
Memo

To: State Senator Jennifer Dill
From: David A. Moskovitz
Date: May 13, 2010
Subject: Distracted Driving Policy Review and Recommendations

In the next two weeks, 100 people are likely to die as a result of distracted driving. The urgency of this issue is obvious, and your colleagues have responded: in the past two weeks, Oklahoma has banned cell phone use by bus drivers, Wisconsin has banned text messaging by all drivers, and Alabama has banned all cell phone use and text messaging by young drivers.

This memo provides reasoned policy recommendations related to the use of phones and text messaging devices while driving, based on the following criteria:

1. Prevalence of these high-risk behaviors,
2. Relative risk levels associated with these behaviors,
3. Efficacy of regulatory options to mitigate risk,
4. Ability to enforce regulatory options, and
5. Political tenability of regulatory options.

One in Ten

The National Highway Traffic Safety Administration estimates that at any time during the day, one out of every ten drivers on the road is on the phone or text messaging (NHTSA, 2009). According to the Insurance Institute for Highway Safety, 25 percent of drivers report talking on the phone or texting in fast, heavy traffic and in stop-and-go traffic (IIHS, 2010). In addition, these reports indicate that young drivers use phones significantly more than other age groups, more than twice as much according to the IIHS (2010).

Most of these drivers are using hand-held phones, and in recent years the national rate of hand-held phone use appears to have leveled off. However, rapid changes in technology make conclusions uncertain: rates for some sub-groups and regions continue to climb significantly, the use of hands-free phone devices and hand-held text messaging devices is difficult to identify in observational studies; and in-vehicle information systems (such as GPS navigation devices) are becoming increasingly common (NHTSA, 2009).

Text-messaging first appeared in NHTSA's observational studies in 2005 as "visible manipulation of hand-held devices." Since then, the percentage of drivers engaged in the practice at any given moment has increased five-fold, from 0.2 percent in 2005 to 1.0 percent in 2008. In IIHS's 2009 survey, more than 45 percent of drivers 18 to 24 years old admitted to texting while driving—three times the average rate.

The Danger

A growing body of peer-reviewed research reveals the increased risks of driving while on the phone or texting. Crash data studies and both on-road and simulator experiments have shown that drivers talking on cell phones are four times more likely to be involved in traffic crashes than those not on the phone (NSC, 2010). Worse, drivers engaged in text messaging are substantially more likely to be involved in traffic crashes than those on the phone (Drews, Yazdani, Godfrey, Cooper, & Strayer, 2009; Hosking, Young & Regan, 2009). IIHS estimates that phone calls and text messaging could account for as much as 22 percent of all traffic crashes (2010). In addition to increased crash risks, based on distracted drivers' performance impairments, Cooper, Vladisavljevic, Medeiros-Ward, Martin, & Strayer suggest that phone use may also have a significant negative impact on traffic flow and congestion (2009).

The National Safety Council (NSC) issued a White Paper in 2010 providing an excellent summary of current science and a catalog of peer-reviewed literature. In short, the conversation and word-generation tasks associated with phone use and text messaging compete directly for drivers' attention and create a condition termed *inattention blindness*, in which drivers fail to process and to respond to up to 50 percent of information in the roadway environment. Distracted drivers exhibit slower reaction times, exaggerated braking force, slower response time to changes in roadway conditions (e.g. entering work zones, accelerating following slowing, and merging), poor lane tracking, and increased g-forces during turning. (Drews, et al., 2009; Hosking, et al., 2009; NSC, 2010).

Research has also shown that *there is little or no difference* between the degree of cognitive impairment suffered by drivers using hand-held phones and that of drivers using hands-free phones. The science on this issue is robust—studies have made experimental comparisons with other in-vehicle activities including physical tasks (such as holding a phone or eating a sandwich), conversation with passengers, and listening to radio broadcasts—none of which effect the same level of distraction as phone conversation (Drews, Pasupathi, & Strayer, 2008; NSC, 2010; Strayer and Johnson, 2001).

Finally, inexperienced drivers appear to suffer disproportionate impairment when engaged in phone conversation or text messaging (Hosking, et al., 2009). Coupled with their increased propensity to engage in these behaviors, novice drivers are an extremely high risk group.

Legislative Trends & Efficacy

Currently 39 states and the District of Columbia have enacted some restrictions on the the use of phones and text messaging devices. Broadly, these regulations falls into three categories: (1) prohibition of the use of hand-held phones, (2) prohibition of the use of any phone by select groups of drivers, and (3) prohibition of text messaging. The prevalence of these regulations is provided in Table 1.

Although the majority of prohibitions are primary enforcement laws, allowing drivers to be stopped and cited by law enforcement with the phone/texting violation as the sole infraction, 11 statutes (in eight states) are limited to secondary enforcement. In addition, at least a half-dozen states have laws prohibiting local government from enacting local rules related to drivers' phone use (GHSA, 2010).

Type of Legislation	Number of States
Hand-held phone use is prohibited for:	
All drivers	6 & D.C.
Novice drivers	1
State vehicles	1
All phone use prohibited for select drivers:	
Novice drivers	25 & D.C.
School bus drivers	18 & D.C.
Text messaging prohibited for:	
All drivers are prohibited from text messaging	25 & D.C.
Novice drivers	9
School bus drivers	2

Table 1: Cell phone and text messaging legislation (Governors' Highway Safety Association, 2010).

At the federal level, an executive order by President Obama prohibits all federal employees and contractors from texting while driving on government business or in government vehicles, and the the Federal Motor Carrier Safety Administration has prohibited all commercial vehicle drivers from texting while driving (NHTSA, 2010).

Using existing state regulations as potential options, each must be evaluated in terms of its effectiveness and enforceability. Several lessons have been learned from experience related to other driving behaviors such as speeding and drinking-and-driving. For example, states with primary enforcement seat-belt laws have been shown to have significantly higher seat-belt use rates and significantly lower fatality rates and than states without primary enforcement laws, and NHTSA has issued clear policy recommendations favoring primary enforcement seat-belt laws (2006; 2008). Furthermore, a growing number of academic studies, literature reviews, and reports from various organizations attribute phone bans' mixed success to lack of visible enforcement, publicity campaigns, and significant penalties (AAA Foundation, 2008; GHSA, 2010; McCartt & Hellinga, 2007; NHTSA, 2010). As a result, we conclude that ***secondary enforcement policies are unlikely to be effective; and without visible enforcement and publicity campaigns, no regulation is likely to have significant impacts on drivers' behavior.***

Recommendations

Our recommendations are below, each followed by a brief rationale:

1. Make it unlawful for *any driver* to engage in text messaging while driving.

There is general acceptance that a complete prohibition of phone use while driving would garner little public support at this time, would be politically untenable, and would be difficult to enforce. Though public understanding of cognitive impairment is limited, there does appear to be broad acceptance that: ***Text messaging incurs significantly greater risks than phone conversation.*** Public acceptance of the statement is evident from the pervasive state and federal

regulations already in place, and the accuracy of the statement is supported by numerous organizations and in the literature.

2. Make it unlawful for *any driver under the age of 21* to use a phone while driving.

The evidence is also clear that young and inexperienced drivers (1) use phones and text messaging while drive with greater frequency, (2) exhibit higher levels of cognitive distraction, and (3) suffer greater performance impairments due to distraction, leading to the conclusion that

Young and novice drivers would benefit most from reduced phone use and text messaging.

There are additional factors that make this group a potential target for legislation. First, young drivers may have yet to develop habitual phone use or text messaging while driving, making them more likely to be affected by legislation. Second, these drivers are already operating under regulations beyond those affecting all drivers, and so additional regulation are likely to be publicly acceptable. The popularity of legislation limiting use by novice driver suggests that there is broad support on this point, though the specific age ranges addressed varies widely by state.

3. Make it unlawful for any driver of a commercial passenger vehicle, and any state employees or agents engaged in activities for state purposes, to engage in any phone conversation while driving.

Although an overall ban appears to be untenable, select groups that shoulder disproportionate responsibilities can and should be singled out. Drivers of commercial passenger vehicles have greater responsibility for public safety than other drivers by the nature of their work. Likewise, agents of the state should reflect the best judgment of the government, model behavior for other citizens, and avoid exposing the state to risk and liability. Furthermore, enforcement of such limited regulation is within the bounds of feasibility.

Despite the strong evidence that hands-free and hand-held phones incur similar risks, that there is *no statistically significant difference*, government and industry groups have been hesitant to state this explicitly. However, based on our review of related literature and science, we believe there is sufficient evidence to state that:

Prohibiting use of hand-held phones is unlikely to be effective at reducing crash, injury and fatality rates related to distracted driving.

In this thinking we are joined by the leading researchers from the Applied Cognition Lab at the University of Utah, the IIHS, and the NSC.

Conclusion

Even if our recommendations were enacted tomorrow, they will not solve the problem of distracted driving. They do however, constitute what we believe to be the most practical steps toward reducing the risks posed by distracted driving, and will work in the public interest, and in conjunction with the federal Department of Transportation's national strategy, to reduce those risks.

Sources

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