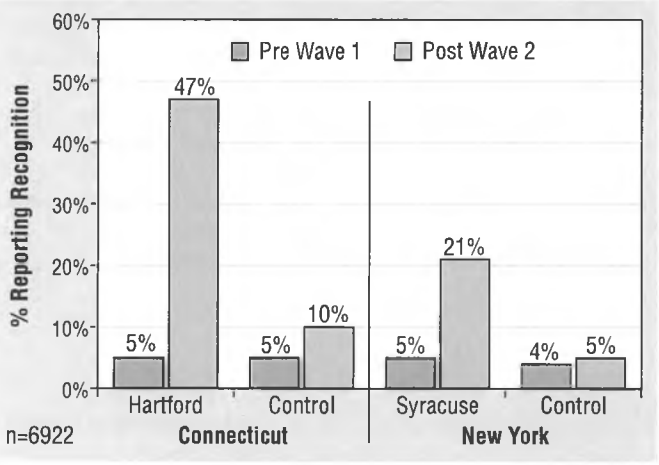


Figure 6
What do you think the chances are of getting a ticket if you use a hand-held cellular phone while driving?

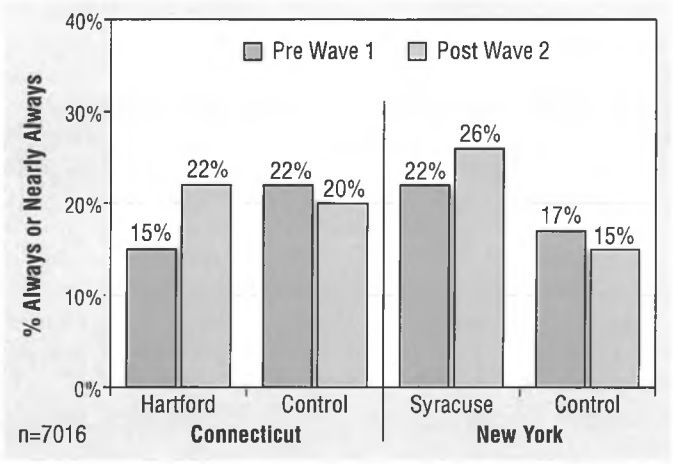


Figure 7
Strictness of Enforcement of Hand-Held Phone Law

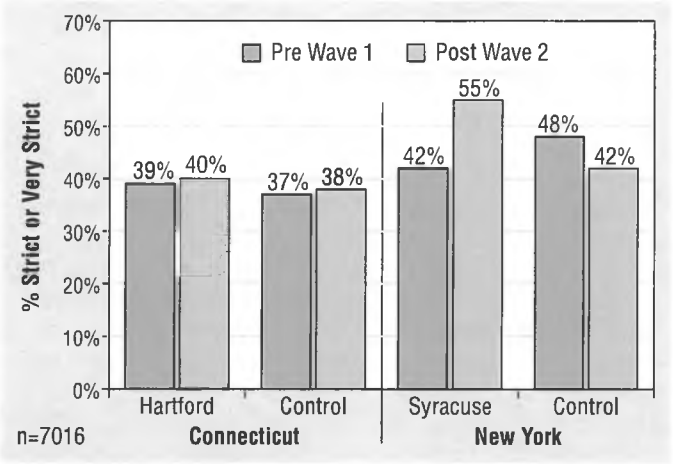
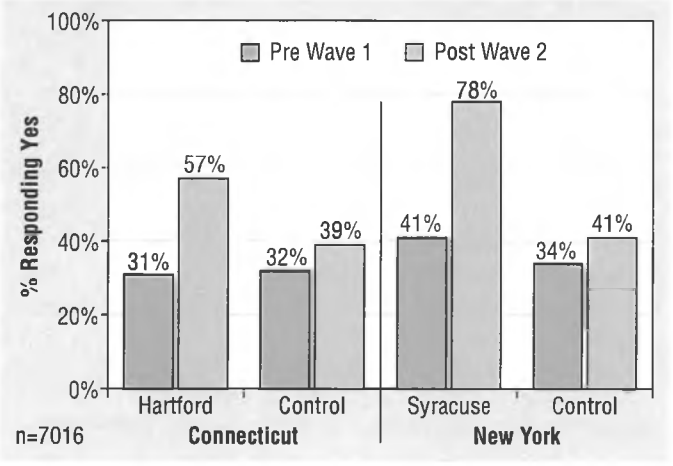


Figure 8
In the past month, have you seen or heard about police enforcement focused on hand-held cellular phone use?



Discussion

The most apparent finding from the first two waves of NHTSA's distracted driving demonstration programs in Syracuse and Hartford is that awareness about cell phone use and texting is remarkably high. About 6 in 10 in both communities had heard something about distracted driving, even before the new *Phone in One Hand, Ticket in the Other* advertisements aired. This most likely reflects the influx in media discussing the issue. Insurance companies, mobile phone providers, and safety organizations have been addressing the dangers of using a cell phone and texting while driving, especially for teens, and have sponsored advertisements on national television. State legislatures have passed texting and cell phone bans. The U.S. Department of Transportation held a summit in Washington, DC, in September 2009 bringing together over 250 researchers, government agencies, industry representatives, public advocates, and elected officials to discuss what could be done to reduce the preventable deaths and injuries that distracted driving is causing in America. The President issued an Executive order advising Federal workers to "put it down." In January 2010 Oprah started the *No Phone Zone* and on April 30, the Oprah Winfrey Show launched a "No Phone Zone Day" with a live TV broadcast, rallies in six cities – Atlanta, Boston, Detroit, Chicago, Los Angeles, and Washington – and a national public service announcement campaign.

Despite the national attention and motorists' beliefs that distracted driving by others is a dangerous activity, surveys show that motorists are willing to engage in the behavior themselves. Changing driver behavior presents a challenge, but high visibility enforcement campaigns are a proven countermeasure in a variety of traffic safety areas. The intent of a high visibility enforcement campaign is not to issue tickets. Rather, the intent is to deter drivers from engaging in that particular behavior in the first place. In order words, if drivers violate a particular law, there should be a high certainty that they will receive a ticket. While issuing one citation to a motorist may persuade that person to avoid that offense in the future (known as specific deterrence), highly visible enforcement seeks to have 100 or 1,000 other drivers know about that one citation so they choose to avoid that behavior (general deterrence).

The new slogan, *Phone in One Hand, Ticket in the Other,* proved effective in conveying the message of increased cell phone enforcement to the public. Nearly 50% of respondents in Hartford and 20% in Syracuse reported that they had seen and heard about the program after just the first wave of the program. People reported having heard about the enforcement, recognized the increased strictness of the police, and thought that their chance of getting a ticket if they used a hand-held cell phone increased. An interesting anomaly in the public awareness data is that self-reported use of a hand-held cell phone actually increased during the first wave, before finally decreasing at the end of the second wave. One

explanation is that drivers were becoming more aware of their cell phone use while driving because of the increased media. There was strong public support for the program, with 8 out of 10 drivers believing that it is important for the police to enforce the hand-held cell phone law.

Observed cell phone use decreased in both sites by the end of the second wave of the *Phone in One Hand, Ticket in the Other* demonstration program. Before the distracted driving programs began, observed cell phone use in Syracuse was about half that of the rest of the Nation and Connecticut was close to average. Both States have had hand-held cell phone bans while driving for some time – 2001 for New York and 2005 for Connecticut. After the second wave of the high visibility enforcement campaign, hand-held cell phone use decreased 38% in Syracuse (from 3.7% to 2.3%) and 58% in Hartford (from 6.8% to 3.1%). The laws alone may have served to keep these States at or below the national average, but the addition of high visibility enforcement and media emphasizing the enforcement drove the rates down even lower. High levels of national media and celebrity attention to distracted driving, such as by the *Oprah Winfrey Show,* may account for some of the high public awareness of the issue and for the steady declines in observed hand-held cell phone use in the control sites and among women in three of the five sites overall.

Unlike other periodic traffic safety campaigns, there was no rebound or ratcheting effect during the period between waves where the observed behavior reverted close to previous levels. It remains to be seen whether this trend will continue throughout the remaining two waves, but it is promising and suggests that social norms towards phone use and texting are shifting towards finding it as unacceptable as driving while impaired by alcohol.

The law enforcement agencies in both sites exceeded program expectations. Ticketing rates of about 20 citations per 10,000 population are common benchmarks for effective belt enforcement programs, a rate deemed sufficient to change motorists' behaviors. Enforcement rates for the distracted driving demonstration programs in Syracuse and Hartford were more than five times that benchmark. Officers reported that they were enthusiastic about the dedicated advertising that focused on their increased enforcement. They reported that coordinated enforcement activities with neighboring law enforcement agencies expanded the visibility of their enforcement efforts. They reported positive public reactions -- the general theme was that "it was about time."

There are challenges to enforcing hand-held cell phone and texting bans. The most obvious challenge is the difficulty in observing the offense. Syracuse law enforcement officers preferred roving patrols and found higher observation locations or taller vehicles like SUVs useful in seeing down into a passenger vehicle to observe texting offenses. Hartford officers found the spotter, or stationary, strategy effective but both chose strategies that suited their community and resources and both used other strategies as well. Because this was a demonstration program, additional reporting paperwork was required. The Hartford officers felt that their post ticketing paper work was more time consuming than a seat belt ticket but they are working to improve the process in time for the third wave.

There are two additional waves of enforcement planned in Hartford and Syracuse. The third wave will begin in October 2010; the fourth and final wave will occur in the spring of 2011. At the conclusion of the fourth wave, NHTSA's Office of Behavioral Safety Research will prepare a final report detailing all four waves.

References

Blumberg, S. J., & Luke, J. V. (2010). Wireless Substitution: Early Release of Estimates from the National Health Interview Survey, July–December 2009. Hyattsville, MD: National Center for Health Statistics. Available at www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201005.pdf.

Clarke, S. (2010, April 15). Shut Up and Drive: Feds Target Talking, Texting Behind the Wheel. New York: ABC News Internet Ventures. Available at http://abcnews.go.com/print?id=10377741.

CTIA—The Wireless Association. (2009). Annualized U.S. Wireless Industry Survey Results - June 1985 to June 2009. Available at files.ctia.org/pdf/CTIA_Survey_Midyear_2009_Graphics.pdf.

Governor's Highway Safety Association (GHSA). (2010). Cell Phone and Texting Laws: September 2010. http://www.ghsa.org/html/stateinfo/laws/cellphone_laws.html.

Horrey, W. J., & Wickens, C. D. (2006). Examining the impact of cell phone conversations on driving using meta-analytic techniques. Human Factors, 48, 196-205.

National Highway Traffic Safety Administration (2010, April). Overview of the National Highway Traffic Safety Administration's Driver Distraction Program. DOT HS 811 299. Washington, DC: National Highway Traffic Safety Administration, Washington, Available at www.distraction.gov/files/dot/6835_DriverDistractionPlan_4-14_v6_tag.pdf.

Pickrell, T. M., & Ye, T. J. (2009, September). Driver Electronic Device Use in 2008. Traffic Safety Facts Research Note. DOT HS 811 184. Washington, DC: National Highway Traffic Safety Administration. Available at www-nrd.nhtsa.dot.gov/Pubs/811184.pdf.

San Miguel, M. (Reporter). (2010, April 25). New Program Aims to End Distracted Driving. ABC News Video [Television news broadcast]. New York: ABC News. Available at abcnews.go.com/US/video/program-end-distracted-driving-10738019.

U.S. Department of Transportation. (2010, April 8). Transportation Secretary Ray LaHood Announces First Enforcement Crackdown Campaign on Distracted Driving. Press release. Washington, DC: Department of Transportation. Available at www.distraction.gov/files/for-media/4.08.10-Demo.pdf.

100-Car Naturalistic Study Fact Sheet

VirginiaTech TRANSPORTATION INSTITUTE
DRIVING TRANSPORTATION WITH TECHNOLOGY

Setting up the Study

Study Sponsors:
- National Highway Traffic Safety Administration (NHTSA)
- Virginia Department of Transportation (VDOT)
- Virginia Transportation Research Council (VTRC)
- Virginia Tech (VT)

Study Parameters:
- 109 primary drivers, 241 total drivers (primary plus secondary)
- Northern Virginia/Metropolitan Washington, DC area
- 12 – 13 months of data collection
- Drivers' ages ranging from 18 to 73 years old; 60 percent male; 40 percent female

100-Car Study Features:
- First large-scale instrumented-vehicle study undertaken with the primary purpose of collecting pre-crash and near-crash naturalistic driving data.
- Captured a range of severity of crashes from airbag deployments to minor, low-force, no-property-damage crashes.
- First study to collect detailed information on a large number of near-crash events.
- Drivers were given no special instructions and no experimenter was present.
- Vehicles were used for general purpose driving.
- Data collection instrumentation was unobtrusive.

Data Collection Instrumentation Included:
- Five channels of digital, compressed video
- Front and rear radar sensors
- Accelerometers
- Machine vision-based lane tracker
- GPS
- Vehicle speed sensor

The Database:
- Contains many extreme driving cases, including severe drowsiness, impairment, judgment error, risk taking, secondary task engagement, aggressive driving and traffic violations
- Each safety-related conflict was classified as one of the following:
  - Crash – any physical contact between the subject vehicle and another vehicle, fixed object, pedestrian, pedalcyclist or animal
  - Near-Crash – situations requiring a rapid, severe evasive maneuver to avoid a crash
  - Incident – situations requiring an evasive maneuver occurring at less magnitude than a near-crash

Top Level Database Statistics
- Approximately 2,000,000 vehicle miles of driving
- 42,300 hours of driving data
- 15 police-reported and 67 non-police-reported crashes
- 761 near-crashes
- 8,295 incidents

Types of Driving Behavior Recorded:
- Drowsiness
- Driver Inattention
- Traffic violations
- Aggressive driving and "road rage"
- Seat belt usage

Discoveries

Driver Inattention:
- Nearly 80 percent of all crashes and 65 percent of all near-crashes involved driver inattention (due to distraction, fatigue, or just looking away) just prior to (i.e., within 3 seconds) the onset of the conflict.

Rear-End-Striking Crashes:
- Visual inattention was a contributing factor for 93 percent of rear-end-striking crashes.
- In 86 percent of rear-end-striking crashes, the headway at the onset of the event was greater than 2.0 s.
- Most near crashes involving conflict with a lead vehicle occurred while the lead vehicle was moving, while 100 percent of the crashes (14 total) occurred when the lead vehicle was stopped. This indicates that drivers are sufficiently aware and able to perform evasive maneuvers when closing rates are lower and/or expectancies about traffic are not violated.

Age-Related:
- Judgment error, including secondary task performance in higher risk situations, driving while impaired, and other instances of aggressive driving, was much more prevalent in the youngest age group (i.e., 18 to 20 years) relative to the older age groups.
- The rate of inattention-related crash and near-crash events decreased dramatically with age, with the rate being as much as four times higher for the 18- to 20-year-old age group relative to the older groups (i.e., 35+ years).

Hand-Held Wireless Devices:
- Primarily cellular telephones, but included a small amount of PDA use.
- Associated with the highest frequency of distraction-related events for both incidents and near-crashes.

Driver Drowsiness:
- Contributing factor in 20 percent of all crashes and 16 percent of all near-crashes, while most current database estimates place fatigue-related crashes at a much lower percent (i.e., under 10 percent) of total crashes.

NHTSA People Saving People

For more information, contact the VTTI Communications Office
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VTRC Virginia Transportation Research Council

100-Car Naturalistic Study Fact Sheet

Virginia Tech Transportation Institute
DRIVING TRANSPORTATION WITH TECHNOLOGY

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Rebecca Rooney

From: Cashen, Cindy L (DOT) [cindy.cashen@alaska.gov]
Sent: Friday, February 25, 2011 4:50 PM
To: Charles Boyle; Ted Madsen; Kendra Kloster; Noah Hanson; Rebecca Rooney; Nancy Barnes
Cc: Hewitt, Brenda (DOT sponsored)
Subject: Distracted Driving NHTSA report and AK surveys
Attachments: 2010 NHTSA Education-Enforcement CT-NY.pdf

Good evening:

I have attached a NHTSA study of distracted driving education/enforcement efforts. A summary of the results is on Page 8:
Observed cell phone use decreased in both sites by the end of the second wave of the *Phone in One Hand, Ticket in the Other* demonstration program. Before the distracted driving programs began, observed cell phone use in Syracuse was about half that of the rest of the Nation and Connecticut was close to average. Both States have had hand-held cell phone bans while driving for some time – 2001 for New York and 2005 for Connecticut. After the second wave of the high visibility enforcement campaign, **hand-held cell phone use decreased 38% in Syracuse (from 3.7% to 2.3%) and 58% in Hartford (from 6.8% to 3.1%).**

In a 2010 AK survey, 61% of 400 participants admitted to talking on their cell phone while driving and 86% never text while driving. This and more information can be found on the "Alaska 2010 Highway Safety Phone Survey Report", particularly on pages 8-9:
http://www.dot.state.ak.us/stwdplng/hwysafety/stats.shtml

In a 2010 AK observational survey of 26,731 vehicle occupants, **a cell phone usage rate for drivers was 5.1%.** The observed usage rates by borough were: MatSu 8.0%, Kenai/Soldotna 6.0%, Anchorage 5.0%, Fairbanks 4.9%, and Juneau 2.0%. The surveyors observed a total of 26,731 vehicle occupants (21,339 drivers and 5,392 outboard passengers) in 2010. Thirty-five percent (35%) of the observed vehicles were cars, 32% sport utility vehicles (SUV), 26% trucks, and 7% were vans. This and more information can be found on the "2010 Observational Seatbelt Survey from the Alaska Injury Prevention Center (AIPC), page 9:
http://www.dot.state.ak.us/stwdplng/hwysafety/stats.shtml

Sincerely,
Cindy

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AN OVERVIEW OF THE 100-CAR NATURALISTIC STUDY AND FINDINGS

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Jeremy Sudweeks
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National Highway Traffic Safety Administration
United States
Paper Number 05-0400

ABSTRACT

A key to the development of effective crash countermeasures is an understanding of pre-crash causal and contributing factors. This research effort was initiated to provide an unprecedented level of detail concerning driver performance, behavior, environment, driving context and other factors that were associated with critical incidents, near crashes and crashes for 100 drivers across a period of one year. A primary goal was to provide vital exposure and pre-crash data necessary for understanding causes of crashes, supporting the development and refinement of crash avoidance countermeasures, and estimating the potential of these countermeasures to reduce crashes and their consequences.

The 100-Car Naturalistic Driving Study database contains many extreme cases of driving behavior and performance, including severe fatigue, impairment, judgment error, risk taking, willingness to engage in secondary tasks, aggressive driving, and traffic violations. The data set includes approximately 2,000,000 vehicle miles, almost 43,000 hours of data, 241 primary and secondary drivers, 12 to 13 months of data collection for each vehicle, and data from a highly capable instrumentation system including five channels of video and vehicle kinematics. From the data, an "event" database was created, similar in classification structure to an epidemiological crash database, but with video and electronic driver and vehicle performance data. The events are crashes, near crashes and other "incidents." Data was classified by pre-event maneuver, precipitating factor, event type, contributing factors, and the avoidance maneuver exhibited. Parameters such as vehicle speed, vehicle headway, time-to-collision, and driver reaction time are also recorded.

This paper presents the 100-Car Naturalistic Driving Study method, including instrumentation and vehicle characteristics, and a sample of study results. Presented analyses address the driver characteristics, the role of inattention and distraction in rear-end and lane change events. In addition, the methodological attributes of naturalistic data collection and the implications for a larger-scale naturalistic data collection effort are provided.

INTRODUCTION

Although the crash rate is declining, the number of driving related deaths is approximately 43,000 per year. While the development of mechanistic safety features, such as seat belts, air bags, and collapsible steering wheels, have been extremely important in lowering the vehicle-related death rate, it is plausible that the next significant decrease in roadway fatalities will require systems to assist drivers in preventing crashes. However, driver assistance systems require a more precise understanding of the driver behaviors prior to an adverse driving event to be more effective.

Data collected to study driver behavior have historically relied on epidemiological, simulator, and test track studies. While these are valuable techniques that certainly have their place in the study of driver behavior, they are not well suited to explain the combination of factors leading to an adverse driving event. For example, a police crash report form might list the cause of a rear-end collision as "following too close." However, contributing factors might be fatigue, distraction, traffic backed up from the intersection, and/or a blind corner leading up to the same intersection. For this hypothetical case, there are both driver and infrastructure related causes of the event. Likewise, simulator and test track studies cannot mimic the combination of complex driving environments and the simultaneous array of driver behaviors that lead to many events.

As demonstrated in only a small handful of studies, naturalistic data collection fills the gap in current data collection methods. "Naturalistic" data includes data from a suite of vehicle sensors and

unobtrusively placed video cameras. The drivers are given no special instructions, no experimenter is present, and the data collection instrumentation is unobtrusive. This naturalistic data collection method was applied to study fatigue and resulting driver performance in truck drivers making local/short haul deliveries [1] In this study, 42 drivers drove 4 instrumented vehicles while they made deliveries. The study resulted in approximately 1000 hours of data that included five video views and a host of vehicle sensor data.

In a long-haul truck driving study, naturalistic data was collected from 56 single and team drivers who drove one of two instrumented vehicles [2]. Data was collected to assess sleep quality, driver alertness, and driver performance on normal revenue-producing trips averaging up to eight days in length. This data collection effort resulted in 250 hours of data that was triggered based upon vehicle sensor data. The results showed that single drivers suffered the worst bouts of fatigue and had the most severe critical incidents (by about 4 to 1).

A key to the development of effective crash countermeasures is an understanding of pre-crash causal and contributing factors. This research effort was initiated to provide an unprecedented level of detail concerning driver performance, behavior, environment, driving context and other factors that were associated with critical incidents, near crashes and crashes for 100 drivers across a period of one year. A primary goal was to provide vital exposure and pre-crash data necessary for understanding causes of crashes, supporting the development and refinement of crash avoidance countermeasures, and estimating the potential of these countermeasures to reduce crashes and their consequences.

The 100-Car Naturalistic Driving Study (100-Car Study) was the first instrumented vehicle study undertaken with the primary purpose of collecting large-scale naturalistic driving data. Unique to the 100-Car Study was that the majority of the drivers drove their own vehicles (78 out of 100 vehicles). There is every indication that the drivers rapidly disregarded the presence of the instrumentation, as is indicated by the resulting database containing many extreme cases of driving behavior and performance including: severe fatigue, impairment, judgment error, risk taking, willingness to engage, aggressive driving, and traffic violations (just to name a few). These types of driving events have been heretofore greatly attenuated by other empirical techniques.

Due to the scale of the 100-Car Study and the fact that private vehicles were instrumented, new techniques had to be created and existing methods modified to make the study successful. The data collection effort resulted in the following data set contents:

- Approximately 2,000,000 vehicle miles
- Almost 43,000 hours of data
- 241 primary and secondary drivers participated
- 12 to 13 month data collection period for each vehicle
- Five channels of video and many vehicle state and kinematic variables

This paper presents a sample of the analysis results from the 100-Car Study data collected. The full study report is available through the National Highway Traffic Safety Administration [3].

METHOD

Instrumentation

The 100-Car instrumentation package was engineered by VTTI to be rugged, durable, expandable, and unobtrusive. It constituted the seventh generation of hardware and software, developed over a 15 year period that has been deployed for a variety of purposes. The system consisted of a Pentium-based computer that received and stored data from a network of sensors distributed around the vehicle. Data storage was achieved via the system's hard drive, which was large enough to store data for several weeks of driving before requiring data downloading.

Each of the sensing subsystems in the car was independent, so that any failures that occurred were constrained to a single sensor type. Sensors included a vehicle network box that interacted with the vehicle network, an accelerometer box that obtained longitudinal and lateral kinematic information, a headway detection system to provide information on leading or following vehicles, side obstacle detection to detect lateral conflicts, an incident box to allow drivers to flag incidents for the research team, a video-based lane tracking system to measure lane keeping behavior, and video to validate any sensor-based findings. The video subsystem was particularly important as it provided a continuous window into the happenings in and around the vehicle. This subsystem included five camera views monitoring the driver's face and driver side of the vehicle, the forward view, the rear view, the passenger side of the vehicle, and an over-the-shoulder view for the driver's hands and surrounding areas. An important feature of the video system is

that it was digital, with software-controllable video compression capability. This allowed synchronization, simultaneous display, and efficient archiving and retrieval of 100-Car data. A frame of compressed 100-Car video data is shown in Figure 1.

The modular aspect of the data collection system allowed for integration of instrumentation that was not essential for data collection, but which provided the research team with additional and important information. These subsystems included automatic collision notification that informed the research team of the possibility of a collision; cellular communications that were used by the research team to communicate with vehicles on the road to determine system status and position; system initialization equipment that automatically controlled system status; and a GPS positioning subsystem that collected information on vehicle position. The GPS positioning subsystem and the cellular communications were often used in concert to allow for vehicle localization and tracking.

Figure 1. A compressed video image from the 100-Car data. The driver's face (upper left quadrant) is distorted to protect the driver's identity. The lower right quadrant is split with the left-side (top) and the rear (bottom) views.

The system included several major components and subsystems that were installed on each vehicle. These included the main Data Acquisition System (DAS) unit that was mounted under the package shelf for the sedans (Figure 2) and behind the rear seat in the SUVs.

Doppler radar antennas were mounted behind special plastic license plates on the front and rear of the vehicle (Figure 3). The location behind the plates allowed the vehicle instrumentation to remain inconspicuous to other drivers.

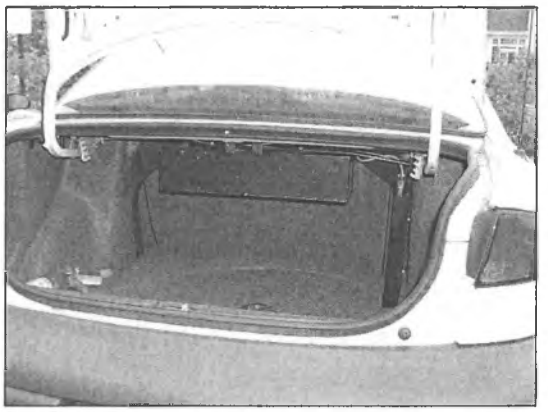

Figure 2. The main Data Acquisition System (DAS) unit mounted under the "package shelf" of the trunk.

Figure 3. Doppler radar antenna mounted on the front of a vehicle, covered by one of the plastic license plates used for this study.

The final major components in the 100-Car hardware installation were mounted above and in front of the center rear-view mirror. These components included an "incident" pushbutton box which housed a momentary pushbutton that the subject could press whenever an unusual event happened in the driving environment. Also contained in the housing was an unobtrusive miniature camera that provided the driver face view. The camera was invisible to the driver since it was mounted behind a "smoked" Plexiglas cover.

Mounted behind the center mirror were the forward-view camera and the glare sensor (Figure 4). This location was selected to be as unobtrusive as possible and did not occlude any of the driver's normal field of view.

Figure 4. The incident push button box mounted above the rearview mirror. The portion on the right contains the driver face/left vehicle side camera hidden by a smoked plexiglass cover.

Subjects

One-hundred drivers who commuted into or out of the Northern Virginia/Washington, DC metropolitan area were initially recruited as primary drivers to have their vehicles instrumented or receive a leased vehicle for this study. Drivers were recruited by placing flyers on vehicles as well as by placing newspaper announcements in the classified section. Drivers who had their private vehicles instrumented (78) received $125.00 per month and a bonus at the end of the study for completing necessary paperwork. Drivers who received a leased vehicle (22) received free use of the vehicle, including standard maintenance, and the same bonus at the end of the study for completing necessary paperwork. Drivers of leased vehicles were insured under the Commonwealth of Virginia policy.

As some drivers had to be replaced for various reasons (for example, a move from the study area or repeated crashes in leased vehicles), 109 primary drivers were included in the study. Since other family members and friends would occasionally drive the instrumented vehicles, data were collected on 132 additional drivers.

A goal of this study was to maximize the potential to record crash and near-crash events through the selection of subjects with higher than average crash- or near-crash risk exposure. Exposure was manipulated through the selection of a larger sample of drivers below the age of 25, and by the selection of a sample that drove more than the average number of miles. The age by gender distribution of the primary drivers is shown in Table 1. The distribution of miles driven by the subjects during the study appears as Table 2. As presented, the data are somewhat biased compared to the national averages in each case, based on TransStats, 2001 [4]. Nevertheless, the distribution was generally representative of national averages when viewed across the distribution of mileages within the TransStats data.

One demographic issue with the 100-Car data sample that needs to be understood is that the data were collected in only one area (i.e., Northern Virginia/Metro Washington, DC). This area represents primarily urban- and suburban driving conditions, often in moderate to heavy traffic. Thus, rural driving, as well as differing demographics within the U.S., are not well represented.

Table 1. Driver age and gender distributions.

	Gender		
Age N % of total	Female	Male	Grand Total
18-20	9 8.3%	7 6.4%	16 14.7%
21-24	11 10.1%	10 9.2%	21 19.3%
25-34	7 6.4%	12 11.0%	19 17.4%
35-44	4 3.7%	16 14.7%	20 18.3%
45-54	7 6.4%	13 11.9%	20 18.3%
55+	5 4.6%	8 7.3%	13 11.9%
Total N Total Percent	43 39.4%	66 60.6%	109 100.0%

Table 2. Actual miles driven during the study.

Actual miles driven	Number of Drivers	Percent of Drivers
0-9,000	29	26.6%
9,001-12,000	22	20.2%
12,001-15,000	26	23.9%
15,001-18,000	11	10.1%
18,001-21,000	8	7.3%
More than 21,000	13	11.9%

A goal of the recruitment process was to attempt to avoid extreme drivers in either direction (i.e., very safe or very unsafe). Self reported historical data indicate that a reasonably diverse distribution of drivers was obtained.

Vehicles

Since 100 vehicles had to be instrumented with a number of sensors and data collection hardware, and since the complexity of the hardware required a number of custom mounting brackets to be manufactured, the number of vehicle types had to be limited for this study. Six different vehicle models were selected based upon their prevalence in the Northern Virginia area. These included five sedan models (Chevrolet Malibu and Cavalier, Toyota Camry and Corolla, and Ford Taurus) and one SUV model (Ford Explorer). The model years were limited to those with common body types and accessible vehicle networks (generally 1995 to 2003). The distribution of these vehicle types was:

- Toyota Camry – 17%
- Toyota Corolla – 18%
- Chevy Cavalier – 17%
- Chevy Malibu – 21%
- Ford Taurus – 12%
- Ford Explorer – 15%

Classification of events

Table 3 provides definitions of traffic "events" that served as a basis for the classifications that follow. The distinction between *near crashes* and *incidents* was based on the subjective assessment of reviewers in concert with kinematic and proximity data associated with adjacent vehicles or objects.

RESULTS

Table 4 shows the relative frequency of crashes, near-crashes, and incidents for each conflicts type. Of the 82 crashes, 13 either occurred while the system was initializing after the vehicle ignition was started (approximately 90 seconds), or has incomplete data for other reasons (e.g., camera failure), leaving a total of 69 crashes for which data could be completely reduced. These data also included 761 near-crashes and 8,295 incidents. The first eight conflict types shown in Table 4 accounted for all of the crashes, 87 percent of the near-crashes and 93 percent of the incidents.

Table 3. Classification of Events.

Event Category	Definition
Crashes	Any contact between the subject vehicle and another vehicle, fixed object, pedestrian pedacyclist, animal
Near Crashes	Defined as a conflict situation requiring a rapid, severe evasive maneuver to avoid a crash.
Incidents	Conflict requiring an evasive maneuver, but of lesser magnitude than a near crash

It is important to note that all of the crashes, including low speed collisions that were not police reported, are shown in Table 5. A "crash" was operationally defined as "any measurable dissipation or transfer of energy due to the contact of the subject vehicle with another vehicle or object." A benefit of the naturalistic approach is that it was possible to record all of these events; however the severity of the crashes must be delineated to better understand the data. Thus, the 69 crashes are parsed into the following four crash categories. Note that 75 percent of the single vehicle crashes were low-g force physical contact or tire strikes; in other words, most of the crashes involved very minor physical contact.

- Level I: Police-reported air bag deployment and/or injury
- Level II: Police-reported property damage only
- Level III: Non-police-reported property damage only
- Level IV: Non-police-reported low-g physical contact or tire strike (greater than 10 mph)

Since it was possible to detect all crashes regardless of severity, it is interesting to note the large number of drivers who experienced one or more collisions during the 12 to 13 month data collection period. Of all drivers, 7.5% of drivers never experienced an event of any severity. In contrast, 7.4% of the drivers experienced many incidents and 3 or 4 crashes. Thus, a handful of subjects were either very risky drivers or very safe, with the majority of drivers demonstrating a relatively normal distribution of events across the data collection period.

Table 4. Number of crashes, near-crashes, and incidents for each conflict type.

Conflict Type	Crash	Near-crash	Incident
Single vehicle	24	48	191
Lead-vehicle	15	380	5783
Following vehicle	12	70	766
Object/obstacle	9	6	394
Parked vehicle	4	5	83
Animal	2	10	56
Vehicle turning across subject vehicle path in opposite direction	2	27	79
Adjacent vehicle	1	115	342
Other	0	2	13
Oncoming traffic	0	27	184
Vehicle turning across subject vehicle path in same direction	0	3	10
Vehicle turning into subject vehicle path in same direction	0	28	90
Vehicle turning into subject vehicle path in opposite direction	0	0	1
Vehicle moving across subject vehicle path through intersection	0	27	158
Merging vehicle	0	6	18
Pedestrian	0	6	108
Pedalcyclist	0	0	16
Unknown	0	1	3

Table 5. Crash type by crash severity level.

Conflict Type	Total	Level I	Level II	Level III	Level IV
Single vehicle	24	1	0	5	18
Lead-vehicle	15	1	3	5	6
Following vehicle	12	2	2	5	3
Object/obstacle	9	0	1	3	5
Parked vehicle	4	0	0	2	2
Animal	2	0	0	0	2
Oncoming vehicle turning across subject vehicle path	2	1	1	0	0
Adjacent vehicle	1	0	0	1	0

Characterization of Driver Inattention

Historically, driver distraction has been typically discussed as a secondary task engagement. Fatigue has also been described as relating to driver inattention. In this study, it became clear that the definition of driver distraction needed to be expanded to a more encompassing 'driver inattention' construct that includes *secondary task engagement* and *fatigue* as well as two new categories, '*Driving-related inattention to the forward roadway*' and '*non-specific eye glance*'. '*Driving-related inattention to the forward roadway*' involves the driver checking rear-view mirrors or their blind spots. This new category was added after viewing multiple crashes, near-crashes, and incidents for which the driver was clearly paying attention to the driving task, but was not paying attention to the *critical aspect* of the driving task (i.e., forward roadway) at an inopportune moment involving a precipitating factor.

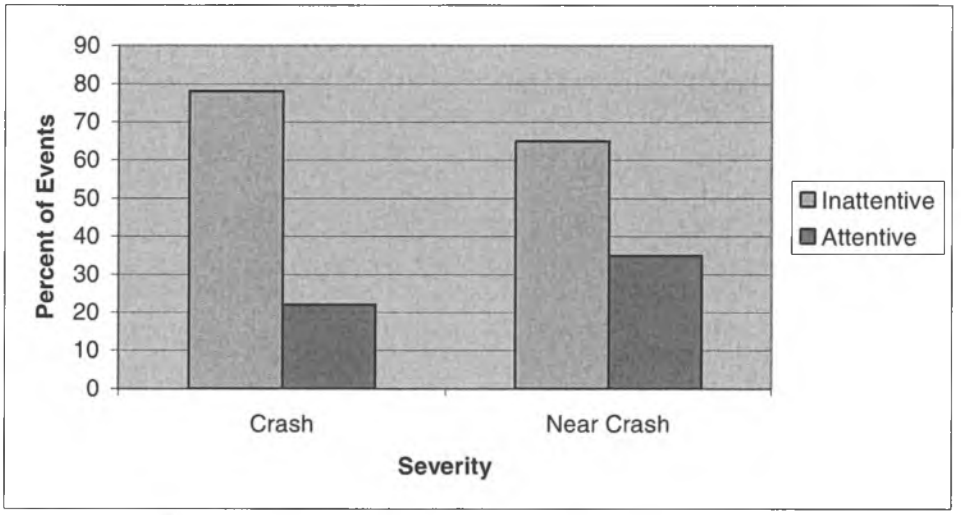

Figure 5. Percentage of events for attention by severity level.

A second analysis of the crashes and near-crashes in the 100-Car database was also conducted using the eye glance analysis performed manually by data reductionists. The *'non-specific eyeglance away from the forward roadway'* describes cases for which drivers glanced, usually momentarily, away from the roadway, but at no discernable object or person. For this project, eye glance reduction was accomplished for crash and near-crash events only, so this category can only be used for the more severe events. The four inattention categories identified above and considered together, suggested that driver's glances away from the forward roadway potentially contribute to a much greater percentage of events than has been previously thought. As shown in Figure 5, 78 percent of the crashes and 65 percent of the near crashes had one of these four inattention categories as a contributing factor.

An analysis of these types of inattention revealed that secondary task distraction was the largest of the four categories. The sources of inattention that generally contributed to the highest percentages of events (Figure 6) were wireless devices (primarily cell phones) internal distractions, and passenger-related secondary tasks (primarily conversations). It is important to note that "exposure," the frequency and duration of inattention associated with each source of inattention, is not considered in these data. Since it is exposure that determines the overall risk of a distraction source, an analysis of frequency of device use is currently being conducted for a future report that will allow calculations of event rates to determine estimates of the relative risk associated with these tasks.

Figure 7 shows a breakdown of the wireless device tasks and associated events. For these data, all of the crashes (about 8.7 percent of total study crashes) and a majority of the near crashes and incidents occurred during a cell phone conversation, although the dialing task was relatively high in term of total conflicts and was associated with the largest number of near crashes for this source of inattention. Although these data are important in that they represent the factors that contribute to events, they also highlight the need for the exposure data described above to establish the degree of risk.

Inattention for Rear End Lead-Vehicle Scenarios

Of particular interest in the analyses of rear-end conflict contributing factors was the prevalence of distraction. An important aspect in rear-end crash countermeasure development is the degree to which an un-alerted driver can be warned and make a proper response. Of course, the 100-Car data can provide great insight into the degree to which distraction is an issue in such conflicts. The important finding in this regard is that 93 percent of all lead vehicle crashes (13 out of 14) involved *inattention to the forward roadway* as a contributing factor (Figure 8). Note also that a majority (68 percent) of the near crashes have inattention identified as a contributing factor.

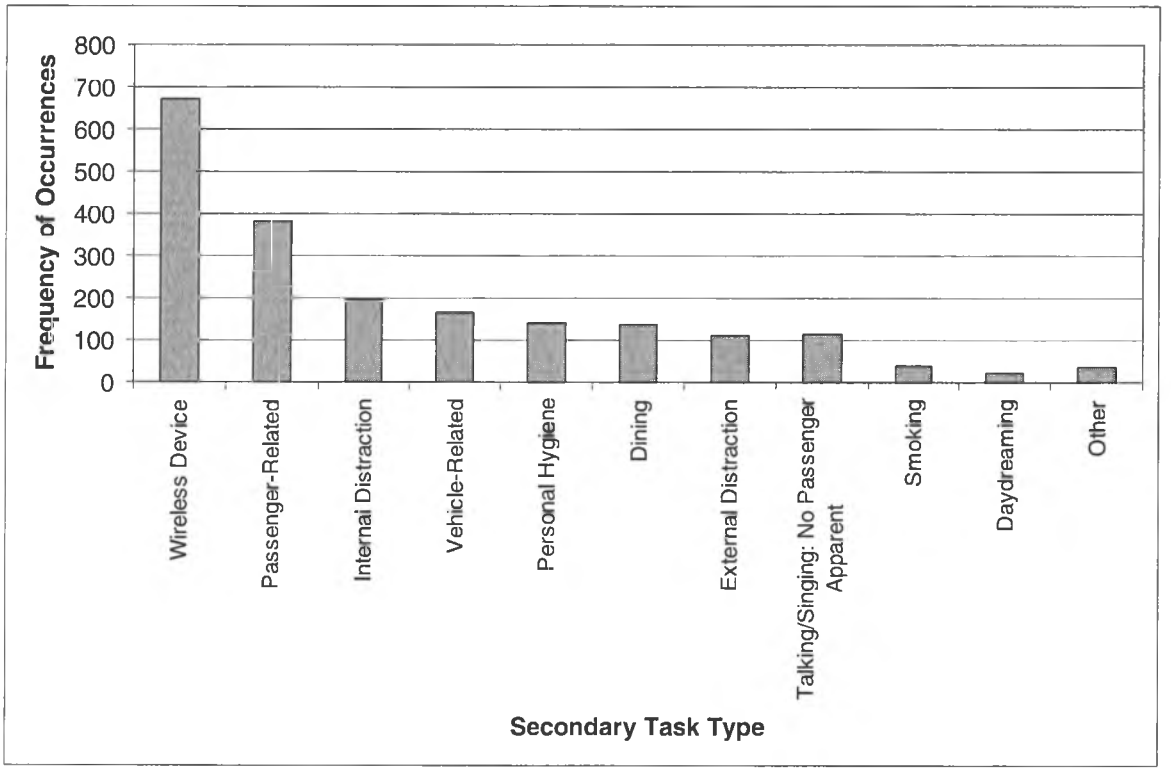

Figure 6. Frequency of occurrence of secondary tasks for crashes, near crashes and incidents.

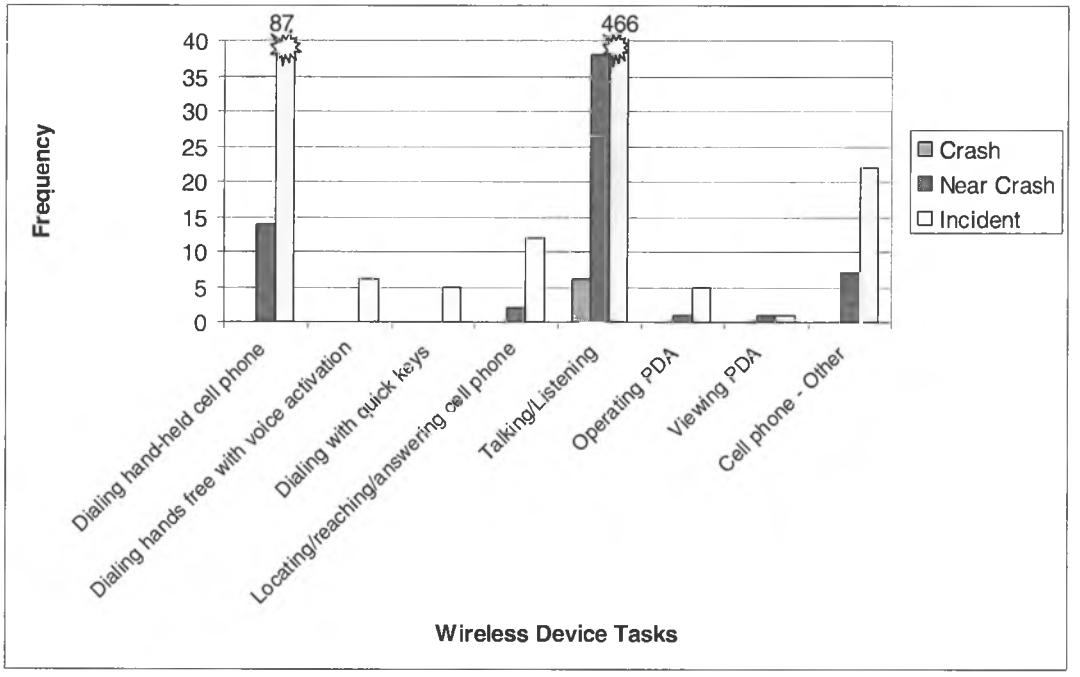

Figure 7. Frequency of occurrences in which the contributing factor was wireless device use by level of severity.

Figure 9 shows the frequency of each source of inattention for each of the secondary tasks. This allows comparison of the actual contribution of each of these sources of inattention to lead vehicle conflicts. Wireless devices (primarily cell phones, but also including PDAs) were the most frequent contributing factor for lead vehicle events, followed by passenger-related inattention. The trend was very similar for near-crashes. Interior distractions were the most frequent source of inattention for crashes.

While cell phone use contributed much more frequently to incidents and near-crashes than any other secondary task, cell phone use did not contribute to any lead vehicle conflict crashes. Nevertheless, cell phone use did contribute to other types of crashes, such as run off road, single vehicle conflict (driver ran into a barricade), and following vehicle conflict (subject vehicle was struck).

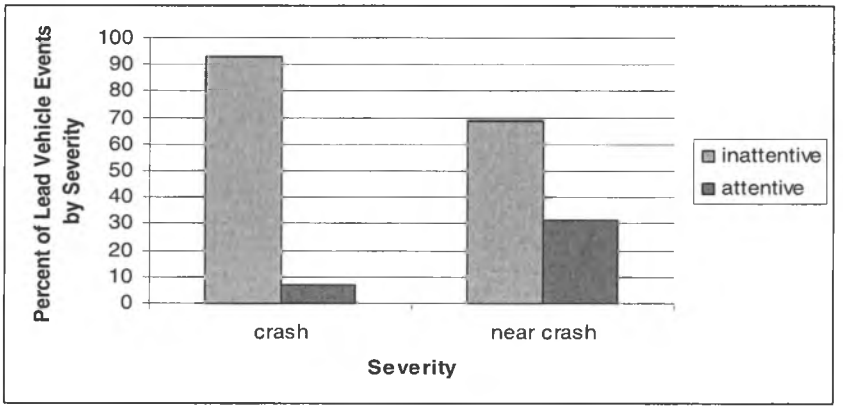

Figure 8. Percent of lead vehicle events for which inattention was listed as a contributing factor (includes the non-specific eye glance events for crashes and near crashes).

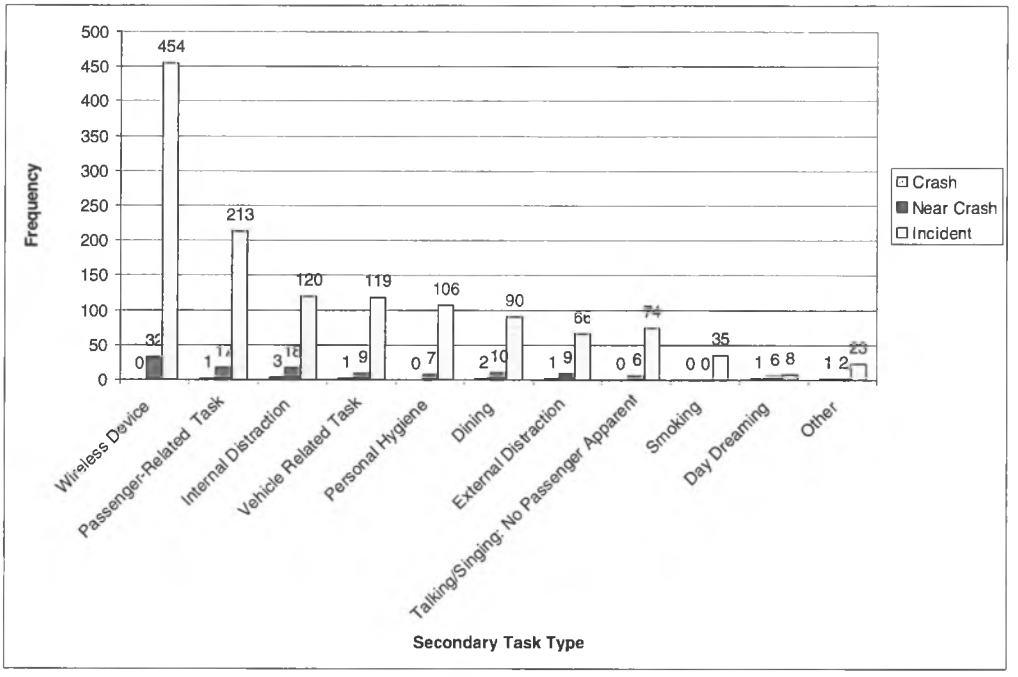

Figure 9. Total frequency of secondary task type by severity.

SUMMARY AND CONCLUSIONS

The event database that was created during the 100-Car Study can be useful for a variety of purposes; for example, evaluation of risky driving behavior and crash risk, calculation of relative risk of engaging in secondary tasks, and evaluation of driver response to lead vehicle brake lights. To facilitate this process, the initial event database will be made publicly accessible via the Internet. In addition, the initial event database can be expanded to address additional issues, since all of the video and electronic data for the entire study have been archived. The 100-Car Study contract specified ten objectives or goals that would be addressed through the initial analysis of the event database. However, as of the time of this writing, there are three additional data reduction and analysis efforts underway for the purpose of addressing another eight goals, and there is considerable interest in using the data for even more purposes. Progressing toward this potential for a multi-purpose, highly flexible and adaptable tool for driving safety may be the most important aspect of this study.

Despite the massive scope of the current effort, it was designed to serve as an exploratory study to a determine the feasibility, value, and methods for initiating a larger, more representative study. From an epidemiological viewpoint, the study was small with the presence of 15 police-reported and 82 total crashes, including minor collisions. Furthermore, drivers were represented from one area of the country (Northern Virginia/Washington, DC metro area). One purpose of a large-scale study would be to have a statistically representative sample of crashes (perhaps 2,000) and a more representative driver/environment sample.

The challenge of a large-scale study is not only the expense of such data collection but the management and analysis of such a large body of data. Nevertheless, it is believed that a large-scale database would be an enormous asset and would be used by transportation researchers for many years to gain insight and understanding into a wide array of driving behavior issues and potentially serve as a basis for decision making and program development within both the government and business sectors. This belief is based upon the robustness of the study results and the expectation that these data will continue to be analyzed and the results made available, from a variety of researchers and research organizations. Clearly, these data can provide unique insights into issues that have eluded the highway safety community for years.

REFERENCES

1. Hanowski, R. J., Wierwille, W. W., Garness, S. A. and Dingus, T. A. (2000). *Impact of local/short haul operations on driver fatigue: Final project report* (DOT-MC-00-203). Washington, DC: Federal Motor Carrier Safety Administration.

2. Dingus, T. A., Neale, V. L., Garness, S. A., Hanowski, R. J., Keisler, A. S., Lee, S. E., Perez, M. A., Robinson, G. S., Belz, S. M., Casali, J. G., Pace-Schott, E. F., Stickgold, R. A., Hobson, J. A. (2001). *Impact of sleeper berth usage on driver fatigue: Final project report* (PB2002-107930). Springfield, VA: NTIS.

3. Dingus, T. A., Klauer, S.G., Neale, V. L., Petersen, A., Lee, S. E., Sudweeks, J., Perez, M. A., Hankey, J., Ramsey, D., Gupta, S., Bucher, C., Doerzaph, Z. R., and Jermeland, J. (In press). *The 100-car naturalistic driving study, Phase II - results of the 100-car field experiment* (Contract No. DTNH22-00-C-07007). Washington, DC: National Highway Traffic Safety Administration.

4. Bureau of Transportation Statistics, TransStats 2001 (http://www.transtats.bts.gov/Databases.asp?Mode_ID=3&Mode_Desc=Highway&Subject_ID2=0)

Rebecca Rooney

From: housemajority_email@housemajority.org
Sent: Wednesday, March 02, 2011 12:16 PM
To: Rep. Peggy Wilson
Subject: HB 22

From: cwrightak@hotmail.com

The chances of someone talking on a cell phone when they are in an accident are greater than before because more people talk on cell phones. That doesn't mean that was the cause of the accident. Statisticians are paid to bend the probabilities to meet the needs of their employer. You can find stats to support anything you want to say in life.
I don't believe this to be a safety issue. I believe this to be a revenue issue. If it was a safety issue the state would begin to enforce the laws already on the books for inattentive/wreckless driving. They would deal with those who are driving poorly regardless of what their distractions are. These bills are designed to allow the state to fine a driver whether they are driving safe or not.
We don't need more laws. We need the ones we have enforced.

~ Chuck Wright
Zip Code: 99705

+--+
DO NOT REPLY DIRECTLY TO THIS EMAIL: your reply will go to enews@housemajority.org To correspond with the author Hit 'Reply' or 'Forward'.
Then change the TO: address to cwrightak@hotmail.com If suspected Spam please forward to: support@housemajority.org
+--+

Rebecca Rooney

From: Ted R [htr@ak.net]
Sent: Wednesday, March 02, 2011 3:25 PM
To: Rep. Peggy Wilson
Cc: Rep. Cathy Munoz
Subject: HB 22

Dear Rep. Wilson:

It was Feb. 2, 2006 when, as a pedestrian, I was hit by a car because the driver was talking on her cell phone. She had a red light and I had both a green light and a "WALK" signal -- and I wouldn't cross at the intersection until I was certain she saw me. And she was looking directly at me when she hit me. I ended up with a concussion and she ended up with a citation.

In view of the above incident, I favor the bill introduced by Rep. Mike Doogan, but being realistic, his HjB 35 probably doesn't stand a chance of passing. Therefore, I am writing to urge you to support HB 22.

Thank you.
Ted Ryberg

Rebecca Rooney

From: Andrea Veach [andrea.veach@yahoo.com]
Sent: Wednesday, March 02, 2011 10:09 PM
To: All Legislators
Subject: HB 35 - Support

Dear Members of the Alaska State Legislature,

I support HB 35. It recognizes it's not enough to get both our hands involved in driving. We need our brains fully engaged, too.

Please vote yes for HB 35.

Thank you.

Andrea Veach
PO Box 90534
Anchorage, Alaska 99509
Phone: 349-7302

Rebecca Rooney

From: Micheal Hill [michealehill@gmail.com]
Sent: Wednesday, March 02, 2011 6:46 PM
To: Rep. Peggy Wilson
Subject: Cell Phone Bill

Dear Representative Wilson,

I was reading the Anchorage Daily News today and read an article on the possibility of banning the use of cell phones while driving. I would like you to know that I strongly support any bill that would help make our roads safer. Just last summer I was in a crosswalk at the bottom of Excel street in Petersburg and had to put my hands on the hood of a pickup and jump out of the way to avoid being struck, I was in the crosswalk, the driver was using a cell phone, he ran the stop sign. To add insult to near injury, on the same day I was on the south end of town just past the Ferry Terminal and has to swerve onto the shoulder to avoid a head on because the driver had crossed the center line while talking on her cell phone, I know both of these people I look at them as good citizens, it's a shame they have bad driving habits. These are two first hand near misses that I have personally experienced, are only a drop in the bucket to the many near misses that I have witnessed in this little town. I have been driving for 40 years, with commercial driving and school bus driving in Washington State and Alaska, I know the laws and rules of the road. What about two hands on the wheel, and no head phones? People with a speaker in their ear, I believe, are breaking the rules with or with holding it. I hope that the Alaska State Legislature can put a bill together that will address this accident waiting to happen problem. I have supported you at the voting booth more than once and I hope you will support a good, strict bill banning drivers from using cell phones or any other distracting device that may help keep and make our roads a bit safer.

I thank you for your time,
Respectfully,

Micheal Hill
PO Box 955
Petersburg, AK 99833

Rebecca Rooney

From: Cashen, Cindy L (DOT) [cindy.cashen@alaska.gov]
Sent: Thursday, March 03, 2011 8:03 AM
To: Kendra Kloster
Cc: Brenda Hewitt; Rebecca Rooney
Subject: Fwd: GPS dashboard units

Hi Kendra,
The following email is NHTSAs response about the level of distraction with GPS dashboard units.
Sincerely,
Cindy

Sent from my iPhone

Begin forwarded message

> **Date:** March 2, 2011 12:32:56 PM AKST
> **To:** cindy.cashen@alaska.gov
> **Subject: RE: GPS dashboard units**
>
> I'm not aware of anything that's been published specific to GPS units. Word from back east is that there is research currently being done on them, and I have a message into someone to find out exactly what sort of research and when it might be completed – I seriously doubt it will be done by the end of Session, but if so I'll holler.
>
> **From:** Cashen, Cindy L (DOT) [mailto:cindy.cashen@alaska.gov]
> **Sent:** Wednesday, March 02, 2011 11:42
> **Subject:** GPS dashboard units
>
> A question about using the GPS dashboard units while driving was asked during yesterday's H TRA committee hearing, but I am unable to find a NHTSA-related study or data that includes GPS units. I'm wondering if you have anything I can provide to the committee about the dangers of using GPS while driving. Any data? I read a couple of press releases by Sec. LaHood, who stated that any distraction is dangerous, and GPS was included, but I need the data that backs up this statement.

Rebecca Rooney

From: Eric Marchegiani [ericmary@mtaonline.net]
Sent: Thursday, March 03, 2011 10:03 AM
To: Rep. Peggy Wilson
Cc: 'Eric Marchegiani'
Subject: HBs on Cell Phone Use

Rep. Wilson:
I understand that you will be considering a number of proposals in restricting the use of cell phones while driving.

Similar to a number of other folks out there, I agree that something needs to be done. I am not a proponent in further regulation by the Government but unfortunately there are a number of younger residents and Adults that really don't know when to use a cell phone and to limit their use of it while driving a car. If it were only for a few seconds to check to see if one need to pick up Johnny at the day care or something from the store, it would likely not be the challenge we have today.. The problem is that folks get on a cell phone and are BS about absolutely nothing while driving down the highway for several minutes if not hours sometimes. Not to mention the stupidity of texting while driving (which is prohibited by law now – but folks still do it). I have even seen some lady reading a paperback in the center of her steering wheel, while she was commuting back to the valley… Crazy.

Unfortunately, due to the lack of common sense by the citizens, it is imperative that some legislation be put in place to require them to act appropriately since they obviously have not come to that realization on their own. Additionally, I personally feel that the Citizens will continue to do what they have in the past unless there are some stiff penalties to insure that they act appropriately. That said I am suggesting the following:

1. Absolutely no cell phone use by anyone under the age of 18 while in a car. This will insure that teens that have this impossible lack of rational ability to be disconnected from the internet and their friends electronically for even seconds will have to be. It will also allow the Police to enforce the NO USE while the teen/s are in a Car easily. It is hard to enforce a law that allows for some use i.e. hands free.. This will make the Police's job that much easier and create a definitive line for teens to follow. Teens presently are already restricted in their ability to operate a motor vehicle until they turn 18 in some manner in Alaska and other states. This just recognizes their inability to truly focus on just one thing.. i.e. driving.
2. I believe that a total ban on the use of cell phones in cars by adults would be and undue burden and likely to cause a huge whiplash effect from the population. That said, there still needs to be some kind of restriction that would limit the use of a cell phone. I am suggesting that if a cell phone is to be used in a car by an adult (age 18 or older) that they must use either a speaker phone or some kind of head-set that allows for hands free operation.
3. Finally, no law is effective unless there is a deterrent that will encourage the Citizens to obey it. Obviously if the Citizens had the common sense to do what is right, the legislature would not need to be dealing with this issue… As such there needs to be a fine for the poor judgment on the part of the driver. The military, i.e. Ft Richardson and Elmendorf have already instituted a law that bans all cell phone use with the exception of hands free use. Any infraction will result in a $50 fine initially. I would recommend the same fine for the initial penalty. To some a $50 fine is nothing and as such, I would suggest that the second time offender would be fined $200. A third offense would be fined at $500. And any repeat

offender after the third time would be cited for endangerment to the population with the appropriate punishment either with Community Service or some Prison time.

All legislation is a sort of compromise with the various interest groups but I believe that this legislation is truly trying to protect not only the person that might be injured due to the lack of focus by a cell phone user but also for the cell phone user themselves. I understand that you job is not easy in balancing everyone's opinion and interest, but at this time I believe the statistics indicate that we definitively need something on the books that restricts cell phone use in vehicles.

It is a privilege to drive(as regulated by the State) not a right – which some folks have not come to grips with.

PS: Please share with the rest of your committee. Thanks for the opportunity to comment.

Sincerely,

Eric & Mary Marchegiani
Chugiak, Alaska

Rebecca Rooney

From: brittb@gci.net
Sent: Tuesday, March 01, 2011 11:55 AM
To: Rep. Peggy Wilson
Cc: Rep. Mike Doogan; Rep. Berta Gardner; Rep. Max Gruenberg; Rep. Cathy Munoz; Rep. Bob Herron
Subject: Cell Phone Bills

Representative Wilson,

I am writing to voice support for HB 35. It is clear that cell phone use impairs driver performance. Hand-free cell phone use is not much safer than handheld. Those over 18 drive as badly while using a cell phone as those under 18.

My company (Chevron) prohibits the use of cell phones and other communication devices while driving. I believe it to be a wise policy.

I see erratic driving as a result of cell phone use every day. This is one hazard we can remove from our roads. Primary enforcement will be necessary to do so.

Thank you for your consideration.

Bill Britt

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PO Box 240528
Anchorage AK 99524
Email insurancecris @ yahoo.com Tel 907-561-6510 Fx 561-6502

fax to: Representative Peggy Wilson /Transportation
fax 465-3175 4pages

re: Ban on Cell Phones ? - Study finds bans do not reduce crashes

Please see results of [IIHS] Insurance Institute for Hwy Safety multi year /multi state study.

Please consider this finding before enacting "ineffective" or doubtful feel good legislation.

C R Scantlebury
CRIS Inc

good by

HIGHWAY LOSS DATA INSTITUTE **News Release | September 28, 2010**

Texting bans don't reduce crashes; effects are slight crash increases

ARLINGTON, VA — It's illegal to text while driving in most US states. Yet a new study by researchers at the Highway Loss Data Institute (HLDI) finds no reductions in crashes after laws take effect that ban texting by all drivers. In fact, such bans are associated with a slight increase in the frequency of insurance claims filed under collision coverage for damage to vehicles in crashes. This finding is based on comparisons of claims in 4 states before and after texting ban, compared with patterns of claims in nearby states.

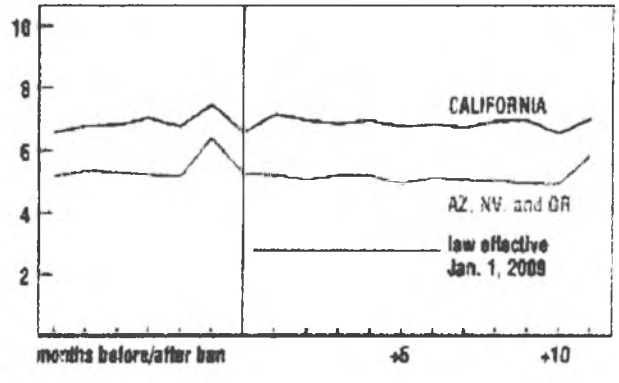
The new findings, released today at the annual meeting of the Governors Highway Safety Association, are consistent with those of a previous HLDI study, which found that banning hand-held phone use while driving doesn't cut crashes. HLDI is an affiliate of the Insurance Institute for Highway Safety.

HLDI researchers calculated rates of collision claims for vehicles up to 9 years old during the months immediately before and after driver texting was banned in California (January 2009), Louisiana (July 2008), Minnesota (August 2008), and Washington (January 2008). Comparable data were collected in nearby states where texting laws weren't substantially changed during the time span of the study. This controlled for possible changes in collision claim rates unrelated to the bans — changes in the number of miles driven due to the economy, seasonal changes in driving patterns, etc.

"Texting bans haven't reduced crashes at all. In a perverse twist, crashes increased in 3 of the 4 states we studied after bans were enacted. It's an indication that texting bans might even increase the risk of texting for drivers who continue to do so despite the laws," says Adrian Lund, president of both HLDI and the Insurance Institute for Highway Safety.

HLDI's new findings about texting, together with the organization's previous finding that hand-held phone bans didn't reduce crashes, "call into question the way policymakers are trying to address the problem of distracted driving crashes," Lund adds.

California — Collision claims per 100 insured vehicle years, by month before and after texting law for all drivers, compared with Arizona, Nevada, and Oregon



"They're focusing on a single manifestation of distracted driving and banning it. This ignores the endless sources of distraction and relies on banning one source or another to solve the whole problem."

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Status Report, Vol.
Cover story on texting
pages, 1 MB)

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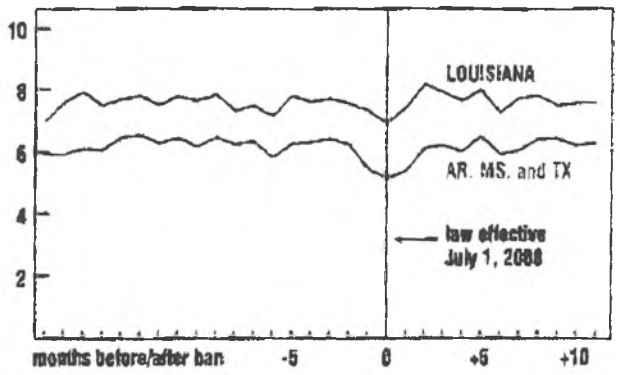
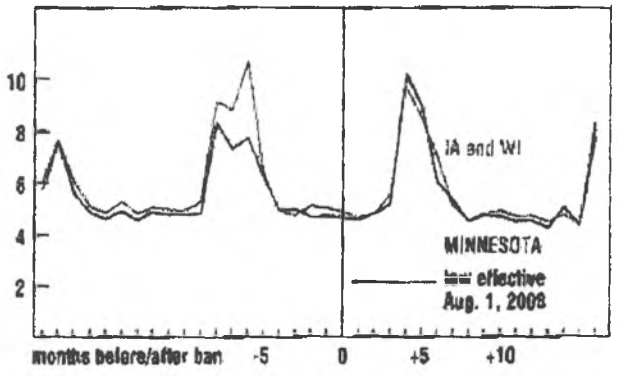
Louisiana — Collision claims per 100 insured vehicle years,by month before and after texting law for all drivers, compared with Arkansas, Mississippi, and Texas



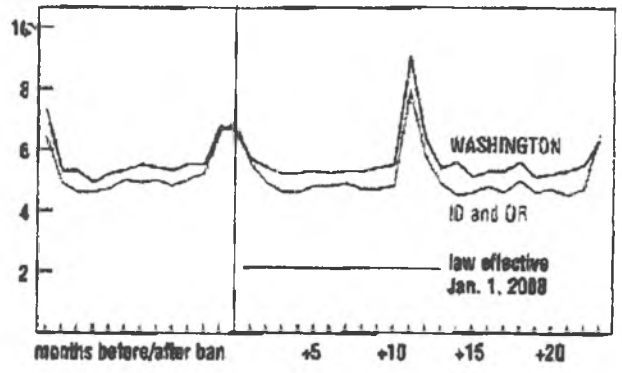
Month-to-month fluctuations in the rates of collision claims in HLDI's 4 study states with texting bans for all drivers didn't change much from before to after the bans were enacted. Nor did the patterns differ much from those in nearby states that didn't ban texting for all drivers during the study period. To the extent that the crash patterns did change in the study states, they went up, not down, after the bans took effect. Increases varied from 1 percent more crashes in Washington to about 9 percent more in Minnesota (the result in Washington isn't statistically significant).

Minnesota — Collision claims per 100 insured vehicle years, by month before and after texting law for all drivers, compared with Iowa and Wisconsin



Young motorists are more likely than older people to text while driving. In all 4 of the study states, crashes increased among drivers younger than 25 after the all-driver bans took effect. In California, Louisiana, and Washington, the increases for young drivers were greater than for drivers 25 and older. The largest crash increase of all (12 percent) following enactment of a texting ban was among young drivers in California.

Washington — Collision claims per 100 insured vehicle years,by month before andafter texting law for all drivers, compared with Idaho and Oregon



"The point of texting bans is to reduce crashes, and by this essential measure the laws are ineffective," Lund points out. He cautions that "finding no reduction in crashes, or even a small increase, doesn't mean it's safe to text and drive, though. There's a crash risk associated with doing this. It's just that bans aren't reducing this crash risk."

An Insurance Institute for Highway Safety study that relied on driver phone records found a 4-fold increase in the risk of injury crashes associated with phoning. A study in Canada found a 4-fold increase in the risk of crashes involving property damage. The crash risk associated with texting hasn't been quantified as precisely, but it may be comparable, if not greater, than the risk associated with phoning.

"Neither texting bans nor bans on hand-held phone use have reduced crash risk," Lund says.

Noncompliance is a likely reason texting bans aren't reducing crashes. Survey results indicate that many drivers, especially younger ones, shrug off these bans. Among 18-24 year-olds, the group most likely to text, 45 percent reported doing so anyway in states that bar all drivers from texting. This is just shy of the 48 percent of drivers who reported texting in states without bans. Many respondents who knew it was illegal to text said they didn't think police were strongly enforcing the bans.

"But this doesn't explain why crashes increased after texting bans," Lund points out. "If drivers were disregarding the bans, then the crash patterns should have remained steady. So clearly drivers did respond to the bans somehow, and what they might have been doing was moving their phones down and out of sight when they texted, in recognition that what they were doing was illegal. This could exacerbate the risk of texting by taking drivers' eyes further from the road and for a longer time."

Using a driving simulator, researchers at the University of Glasgow found a sharp decrease in crash likelihood when participants switched from head-down to head-up displays. This suggests that it might be more hazardous for a driver to text from a device that's hidden from view on the lap or vehicle seat.

Texting in general is on the increase. Wireless phone subscriptions numbered 286 million as of December 2009, up 47 percent from 194 million in June 2005. Text messaging is increasing, too. It went up by about 60 percent in 1 year alone, from 1 trillion messages in 2008 to 1.6 trillion in 2009.

The District of Columbia was the first US jurisdiction to ban all motorists from texting. This was in 2004, and since then 30 states have followed suit. Nearly half of these bans have been enacted in 2010.