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

Evaluation of NHTSA Distracted Driving Demonstration Projects In Connecticut and New York





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The Contracting Officer's Technic ¹ NHTSA, Office of Behavioral Sa		is project wa	s Ian Reagan.	
16. Abstract				
The communities of Hartford, Conne	cticut, and Syracuse. New	VYork, impler	mented year-long campai	ons to test
whether NHTSA's high-visibility end		_		
distracted driving – driving while tall			-	
laws, vigorous targeted law enforcem				-
sites conducted 4 waves of enforcement		-		
and radio spots featuring the tag line	_	—	_	-
media. Police wrote 100 to 200 citat	ions per 10,000 populatio	n for each way	ve in each site. Driver sur	veys showed
an increase in awareness that cell pho	one laws were being enfor	ced and recog	nition of the new slogan.	Observed
hand-held driver cell phone use drop	ped from 6.6% to 2.9% in	Hartford, and	from 3.7% to 2.5% in S	yracuse.
Connecticut's control area also show	ed a decrease in use (fron	n 6.6% to 5.6%	b) but not to the same ext	ent as
Hartford. New York's control area ha	ad similar decreases (5% t	o 3%), perhap	s a result of separate enfo	orcement
campaigns running simultaneously in	the control site. The rest	ults show that	high-visibility enforceme	ent campaigns
can reduce the number of people who	o use hand-held cell phone	es while drivin	ıg.	
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TECHNICAL SUMMARY

Background

Cell phone use and texting while driving can degrade driver performance in three ways -visually, manually, and cognitively. Talking and texting while driving have grown in the past decade as drivers take their cell phones into their vehicles. The percentage of drivers observed holding cell phones to their ears while driving was 5% in 2010, unchanged from 2009. When observed data are combined with self-report survey data, NHTSA estimates that driver cell phone use increased from 4% to 11% from 2000 to 2008 and was 9% in 2010.

NHTSA's high-visibility enforcement (HVE) model is a proven technique to change driver behavior and change it quickly, thereby enhancing the effect of traffic laws. HVE combines strong laws, vigorous, highly visible law enforcement activity, targeted advertising that emphasizes the enforcement, and evaluation. The present study tested whether the HVE model could be successfully applied to laws banning the use of hand-held cell phones while driving.

Programs

The two demonstration programs applied 4 waves of high-visibility enforcement over the course of one year. Three contiguous communities in Connecticut, East Hartford, Hartford, and West Hartford, and Syracuse, New York, participated. Wave 1 was conducted in April 2010. Waves 2 and 3 were in July and August 2010 (respectively), and the final wave took place in March and April 2011.

NHTSA's Office of Communications and Consumer Information



developed television and radio commercials depicting cell phone users crashing their vehicles. The commercials used the tag line *Phone in One Hand, Ticket in the Other*. The closing visual depicted law enforcement activity along with the voiceover, "*We're stepping up enforcement to save lives—talking or texting while driving is against the law.*"

NHTSA bought substantial television, radio, and online advertising time. Paid television spots for Wave 1 totaled 535 gross rating points (GRPs). (A GRP is the percentage of target audience times the frequency they see the spot, frequency \times % reached. Viewers should have been exposed to the spot an average of 5.35 times during the 2-week buy period.) Each of the remaining three waves got 300 GRPs. Each State held well-publicized kick-off events followed by extensive "earned media" efforts to ensure that local news outlets covered the stories throughout the enforcement periods. The target audience was adults 18 to 45 years old.

Enforcement

Enforcement in Connecticut was conducted by East Hartford, Hartford, and West Hartford police departments and the Connecticut State Police. The Syracuse Police Department, the Onondaga Sherriff's Office, and the New York State Police conducted the New York campaign. As shown below, the number of police hours and the number of citations issued were substantial. Officers issued approximately 100 tor 200 citations per 10,000 population during each of four waves in each test area. For comparison purposes, the citation rates for the same period one year before each of the waves are also shown. For each wave during the demonstration program, officers exceeded the prior year's ticketing by factors of about 60 times.

	Table ES 1. Emoleculent Data									
	Wa	ve 1	Wave 2		Wave 3		Wave 4		Average per wave	
	Hartford	Syracuse	Hartford	Syracuse	Hartford	Syracuse	Hartford	Syracuse	Hartford	Syracuse
Enforcement Hours	1,345	1,370	1,345	1,337	1,045	1,345	1,272	1,307	1,252	1,340
Hand-Held Use	2,229	2,185	2,327	1,977	2,257	2,341	2,621	2,354	2,359	2,214
Text/ Distraction	24	115	21	169	64	183	115	263	56	183
"Distracted Driving" 1 year prior	18	27	44	40	63	48	31	*	39	38
Citations/ 10k Pop.	97	167	100	156	99	183	117	190	103	174

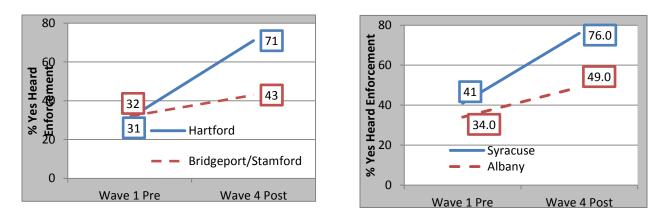
Table ES 1. Enforcement Data

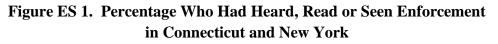
* For Syracuse, Wave 1 was one year prior to Wave 4.

Awareness

The department of motor vehicle offices in the enforcement and comparison areas in both States collected public awareness information. Albany served as the control area for Syracuse. Stamford and Bridgeport were used as the control areas in Connecticut. The control areas were selected to provide similar demographics, some level of media isolation because they were in different media markets, and regular ongoing enforcement activities that were not part of the *Phone in One Hand, Ticket in the Other* program.

The percentage of respondents in the Hartford area who heard about enhanced police enforcement increased significantly, from 31% baseline to 71% at the end of the fourth wave. There was a smaller but statistically significant increase of awareness of special police enforcement in the control area as well (from 32% to 43%). Similarly, in Syracuse, the number of respondents reporting that they had heard, read, or seen enforcement increased significantly (41% to 76%) with a smaller yet still significant increase in Albany (34% to 49%).





Awareness of the *Phone in One Hand, Ticket in the Other* slogan started at 5% in both Hartford and the Connecticut control area. Over the course of the program, recognition increased significantly to 54% in Hartford versus 12% in the control area. In Syracuse, recognition increased from 5% to 29% as compared with 4% to 5% in Albany.

Observed Cell Phone Use

Cell phone use observations were conducted at 15 sites in each intervention area, plus 15 sites in Albany, 15 in Stamford, and 7 sites in Bridgeport, the control areas. Across all cities and all waves, a total of 135,714 drivers of passenger vehicles were observed in Connecticut and 89,826 in New York.

The percentage of drivers observed holding their phones to their ears decreased from baseline to the end of the final wave in the Hartford area and the Connecticut control sites. The reduction was significantly greater in Hartford (from 6.8% to 2.9%) than the control area (from 6.6% to 5.6%). These changes represent a 57% drop in observed cell phone use for the Hartford site compared to a 15% drop at the control site.

The effect of the program in Connecticut was greatest for drivers estimated to be 25 to 59 years old (6.8% to 3.2% phone use) and pickup truck drivers (from 9.9% to 4.0% phone use). No gender differences were observed.

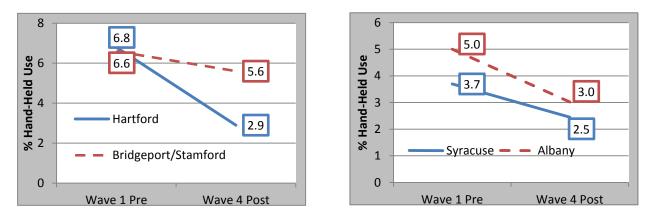


Figure ES 2. Observed Hand-Held Phone Use in Connecticut and New York

Fewer drivers in Syracuse were observed holding cell phones to their ears at the end of in the fourth wave (from 3.7% to 2.5%) and this 32% decrease was statistically significant. There was also a significant 40% reduction in observed hand-held cell phone use in Albany from 5.0% to 3.0%. The interaction between location and demonstration wave was not significant, which suggests that the reductions in hand-held cell phone use were similar in both locations.

In Syracuse, the biggest impact of the program was on drivers estimated to be 25 to 59 years old (4.0% to 2.7%) and male drivers (3.8% to 1.9%).

Discussion

An overall decrease in hand-held cell phone use was observed in both enforcement areas. There were clear indications that drivers received the message and there was a substantial increase in recognition of the *Phone in One Hand, Ticket in the Other* slogan. The paid media was delivered at expected levels and the enforcement outpaced expectations, exceeding previous benchmarks.

Albany, the control site for Syracuse, showed similar reductions in observed cell phone use. This effect may have been associated with the *Operation Hang Up* program run periodically by the New York State Police. This highly publicized enforcement had three waves occurring within the time frame of the current demonstration program—two waves ran near in time to Waves 1 and 3 while a third ran during Wave 4. That is, Hartford and Syracuse should be considered as test areas; Albany as a partial test area; with Stamford and Bridgeport in Connecticut as control areas subject only to the national media attention on distracted driving and baseline enforcement levels that were present during this time period.

The results are consistent with earlier HVE programs targeting occupant protection, impaired driving, aggressive driving, and speed. High-visibility enforcement campaigns can be effective in reducing the number of people who operate hand-held cell phones while driving.

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I. BACKGROUND

Societal Concern About Distracted Driving

Safe driving requires alertness and focus, and there are many ways drivers can be distracted from the driving task. Driving performance can be degraded visually (eyes off the road), manually (hands off the wheel), or cognitively (not paying sufficient mental attention to the task). Factors inside and outside the vehicle may divert attention from the driving task -- such as looking at a crash scene on the other side of the road or talking to passengers, operating the radio or other controls, or manipulating a navigation device. Drivers may lose focus because they are daydreaming, or thinking about upcoming or past events. All these factors can delay recognition of information necessary to adjust driving behavior appropriately in rapidly changing driving situations, increasing crash risk. Physical responses to events on the roads may also be adversely affected if the driver is using one or both hands to perform behaviors such as eating or reading a map.

Distracted driving has always been with us, but it has received greatly increased attention in recent years. In part, this has occurred because of the increased use of mobile electronic devices such as cell phones, MP3 players, and GPS devices while drivers are on the road.

Cell Phone Risks

Cell phone use has grown tremendously in the past decade. There is some uncertainty about what the growth rate in cell phone use while driving has been, and what current use rates are. The percentage of drivers observed to be holding cell phones to their ears while driving stood at 5% in 2010, unchanged from 2009 (Pickrell & Ye, 2011). When combined with self-reported data, NHTSA estimated that car cell phone use increased from 4% to 11% from 2000 to 2008 and was 9% in 2010. That is, in a typical daylight moment in 2010, it is estimated that 9% of the drivers were talking on their cell phones. Drivers under 25 are most likely to use phones while driving, and use is higher on weekdays (Pickrell & Ye, 2011).

It is clear that cell phone use can impair driving performance (Governors Highway Safety Association, 2011). In making or receiving calls, both hands and eyes are involved. Conversations can be distracting, especially if they are cognitively demanding, hearing and visual field may be affected, and handheld phones necessitate one hand being off the steering wheel during the call (Young, Regan, & Hammer, 2003). Simulator studies, of which there are over 100, indicate performance decrements in reaction time, steering wheel movements, speed maintenance, visual search, and decision making (McCartt, Hellinga, & Braitman, 2006; Caird et al., 2008).

Epidemiologic studies suggest that cell phone use increases crash risk. Two studies have used cell phone billing records to verify use at the time of the crashes. One study in Canada found that phone use was associated with a fourfold increase in the risk of property damage crashes (Redelmeier & Tibshirani, 1997). A later study conducted in Australia found the same relationship for injury-producing crashes (McEvoy et al., 2005). Cell phone users were four times as likely to get into crashes, and this relationship held for male and female drivers, for both young and older drivers, and for both hands-free and hand-held phones.

Data from naturalistic studies, using sophisticated cameras and instrumentation in personal vehicles, verifies the increased crash risk of cell phone use in cars, especially the act of dialing. The risk of a crash or near-crash when dialing a cell phone was 2.8 times as high as non-distracted driving. Talking or listening on a cell phone was associated with the risk of a crash or near-crash that was 1.3 times higher than when a phone was not in use (Klauer et al., 2006).

The actual number of crashes resulting from cell phone use and from distraction in general has been difficult to determine. Many police reports do not include information on distracting events, and those that do largely depend on after-the-fact reconstruction of crash causation factors based on physical evidence such as observing a phone in the car, and self-reports.

Texting Risks

There is less information available on texting while driving, but this is also known to be a highrisk practice that is on the increase. In simulator studies, receiving text messages, and especially sending them, impair driving behavior, producing slowed reaction time, lane drift, and speed variability (Hosking, Young, & Regan, 2006; Reed & Robbins, 2008; Drews et al., 2009). Texting while driving generally involves visual, manual, and cognitive distraction and thus may be particularly risky (GHSA, 2011).

Behavioral Countermeasures

The U. S. Department of Transportation has made distracted driving and cell phone/texting laws a national priority. One popular approach to reducing distracted driving crashes associated with cell phones and texting has been public information and education campaigns. Many of these efforts are sponsored by government agencies, safety groups, insurance companies, and mobile phone providers. These efforts have raised awareness of the dangers of cell phone use and texting while driving, but their behavior change potential has not been documented (GHSA, 2011). Many surveys show that people acknowledge the augmented crash risk involved, but many drivers say they make calls or text while driving anyway (Braitman & McCartt, 2010; O'Brien et al., 2010).

One approach for changing cell phone use behavior is laws prohibiting their use. Such laws are common in other countries and some have now been introduced in the United States. Many local jurisdictions ban cell phones and as of March 2012 (GHSA, 2012), there are statewide bans on hand-held phones in place in California, Connecticut, Delaware, Maryland, New Jersey, New York, Oregon, Washington, the District of Columbia, Guam, and the Virgin Islands. Similarly, each of Hawaii's four counties has passed a ban, and Nevada banned hand-held use effective January, 2012. The use of any cell phone (hand-held and hands-free) while driving a school bus is prohibited in 19 States (Arizona, Arkansas, California, Connecticut, Delaware, Georgia, Illinois, Kentucky, Louisiana, Massachusetts, Minnesota, Mississippi, New Jersey, North Carolina, Oklahoma, Rhode Island, Tennessee, Texas, Virginia) and the District of Columbia. The use of all cell phones by novice drivers is prohibited in 30 States and the District of Columbia. Text messaging is banned for all drivers in 35 States, the District of Columbia, and Guam. Novice drivers are banned from texting in 7 additional States. Utah's law defines careless driving as committing a moving violation (other than speeding) while distracted by use of a handheld cell phone or other activities not related to driving. GHSA does not classify Utah's law as a hand-held law.

Young drivers are more likely than older drivers to use phones while driving and are overrepresented in motor vehicle crashes. Cell phone and texting bans for teenagers are highly supported by both parents of teenagers and teenagers themselves. In a recent national survey, 96% of parents of 15- to 18-year-olds approved of a cell phone ban for teens, and 98% endorsed a texting ban (Williams, Braitman, & McCartt, 2011). In a separate national survey of 15- to 18year-olds, 85% approved of a cell phone ban for teens, and 93% supported a texting ban (Williams, 2011).

Most of the laws in place allow primary (standard) enforcement that allows police officers to cite drivers for a cell phone violation alone. In a few cases only secondary enforcement is allowed, so that a police officer must have some other reason to stop a vehicle before citing a driver for using a cell phone. The usual penalty is a monetary fine.

Effects of Laws

A study in North Carolina on the effect of a cell phone ban for novice drivers showed a slight increase in use, from 11% to 12%, five months after the law was in place (Foss et al., 2009). However, statewide bans of hand-held phones for all drivers have been found to successfully decrease use in New York, Connecticut, and the District of Columbia (McCartt et al., 2009). All these laws allow primary enforcement. In two of these States, McCartt et al. (2009) report that use crept back up over time, but remained lower than before the law. However, there is still substantial noncompliance.

Importance of Enhanced Laws

Clearly, laws by themselves are only part of the answer. Highly publicized enforcement programs have been used successfully to reduce alcohol-impaired driving and aggressive driving, and have been important in increasing seat belt use in the United States (Nichols & Ledingham, 2008; Williams & Wells, 2004). *Click It or Ticket* programs are designed to help ensure drivers know about the existence of the law and penalties for noncompliance, and receive the message that not using seat belts will likely result in citations and penalties. Surveys have indicated that many nonusers of seat belts think that using belts is a smart idea (Nichols & Ledingham, 2008). Strong enforcement programs encourage them to convert this belief into action. Similarly, cell phone calls and texting in cars, thought by many to be dangerous even though they themselves continue these practices, may be deterred by the threat of enhanced enforcement. In addition, there is evidence that some are not familiar with cell phone and texting bans that apply to them. For example, in one study 48% of drivers in States with universal texting bans were unaware of the laws, or were unsure of their existence (Braitman & McCartt, 2010). Well-publicized enforcement programs, with accompanying public information and education programs, will help to inform motorists about these laws.

Purpose of Present Study

The present study was designed to implement and evaluate demonstration programs applying the HVE model to cities in Connecticut and New York, with the expectation that the effort would lead to increased compliance with and awareness of the existing laws. Connecticut banned handheld phone use and texting while driving in October 2005. In October 2010 Connecticut passed a new law that imposed stronger penalties for motorists using hand-held electronic devices in any capacity. For example, the waiver of the fine for first-time offenders if they could prove that they had obtained a hands-free phone was eliminated; and the fines for violations increase with each subsequent law violation. Texting is a primary, stand-alone, basis for a ticket. The first offense fine is \$100, \$150 for the second offense, and \$200 for third and subsequent for phones and secondary for texting. New York does not have special rules for novice drivers. In New York, cell phone violations involve a fine of \$100 maximum; the fine for texting is \$150 maximum. After February 16, 2011, two driver license points for all offenders have been added for cell phone or texting violations in New York.

II.PROGRAM DESCRIPTION

Program Area Selection

NHTSA selected communities to test the high-visibility enforcement model based on applications from States that had hand-held phone laws in effect and which were interested in participating in an HVE demonstration program. Syracuse, New York, and three contiguous communities in Connecticut, East Hartford, Hartford, and West Hartford, were the sites proposed.

Syracuse is located in Onondaga County in central New York and is the region's major metropolitan center. Syracuse University and several smaller colleges and professional schools are located there. Syracuse is the fifth largest city in New York, with an estimated population of 138,068 in 2008 (U.S. Census). The population is 64% White, 25% Black or African-American, 3% Asian, and 5% Hispanic. Albany was chosen as the control site for Syracuse. Albany has an estimated population of 93,535 with similar demographics.

Hartford, considered the "Insurance Capital of the World," is the capital of Connecticut. It is located on the Connecticut River, north of the center of the State. Its 2007 population of 124,563 (Connecticut Department of Public Heath) ranked Hartford as the State's second largest city, after Bridgeport. Hartford is bordered by the towns of West Hartford, Newington, Wethersfield, East Hartford, Bloomfield, South Windsor, and Windsor, three of which participated jointly in the demonstration. Together, the 3 communities have a combined population of 233,746. The 2000 Census showed that the racial makeup of the 3 communities is diverse (see Table 1).

Tuble 1. Demographic characteristics of b Hardord Communities									
Characteristics	Hartford	West Hartford	East Hartford						
White	27.7%	85.9%	64.7%						
Black	38.0%	4.8%	18.8%						
Native American	0.5%	0.1%	0.3%						
Asian/Pacific	1.7%	4.9%	4.0%						
Islander									
Other races	26.5%	2.6%	8.7%						
Two or more races	5.4%	1.7%	3.3%						
Hispanic of any race	40.5%	6.3%	15.23%						
Population	124,563	60,486	48,697						

Table 1. Demographic Characteristics of 3 Hartford Communities

Public Service Announcements

NHTSA's Office of Communications and Consumer Information developed and tested new TV, radio, and online creative material. *Phone in One Hand, Ticket in the Other* became NHTSA's distracted driving, HVE message that targeted all drivers, male and female, 18 to 45 years old. This target audience was selected based on NHTSA's observation surveys of cell phone use (Pickrell & Ye, 2010). The advertisements were designed to generate high awareness of stepped-up enforcement efforts about local cell phone laws and convince drivers to adhere to those laws. "BAM!", a 30-second TV commercial, depicted drivers distracted by cell phones subsequently crashing. The tag line and logo (see Figure 1) were included at the end along with police cars rolling out (Syracuse) or actual officers from the enforcing agencies (Connecticut). There was a voiceover saying "*We're stepping up enforcement to save lives. Talking or texting while driving is against the law.*" The creative material is available at www.trafficsafetymarketing.gov/CAMPAIGNS/

Distracted+Driving/Phone+In+One+Hand+-+Ticket+In+The+Other.

There were 5-, 10-, and 15-second radio liners aired in Syracuse and Hartford. One example read,

"Cops are cracking down. If you use your cell phone while you drive you will get busted. Phone in one hand ticket in the other." Another longer radio ad titled "Not clear on the concept" overheard a driver complaining about a distracted fellow driver only to have a close call himself. The sound of screeching tires was followed by a suggestion, "Honey, maybe you should put the phone down? Focus on the road? Cops in Hartford [Syracuse] are cracking down. If you text or talk

Figure 1. Phone in One Hand Ticket in the Other Logo



while driving you will get caught. Phone in one hand, ticket in the other" (see Figure 1). Radio scripts, posters, and other media material are in Appendix D.

Earned Media

U.S. Transportation Secretary Ray LaHood, NHTSA Administrator David Strickland, and senior State and local officials launched the campaign with press events (U.S. DOT, 2010) in New York and Connecticut on April 8, 2010. Former New York Governor David A. Paterson, Congressman Dan Maffei, former DMV Commissioner David Swarts, and Syracuse Police Chief Frank Fowler led the Syracuse event. Lt. Governor Michael Fedele, Governor's Highway Safety Representative Robbin Cabelus, former State Senator Billy Ciotto (for Congressman John Larson), Hartford Police Department Lt. Robert Allan, and Dr. Brendan Campbell, from the Connecticut Children's Medical Center, all led the Hartford event.

Both 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 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 Travelers Insurance Company to sponsor a teen driving video contest. Hartford's WFSB Channel 3 sponsored the "I Promise" campaign, and there were ride-along opportunities for local media. Coverage included television and newspaper stories in Connecticut and New York Times, The Boston Globe, Consumer Reports, MSNBC.com, ABC News Good Morning America, FOX News, CBS, and ABC's 20/20.

To support social norming messages between the HVE periods, ESPN, NHTSA, and State Farm Insurance promoted the "*Put It Down*" campaign to generate awareness of the dangers caused by distracted driving. NHTSA's Web site provided other social norming materials for communities, employers, and schools. Examples of the PSAs are available at <u>www.distraction.gov/</u>.

Paid Media

NHTSA's Office of Communications and Consumer Information bought 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. For the first wave of enforcement in April 2010, NHTSA bought 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. Based on NHTSA's previous experience with occupant protection and impaired driving campaigns, this was considered a very strong buy that would reach the target audience enough times that the ad's message would resonate with them. For the next three enforcement waves in July and October 2010 and March to April 2011, NHTSA bought 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 \$559,161 in both Hartford and Syracuse over the course of the year (see Table 2).

Table 2. Wedia Duy									
	Wave 1(2 weeks)		Wave 2(1 week)		Wave 3	Wave 3(1 week)		Wave 4(1 week)	
	Hartford	Syracuse	Hartford	Syracuse	Hartford	Syracuse	Hartford	Syracuse	Total
TV Cost	\$108,651	\$36,898	\$57,098	\$21,517	\$70,244	\$21,607	\$68,727	\$32,249	\$416,991
Radio Cost	\$27,204	\$12,338	\$17,586	\$9,431	\$14,628	\$5,198	\$15,954	\$8,282	\$110,621
Online									
Cost	\$4,624	\$4,425	\$3,750	\$3,750	\$2,500	\$2,500	\$5,000	\$5,000	\$31,549
Total Cost	\$140,479	\$53,661	\$78,434	\$34,698	\$87,372	\$29,305	\$89,681	\$45,531	\$559,161

Table 2. Media Buy

The Connecticut Highway Safety Office also ran the *Phone in One Hand, Ticket in the Other* slogan on 19 variable message boards in and around the Hartford area and bought digital billboards on major Hartford interstate highways I-84 and I-91 (see Figure 2). The billboard message also ran at the XL Center, a sports and concert venue in downtown Hartford. Figure 2 shows the message that ran on the XL Center digital billboard and outdoor marquee.



Figure 2. Hartford's Outdoor Billboard Marquee

Program and Evaluation Timeline

Both Hartford and Syracuse conducted 4 waves of HVE over the course of one year from April 2010 to April 2011 (see Figure 3). The Connecticut Department of Transportation and the New York Department of Motor Vehicles' Governor's Traffic Safety Committee conducted the program in two 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. The four waves of focused enforcement took place in April, July, and October 2010 and March to April 2011. Figure 3 shows the timeline and schedule for evaluation data collection, media flights, and enforcement in test and control sites before and after each of the four waves. Appendix C shows specific dates for each program and evaluation component.

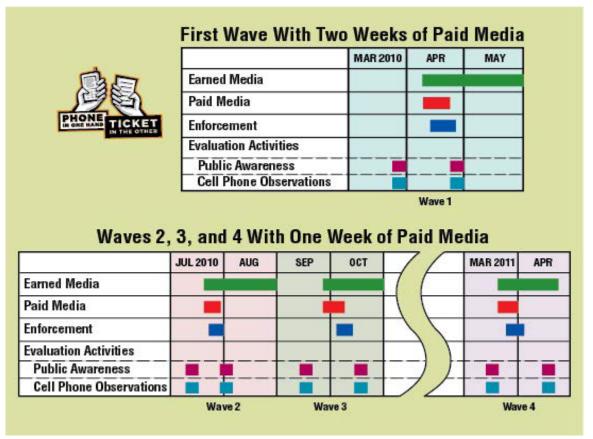


Figure 3. Demonstration Program and Evaluation Timeline in Connecticut and New York

Enforcement

Hartford and Syracuse chose enforcement strategies tailored to their communities. Both Highway Safety offices prepared citation holders that officers used to hold the tickets and provide specific information about the States' cell phone laws, the fine amount, and the risks associated with distraction. 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. Syracuse preferred strategically placing patrol vehicles where the officer could observe drivers discretely, actively seeking out distracted drivers using cell phones or texting. Syracuse officers reported that higher vantage points, SUVs, and unmarked vehicles were particularly effective in assisting to identify violators. Both Hartford and Syracuse selected enforcement sites based on high-volume traffic patterns and associated crash rates. Both sites found that having the flexibility to schedule overtime shifts as needed was critical to the successful implementation of the enforcement mobilizations.

At the end of each wave, law enforcement officers from the various departments got together to compare experiences and challenges, discuss reporting requirements, and consider modifications they would make for the next wave to further increase their HVE efforts.

III. EVALUATION METHOD

Process Evaluation

The Highway Safety Office in Connecticut, the Governors Highway Safety Committee in New York and NHTSA's contractors gathered process evaluation data. The press offices of each State gathered earned media activity and local press stories for the waves. NHTSA staff gathered "CustomScoop" data (an online news clipping service) to document earned media items. NHTSA's media contractor, the Tombras Group, provided TV, radio, and online purchases and post-buy reports to evaluate the strength of the media in terms of actual GRPs delivered compared to the purchase plan.

Each participating law enforcement agency submitted wave reports with the number of officer hours worked and number of citations issued for cell phone use, DWI arrests, safety restraint citations, child passenger citations, felonies, stolen vehicles, fugitives apprehended, suspended licenses, uninsured motorists, speeding, reckless driving, and drugs. Law enforcement agencies routinely collect this information when participating in NHTSA's *Click It or Ticket* seat belt mobilizations or impaired driving crackdown campaigns each year. These data were used in the press releases after each wave by the agencies to keep the public informed. Both State agencies also provided citation data at the end of the program to be used to compare ticketing prior to the program.

Both States also provided crash data for additional analyses. Unfortunately, neither file could be used. The Connecticut crash reports do not indicate whether a cell phone (or other form of distraction) was a contributing factor in the crash and could not be used to evaluate the impact of the program on distracted driving crashes. New York's data do have a code indicating whether a cell phone or texting (among others) was a contributing factor in the crash but there were too few cases in New York to analyze. Over a 17-month period from January 2010 to May 2011 there were 27 drivers involved in crashes who were coded as "distracted" in all of Onondaga County and there were 28 cases in Albany County. These small numbers (averaging 1.6 per month) in these small communities were insufficient to allow meaningful analyses. Furthermore, crash reports are prepared after the crashes have occurred and the officers have arrived at the scenes. Drivers may be reluctant to admit that they were using cell phones or texting at the time of the crashes.

Control Area Selection

Comparison (control) areas were selected in each State. Selection was based on reasonable demographic similarity (i.e., total population, population density, and median income). Media

isolation was also considered important to avoid media messages from reaching the comparison area. Albany was deemed suitable as the comparison area for Syracuse. Syracuse and Albany have separate, non-overlapping designated media areas (DMA). In Connecticut obtaining an isolated media area was more difficult. Only Southern Fairfield County is in a separate DMA (that of New York City) from the remainder of the State. However, even the Southern Fairfield County areas can receive media from the Connecticut DMA (many cable and satellite providers distribute Connecticut stations). The cities closer to New York provide better media isolation but are quite different demographically from the tri-city treatment area. Therefore two noncontiguous control areas were selected to best match the treatment area in terms of demographics while maintaining reasonable media isolation. The cities were Stamford (which gets the vast majority of its media from the New York City DMA) and Bridgeport (which gets the majority of its media from New York City DMA but still has ample access to Connecticut DMA media). In a DMV survey conducted by Preusser Research Group only about 30% of respondents at the Bridgeport DMV reported that Connecticut news broadcasts (instead of New York City or lower Fairfield County specific news provided by local cable company) were their primary sources for news.

Cell Phone Usage Observations

Cell phone use observations were conducted at 15 sites in each intervention area, plus 15 sites in Albany, 15 in Stamford, and 7 sites in Bridgeport, the control areas. Sites were selected from road segments based on traffic volume estimates. Three of the 15 sites in each area were expressway or Interstate off-ramps (one of the 7 sites in Bridgeport was an Interstate off-ramp). 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 and not to create a weighted estimate of cell phone use in the cities.

Use of hand-held cell phones was observed for 60 minutes at traffic light controlled intersections in each city. Interstate sites were on off ramps that exited into traffic light controlled intersections. Traffic moving under a green light was observed in both directions, that is, observers "pivoted" to observe cross street traffic when the traffic light was red on the primary road.

All data were recorded on paper forms (See Appendix A). Three types of cell phone use were recorded: hand-held phone, in-ear device, or manipulating a device. Hand-held was coded when a cell-phone was held in the general proximity of the driver's ear. Ear devices were coded when the visible ear contained an "ear bud" (e.g., wired headset or wireless/Bluetooth). Manipulating was coded when the device was held in the drivers hand but not in the general vicinity of the head. Manipulating could include texting, dialing, checking e-mail, using a mobile GPS application or other activities. No attempt was made to distinguish between these activities.

Categories were not mutually exclusive. Several drivers were observed manipulating with an ear device present or talking on their phone with an ear device in (for example). Observers also coded type of vehicle (car, pickup truck, sport utility, van), driver's sex and age approximate category (<25, 25-59, >59).

A reference point far enough down the road where the vehicle, but not the driver, could be observed was used to select the next vehicle to be observed. Only one vehicle at a time was recorded. Once the data for a vehicle was recorded, the observer would record data from the next vehicle to pass the reference point. This procedure insured that the next vehicle to be observed was randomly selected from the traffic stream without knowledge of cell phone use. Only passenger vehicles were observed (excluding police, fire, and ambulance).

The main analyses were based on the average of the percentage of use at each observation site. Data were weighted to maintain the original number of observations while giving each site an equal weight in the analysis. Binary logistic regressions were used to evaluate significance of differences for weighted data and chi squares were conducted on raw data for subsets of the data (e.g., age categories). Chi-squared (χ^2) values are reported for both statistics noting that the χ^2 for logistic regressions is a "Wald" χ^2 . Over 225,500 vehicles were observed for the four waves in test and control areas of the demonstration program. Table 3 shows the number of vehicles observed by wave and location.

In Connecticut 135,714 drivers were observed (see Table 3). Fifty-seven percent of the vehicles observed were passenger cars; 8% were pickup trucks; 25% were SUVs; and 10% were vans. Eight percent of the drivers were estimated to be under 25 years old; 85% were 25 to 59; and 6% were 60 or older. Fifty-nine percent of the drivers were male and 41% were female. Thirty-one percent of the observations started between 7 a.m. and 10:59 a.m.; 33% between 11 a.m. and 1:59 p.m. and 35% between 2 p.m. and 4:59 p.m. A change in observers led to a drop in the number of observations conducted in Hartford starting in Wave 3.

In New York 89,826 drivers were observed (see Table 3). Fifty-eight percent of the drivers were in passenger cars; 8% were in pickup trucks; 23% were in SUVs; and 11% were in vans. Thirteen percent of the drivers were estimated to be under 25; 78% were 25 to 59; and 9% were judged to be 60 or older. Fifty-six percent of the drivers were men (44% women). Twenty-five percent of the observations started between 7 a.m. and 10:59 a.m.; 32% between 11 a.m. and 1:59 p.m. and 43% between 2 p.m. and 4:59 p.m.

According to the Federal Highway Administration (FHWA, 2010) about 50% of the drivers in the United States are men. The same data showed that 13% of the drivers were under 25, 64% were 25 to 59 years old, and 23% were 60 or older.

			Wave 1	Wave 2	Wave 3	Wave 4	Total
nt	Houtford	Pre	9,604	9,286	4,718	4,512	28,120
ctic	Hartford	Post	9,889	9,707	7,215	4,495	31,306
Connecticut	Stamford	Pre	9,691	9,673	9,630	9,315	38,309
Ŭ	Bridgeport	Post	9,480	9,743	9,367	9,389	37,979
×		Pre	7,101	7,788	8,058	7,656	30,603
York	Syracuse	Post	7,957	7,961	8,259	7,851	32,028
New		Pre	3,402	3,263	3,107	3,490	13,262
Z	Albany	Post	3,163	3,457	3,348	3,965	13,933
	Total		60,287	60,878	53,702	50,673	225,540

Table 3. Ns for Observed Use

Self-Reported Use and Awareness Surveys

Awareness surveys were collected from motorists visiting DMV offices in both the test and comparison communities. Two DMV offices were selected in Syracuse and North Syracuse. The Albany DMV office was selected for the comparison. Two DMV offices were chosen in the Hartford Area (Wethersfield and New Britain) and two DMV offices in the comparison areas (Bridgeport and Norwalk) that service the Bridgeport and Stamford communities. Data collection plans were designed to maximize the power of the analyses for the pre-Wave 1 to post-Wave 4 (i.e., baseline to final). Specifically, Pre-Wave 1 had a target sample size (N) of 1,000,¹ post-Wave 4 had a target N of 1,000, and every other wave had a target N of 500. When an evaluation area had two DMV offices the target N was split evenly between the offices. All DMV survey respondents were motorists who were visiting selected licensing centers. These surveys were administered by PRG staff. The survey form was a one-page, paper-and-pencil survey developed by NHTSA (OMB # 2127-0665, see Appendix B). The survey included items asking whether respondents had seen or heard of the distracted driving program, enforcement, or messaging. They were asked about their cell phone use while driving, among other topics. Usually, these surveys were completed as these visitors to the centers were waiting for photos to be taken or waiting to be called for service. Post-Wave 2 data in Syracuse were collected nearly 2 weeks later than planned. Table 4 contains the actual Ns collected during the evaluation.

¹ In the Connecticut comparison area, Ns of 2,000 in pre-Wave 1 and 1,000 in post-Wave 1 were sought to compare the two areas (Stamford and Bridgeport). No meaningful differences were found between offices so all data were collapsed.

			Wave 1	Wave 2	Wave 3	Wave 4	Total
t	IItf	Pre	982	503	495	499	2,479
Connecticut	Hartford	Post	416	488	503	951	2,358
onne		Pre	1,964	490	505	510	3,469
Ŭ	Comparison	Post	825	495	509	1,009	2,838
×	Syracuse	Pre	1,121	502	500	500	2,623
New York		Post	413	501	501	1,001	2,416
lew	Comparison	Pre	991	0	498	545	2,034
Z		Post	501	454	475	977	2,407
	Total		7,213	3,433	3,986	5,992	20,624

Table 4. Ns for Awareness Surveys

Of the 11,144 surveys collected in Connecticut across all waves and locations, 54% of the respondents were male (46% female). Nine percent of the respondents were 20 or younger, 82% were 21 to 59 years old, and 9% were 60 or older. Sixty-two percent of participants described themselves as White, 17% were described themselves as Black or African American, and the rest were other categories. Twenty-one percent of participants indicated they were Spanish/Hispanic origin. Sixty percent of respondents reported driving a car as their primary vehicle compared to 8% for pickup trucks, 20% for SUVs, 6% for mini-vans, and 2% reported driving a full van (4% selected "other").

Of the 9,480 surveys collected in New York, 54% of participants were male (46% female). Drivers 20 and younger made up 9% of the respondents, 80% were 21 to 59 years old, and 12% were 60 or older. Seventy-two percent of respondents reported being White, 17% were Black or African American, and 7% reported being of Spanish or Hispanic descent. Fifty-eight drove cars, 20% SUVs, 10% pickup trucks, 6% minivans, and 2% full vans as their primary vehicles (4% drove "other" types of vehicle).

Awareness data were analyzed using chi-squares primarily examining pre- to post- changes within wave and baseline to final post. If responses contained more than two options (i.e., were not "yes" or "no" responses) categories were combined to create two options (i.e., "Always" and "Nearly Always" versus other responses, "Very Strict" and "Strict" versus other responses).

IV. RESULTS

Enforcement and Media Activity

A. Earned Media

The primary source of data to determine relative strength of the earned media is the number of CustomScoop clips per wave by area. Table 5 shows that Wave 2 had the most articles released in the enforcement States (Connecticut: 15; New York: 33). For Connecticut, Wave 3 produced the fewest clips. New York showed the least number of clips for the final wave.

Wave	Connecticut	New York	Total
1	11	22	33
2	15	33	48
3	9	21	30
4	14	6	20
All	49	82	131

Table 5. Number of CustomScoop clips

B. Paid Media

The number of GRPs bought is an excellent indication of the strength of the paid media campaign. However, the number of GRPs bought for television spots are based on ratings for television programs airing the same month of the previous year and can therefore lead to a disparity between GRPs bought and actual GRPs delivered. As such, "post-buy" analyses are used to gauge the actual strength of a media buy. It is expected that there will be a range of $\pm 10\%$ between the buy and actual delivery (that is, between 90% and 110% of what was bought). Table 6 indicates that for 5 of the 8 buys the media was delivered at an expected rate. For Wave 2 in Hartford and Waves 1 and 3 in Syracuse the delivery was less than expected. There are no gauges of actual delivery for radio buys.

Table 6. GRPS for Television Media									
	WAVE 1		WAVE 2		WAVE 3		WAVE 4		
	Hartford	Syracuse	Hartford	Syracuse	Hartford	Syracuse	Hartford	Syracuse	
Bought	535.5	535.5	309.1	300	291.9	207.5	316.5	310.4	
Actual	564.9	441.1	266.9	272.7	287.2	135.2	316.3	300.5	
% Goal	105%	82%	86%	91%	98%	65%	100%	97%	

Table 6. GRPs for Television Media

C. Enforcement

Department Provided Citation Data

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. Syracuse preferred having patrol vehicles strategically placed where the officer could observe drivers discretely, actively seeking out distracted drivers using cell phones or texting. Officers reported that higher vantage points, SUVs, and unmarked vehicles were particularly effective in assisting to identify violators. Roll call training before the enforcement and debriefings after each wave addressed operational issues as they arose. Both States found that flexibility in scheduling overtime shifts as needed was critical to success. Both Highway Safety offices prepared citation holders that officers used to hold the tickets and specific information about their State's cell phone laws, the fine amount, and the risks associated with distraction.

Both Hartford and Syracuse dedicated officers to vigorously enforce the hand-held cell phone ban during the four waves, exceeding benchmarks based on previous HVE campaigns. Table 7 shows the number of enforcement hours, phone and texting citations issued in each site, and the rate of citations per 10,000 of each city's population. On average the police wrote more than 60 times more tickets compared to the same dates one year earlier.

	Table 7. Emorement Data									
	Wave 1		Wave 2		Wa	ve 3	Wa	ve 4	Average per wave	
	Hartford	Syracuse	Hartford	Syracuse	Hartford	Syracuse	Hartford	Syracuse	Hartford	Syracuse
Enforcement Hours	1,345	1,370	1,345	1,337	1,045	1,345	1,272	1,307	1,252	1,340
Hand-Held Use	2,229	2,185	2,327	1,977	2,257	2,341	2,621	2,354	2,359	2,214
Text/ Distraction	24	115	21	169	64	183	115	263	56	183
"Distracted Driving" One Year Prior	18	27	44	40	63	48	31	*	39	38
Citations/ 10k Pop.	97	167	100	156	99	183	117	190	103	174

Table 7. Enforcement Data

* For Syracuse, Wave 1 was one year prior to Wave 4.

Program Awareness in Connecticut

A. Messaging Awareness

Respondents were asked if they heard about cell phone enforcement. Each wave, after Wave 1, showed statistically significant increases from pre- to post-wave (see Figure 4). Awareness of the enforcement more than doubled from before Wave 1 to after Wave 4 (from 31% to 71%; $\chi^2 = 304.0$, p < 0.001). There were also more modest increases in the comparison area with significant increases from pre- to post- in Waves 3 ($\chi^2 = 28.2$, p < 0.001) and 4 ($\chi^2 = 115.0$, p < 0.001), overall resulting in an 11-percentage-point increase in awareness of cell phone enforcement in the control site over the course of the program) ($\chi^2 = 33.5$, p < 0.001).

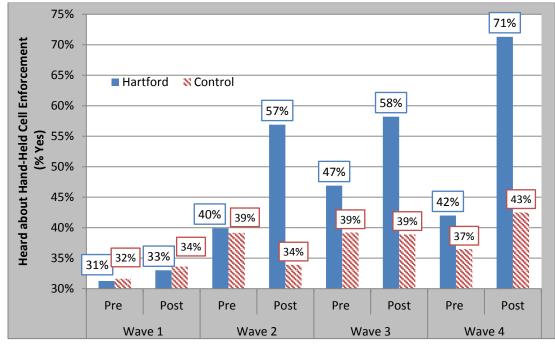


Figure 4. Connecticut Awareness of Enforcement - Heard About Cell Phone Enforcement

When asked if they heard anything about distracted driving, Hartford respondents showed increased awareness before and after Wave 2 ($\chi^2 = 39.6$, p < 0.001), Wave 3 ($\chi^2 = 20.0$, p < 0.001), and Wave 4 ($\chi^2 = 58.2$, p < 0.001). Figure 5 shows that the overall increase was 24 percentage points from the baseline to the end of the fourth and final wave ($\chi^2 = 129.6$, p < 0.001). There was a comparatively modest increase (9 percentage points) in the control area over the course of the program ($\chi^2 = 21.8$, p < 0.001).

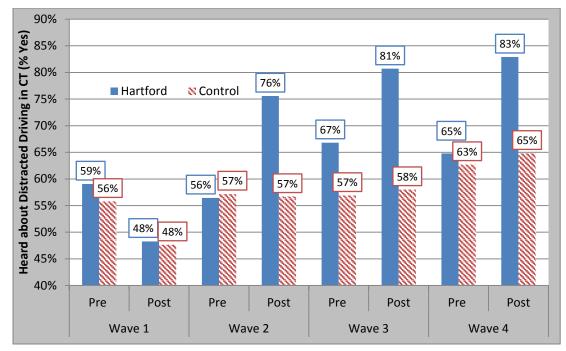


Figure 5. Connecticut Awareness of Distracted Driving

Respondents were asked if they recognized certain slogans. The tag line for the program, *Phone in One Hand, Ticket in the Other,* showed a significant increase in the enforcement area in each wave (all $\chi^2 > 18.3$; *ps* < 0.001) and an overall increase from baseline to the end of the fourth Wave. Recognition of NHTSA's distracted driving message increased from 5% to 54% ($\chi^2 = 569.6$, *p* < 0.001, see Figure 6). There were also modest increases for the comparison area from start to end of the program ($\chi^2 = 46.0$, *p* < 0.001) with a significant increase during Wave 1($\chi^2 = 26.1$, *p* < 0.001).

The *I-Promise* campaign showed some increases in awareness as did the *Just Drive* slogan (Wave 1). The *Don't Tempt F8, that TXT can W8* slogan also increased over the course of the one-year program, but dropped back down during the second wave. Other slogans, including *Put it Down* (added in the Wave 2 survey) did not show any significant changes from wave to wave (see Table 8).

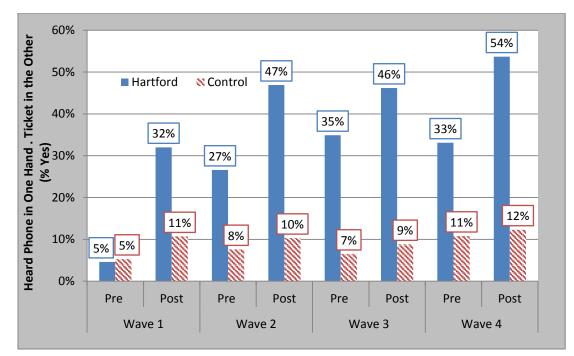


Figure 6. Connecticut Awareness of Phone in One Hand, Ticket in the Other Slogan.

Table 6. Connecticut messaging Awareness											
		Wave 1		Wave 2		Wave 3		Wa	ve 4		
In the past month heard	Area	Pre	Post	Pre	Post	Pre	Post	Pre	Post		
	Hartford	7%	9%	7%	8%	8%	9%	5%	5%		
"No Phone Zone" (% Yes)	Control	6%	12%	9%	9%	9%	5%	7%	5%		
	Hartford			2%	2%	1%	2%	4%	4%		
"Put It Down" (% Yes)	Control			6%	4%	4%	4%	5%	5%		
	Hartford	9%	13%	13%	15%	14%	13%	13%	15%		
"I Promise" (% Yes)	Control	3%	3%	5%	7%	5%	9%	6%	6%		
	Hartford	23%	28%	10%	10%	10%	10%	15%	13%		
"Hang Up or Pay Up" (% Yes)	Control	10%	15%	10%	9%	10%	9%	11%	9%		
	Hartford	5%	16%	3%	2%	3%	2%	2%	4%		
"Just Drive" (% Yes)	Control	6%	17%	5%	4%	4%	3%	4%	4%		
	Hartford	3%	6%	4%	1%	1%	1%	1%	1%		
"Don't Tempt F8, That TXT Can W8" (% Yes)	Control	1%	1%	1%	1%	1%	2%	1%	2%		
	Hartford	15%	13%	7%	8%	9%	9%	9%	12%		
"Texting and Driving, It Can Wait" (% Yes)	Control	7%	8%	9%	7%	10%	9%	10%	11%		

Table 8. Connecticut Messaging Awareness

Bold text indicated significant (p < 0.05) difference between the pre- and post- values for a given wave.

B. Awareness of Enforcement

There was a significant increase during Wave 1 in the percentage of drivers in the enforcement area reporting that they would always or nearly always get a ticket if using a hand-held phone

while driving (from 15% to 23%) (see Table 9). That level was maintained or crept up during the course of the program. Overall, respondents were more than twice as likely to report that they had a high likelihood of getting a ticket when comparing baseline to post-Wave 4 (15% to 33%) ($\chi^2 = 87.9$, p < 0.001). There was no effect in the comparison area ($\chi^2 = 1.5$, p > 0.05).

Perception of how strictly the police enforced the hand-held law in the enforcement area wavered from wave to wave with a significant increase at the end of the first wave; a significant decrease during Wave 2; and no change in Waves 3 and 4. Overall respondents reported an increase of 10 percentage points that the police were very strict or strict in enforcing the hand-held law from baseline to final measurement ($\chi^2 = 20.1$, p < 0.001). There was also a significant increase in Wave 1 but not for the other 3 waves in the control area resulting in an increase from baseline to the final measurement in the control area ($\chi^2 = 10.1$, p < 0.01).

Most respondents said that it was important for the police to enforce the hand-held law. There was an initial decrease in the percentage of respondents in the Hartford area saying that it was important for police to enforce the hand-held law (80% to 62%). The rating of importance went back up to around 90% for all subsequent waves with an overall increase of 9 percentage points ($\chi^2 = 30.2, p < 0.001$). The comparison area results were fairly constant across all measurements with no significant change from baseline to the end of the fourth wave ($\chi^2 = 0.1, p > 0.05$). Self-reports of having been ticketed went up in the enforcement area for Wave 1 for both the question asking if drivers had "ever" gotten a cell phone ticket and if they had gotten one in the past 30 days. There were no other statistically significant changes for these questions in the enforcement area for the question asking if they ever got a ticket for using a hand-held phone while driving ($\chi^2 = 5.7, p < 0.05$).

		Wa	Wave 1 Wave 2		ve 2	Wave 3		Wave 4	
Question	Area	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Chance of Being Ticketed if Use HH Cell	Hartford	15%	23%	22%	22%	21%	24%	29%	33%
(% Always/Nearly Always)	Control	22%	21%	20%	23%	27%	25%	29%	24%
How Strictly Do Police Enforce HH Law	Hartford	39%	64%	47%	40%	47%	51%	50%	49%
(% Very Strict/Strict)	Control	37%	43%	39%	39%	44%	43%	45%	43%
	Hartford	80%	62%	90%	88%	93%	92%	90%	89%
Important for Police to Enforce (% Yes)	Control	88%	84%	88%	88%	90%	87%	90%	89%
	Hartford	7%	12%	6%	8%	9%	7%	6%	8%
Ever Get A Ticket for HH (%Yes)?	Control	9%	11%	11%	9%	10%	14%	10%	12%
	Hartford	3%	10%	1%	2%	3%	2%	2%	2%
In Past Month Got Ticket for HH Cell? (% Yes)	Control	1%	4%	1%	2%	1%	3%	2%	1%

 Table 9. Connecticut Attitudes and Experience Regarding Enforcement of Hand-Held (HH) Phone Law

Bold text indicated significant (p < 0.05) difference between the pre- and post- values for a given wave.

Program Awareness in New York

A. Messaging Awareness

There were significant increases in Syracuse drivers reporting that they had heard about distracted driving enforcement before and after all waves (see Figure 7) (all $\chi^2 > 5.1$, all *ps* < 0.05). There was also increased awareness, from pre- to post, in Waves 3 and 4 in Albany. The increased awareness from pre-Wave 1 to post-Wave 4 was significant in both areas (Syracuse: $\chi^2 = 261.6$, *p* < 0.001; Control: $\chi^2 = 46.6$, *p* < 0.001).

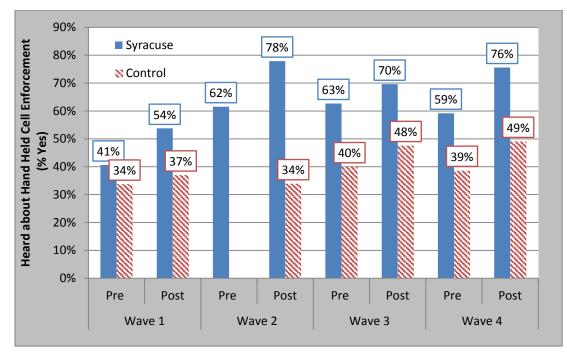


Figure 7. New York Awareness of Enforcement

There was an unexpected decrease ($\chi^2 = 7.2$, p < 0.01) in Wave 1 among Syracuse respondents having heard about distracted driving in general while there was a significant increase in Albany, the control site ($\chi^2 = 10.9$, p < 0.01)(see Figure 8). There were significant increases on this item in both areas for Wave 4 (Syracuse: $\chi^2 = 10.1$, p < 0.01; Control: $\chi^2 = 15.9$, p < 0.001). Overall both areas showed increases in awareness of distracted driving messaging from baseline to the end of the fourth wave (Syracuse: $\chi^2 = 37.2$, p < 0.001; Control: $\chi^2 = 49.9$, p < 0.001).

There were significant increases in the proportion of respondents having heard NHTSA's *Phone in One Hand, Ticket in the Other* slogan in every wave in Syracuse (all $\chi^2 > 4.4$, all *ps* < 0.05) and no waves were significant in the control site (see Figure 9). From baseline to the end of the fourth and final wave there was a 24-percentage-point increase in awareness of the slogan in Syracuse ($\chi^2 = 230.2$, *p* < 0.001) compared to a 1-percentage-point increase in Albany.

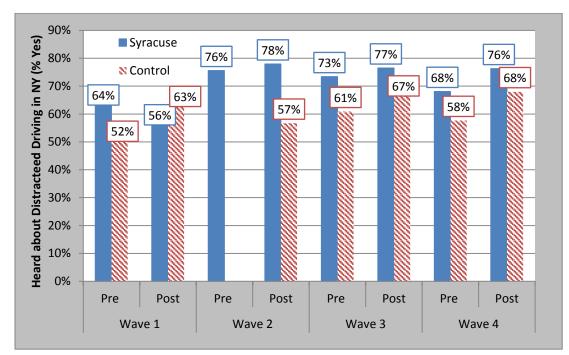


Figure 8. New York Awareness of Distracted Driving

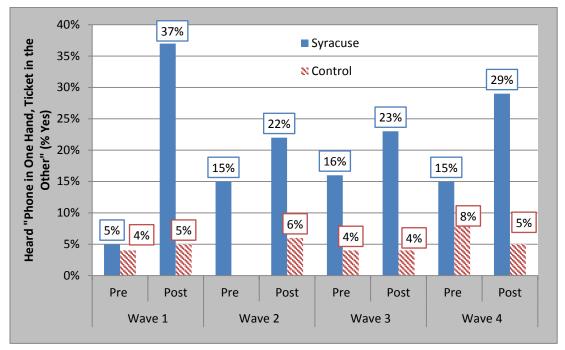


Figure 9. New York Awareness of the Phone in One Hand, Ticket in the Other Slogan.

Drivers had heard other messages during this time as well. The *No Phone Zone* and *Put it Down* messages (added to the surveys for the second wave) showed significant decreases in awareness

in Syracuse during Wave 2. Other slogans also showed significant decreases in Syracuse during that wave and had periodic pre- to post- changes. None of the other slogans reached the level of awareness as *Phone in One Hand, Ticket in the Other* (see Table 10).

Table 10. Tel Tolk Messaging Awareness									
		Wave 1		Wa	Wave 2		Wave 3		ve 4
In the past month heard	Area	Pre	Post	Pre	Post	Pre	Post	Pre	Post
	Syracuse	6%	5%	7%	4%	8%	8%	7%	6%
"No Phone Zone" (% Yes)	Control	9%	7%		7%	8%	8%	5%	6%
	Syracuse			4%	2%	3%	4%	3%	4%
"Put it Down" (% Yes)	Control				6%	5%	5%	5%	4%
	Syracuse	3%	2%	3%	2%	3%	5%	3%	3%
"I Promise" (% Yes)	Control	2%	3%	2%	4%	2%	4%	3%	3%
	Syracuse	10%	18%	11%	7%	12%	13%	12%	13%
"Hang Up or Pay Up" (% Yes)	Control	7%	10%		12%	9%	13%	11%	10%
	Syracuse	6%	10%	5%	2%	2%	3%	3%	3%
"Just Drive" (% Yes)	Control	5%	7%		3%	3%	4%	5%	5%
"Don't Tempt F8, That TXT Can W8" (%	Syracuse	1%	1%	0%	1%	1%	2%	1%	2%
Yes)	Control	5%	1%		2%	1%	!%	1%	2%
"Texting and Driving, It Can Wait" (%	Syracuse	9%	6%	9%	5%	8%	14%	8%	10%
Yes)	Control	9%	9%		8%	10%	7%	13%	9%

Table 10. New York Messaging Awareness

Bold text indicated significant (p < 0.05) difference between the pre- and post- values for a given wave.

B. Awareness Regarding Enforcement

There were no significant differences in the perceived risk of being ticketed if a driver used a hand-held phone while driving in any of the waves (see Table 11). Perceptions of strictness of enforcement, however, showed significant increases for Wave 1 and Wave 2 in Syracuse in the before and after measures (Wave 1: $\chi^2 = 16.7$, p < 0.001; Wave 2: $\chi^2 = 23.6$, p < 0.001). In the control site, Albany, there was a significant decrease in perceived strictness of law enforcement during the first wave ($\chi^2 = 5.0$, p < 0.05). From baseline to the end of Wave 4 there was a significant increase in perceptions of police strictness in Syracuse ($\chi^2 = 24.6$, p < 0.001) but not in Albany.

More respondents reported that it was important for police to enforce the law in Syracuse ($\chi^2 = 5.7, p < 0.05$) and this increased from Wave 1 through Wave 4. This effect reversed itself, however, in Wave 2 ($\chi^2 = 4.6, p < 0.05$). In both the test and control sites, there was a significant increase in the percentage of respondents feeling that it was important for the police to enforce the law (Syracuse: $\chi^2 = 7.2, p < 0.01$; Control: $\chi^2 = 7.4, p < 0.01$) from the beginning of the program to its conclusion. There were no changes in either area in the number of respondents who said they had ever gotten a ticket for violating the hand-held law. When asked if they had gotten a ticket in the past month more Syracuse respondents said yes at the end of the first wave

than baseline $1(\chi^2 = 11.4, p < 0.01)$. There were no other significant changes in this question for each of the other waves, but the overall increase from baseline to the end of Wave 4 in Syracuse was small but significant ($\chi^2 = 7.2, p < 0.01$).

					0 0				
			ve 1	Wa	ive 2	Wave 3		Wave 4	
Question	Area	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Chance of Being Ticketed if Use HH Cell	Syracuse	22%	20%	22%	26%	26%	24%	24%	26%
(% Always/Nearly Always)	Control	17%	20%		23%	26%	24%	24%	20%
How Strictly Do Police Enforce HH Law	Syracuse	42%	54%	39%	55%	50%	51%	56%	53%
(% Very Strict/Strict)	Control	48%	42%		41%	48%	47%	44%	46%
	Syracuse	83%	88%	90%	85%	83%	85%	86%	87%
Important for Police to Enforce (% Yes)	Control	81%	82%		83%	83%	84%	84%	86%
	Syracuse	10%	10%	7%	8%	10%	12%	11%	10%
Ever Get A Ticket for HH (%Yes)?	Control	8%	10%		9%	9%	11%	10%	10%
	Syracuse	1%	4%	2%	2%	1%	3%	2%	2%
In Past Month Got Ticket for HH Cell? (% Yes)	Control	1%	1%		1%	1%	2%	1%	1%

Table 11. New York Attitudes and Experience Regarding Enforcement

Bold text indicated significant (p < 0.05) difference between the pre- and post- values for a given wave.

Observed Use in Connecticut

A. Hand-Held Cell Phone Use

Observed hand-held phone use for the comparison area and the treatment area was similar during baseline (see Figure 10). In Hartford, there was a significant decrease in the percentage of drivers observed using a hand-held cell phone after the first wave ($\chi^2 = 59.7$, p < 0.001). The change in the control area after Wave 1 was not significant. In fact, all pre- to post- changes in Hartford were significant (all $\chi^2 > 24.0$, ps < 0.001) and none of the changes in the comparison area were significant (all ps > 0.05) for any of the waves.

Hartford drivers maintained the decrease in observed use through the pre- measurements for Wave 2. From the end of Wave 2 to the pre- measurements for Wave 3, however, there was a large significant ($\chi^2 = 70.7$, p < 0.001) increase in hand-held use. Subsequent waves of enforcement drove the use rate back down. Overall, from the baseline observations to the end of the fourth wave there was a significant decrease in both the Hartford area ($\chi^2 = 85.6$, p < 0.001) and the comparison area ($\chi^2 = 7.7$, p < 0.01). According to the two-way interaction, the decrease in Hartford was significantly greater than the decrease in the comparison area ($\chi^2 = 41.0$, p < 0.001).

There were, on average, about 7,428 observations per round of data collection in the Hartford area. Using this average to normalize the data, Wave 1's enforcement led to an estimated 186

fewer drivers using their hand-held cell phones at the times and places of the observations. In Waves 2, 3, and 4, there were estimated 111, 163, and 149 fewer users, respectively, observed to be using hand-held phones while driving. From baseline through the end of the high-visibility distracted driving enforcement campaign there was an estimated 290 fewer drivers talking on hand-held cell phones while driving as a result of the enforcement.

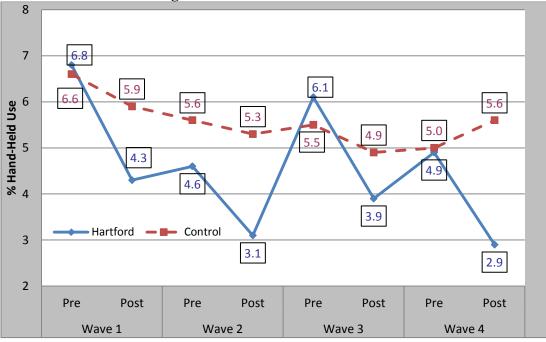


Figure 10. Connecticut Hand-Held Phone Use

The effects of the campaign were generally similar across vehicle types (see Table 12). From baseline to the final observations, drivers in passenger cars decreased their hand-held phone use from 6.1% to 3.3% ($\chi^2 = 29.5$, p < 0.001); pickup trucks decreased from 9.9% to 4.4% ($\chi^2 = 11.3$, p < 0.01); SUVs decreased from 7.3% to 2.0% ($\chi^2 = 33.1$, p < 0.001); and vans decreased from 6.6% to 2.3% ($\chi^2 = 11.0$, p < 0.01). In the control area, only the decrease among passenger car drivers from 5.9% to 4.8% was significant ($\chi^2 = 5.7$, p < 0.05).

In both Hartford and the control area, across all waves, observed hand-held cell phone use was consistently highest among younger drivers (6.7%), lowest among the oldest drivers (0.7%), with the middle age group in the middle (4.7%) ($\chi^2 = 138.7$, p < 0.001) (see Table 13). The comparable observed hand-held phone use rates in the control areas by age were young (7.2%), middle (5.7%), and old (1.5%) ($\chi^2 = 223.1$, p < 0.001). In Hartford, observed hand-held phone use for young drivers decreased from 9% from the baseline measurement to 2.6% at the end of the fourth wave ($\chi^2 = 7.8$, p < 0.01). Middle aged drivers observed use decreased from 6.8% to 3.2 % ($\chi^2 = 70.2$, p < 0.001) and the older drivers' use decreased from 1% to 0% (p > 0.05) over the course of the program.

Overall in the Hartford area, women had slightly higher hand-held usage rates (4.9%) than did men (4.3%) ($\chi^2 = 12.3$, p < 0.001) and both decreased in the first wave. Male drivers decreased their hand-held use from 6.6% to 2.4% ($\chi^2 = 41.0$, p < 0.001) and female drivers' observed hand-held use rates decreased from 6.9% to 3.8% ($\chi^2 = 22.8$, p < 0.001) (See Table 14).

In Hartford, observed hand-held use was lowest in the morning (4.2%), afternoon use was highest (4.8%) and evening use was in between (4.6%) across all measurements ($\chi^2 = 9.0$, p < 0.05). In the control area morning use was lowest (4.8%), evening use was highest (6.0%), followed by afternoon use (5.8%) ($\chi^2 = 40.6$, p < 0.001). There was no consistent pattern indicating any difference in effectiveness of the program by time of day in Hartford.

Wave	Vehicle		Hart	ford	Con	trol
viuve	Туре		Pre	Post	Pre	Post
	Car	% Use	6.1%	4.0%	5.9%	5.4%
		N	5903	6029	5353	5166
	Pickup	% Use	9.9%	4.5%	7.4%	7.0%
1	Truck	N	706	760	780	784
1	SUV	% Use	7.3%	4.4%	6.9%	6.2%
		N	2043	2170	2680	2566
	Van	% Use	6.6%	4.6%	9.1%	7.6%
	V ull	Ν	952	930	878	964
	Car	% Use	4.2%	2.8%	4.9%	4.5%
		N	5666	5828	5330	5309
	Pickup	% Use	5.1%	2.2%	5.5%	8.1%
2	Truck	Ν	719	814	758	801
2	SUV	% Use	4.8%	3.6%	6.0%	5.9%
		N	2042	2124	2633	2627
	Van	% Use	5.4%	3.8%	8.9%	6.5%
		Ν	859	940	949	1006
	Car	% Use	5.8%	3.6%	4.8%	4.1%
		N	3021	4470	5106	5080
	Pickup	% Use	7.4%	3.4%	6.7%	5.5%
3	Truck	N	323	526	818	767
5	SUV	% Use	6.3%	5.0%	5.9%	5.4%
		N	957	1588	2651	2554
	Van	% Use	6.0%	4.0%	6.2%	6.8%
	V ull	Ν	416	630	1053	965
	Car	% Use	4.8%	3.3%	4.4%	4.8%
		N	2840	2763	4999	4991
	Pickup	% Use	5.4%	4.0%	5.5%	7.4%
	Truck	N	314	351	636	807
4		% Use	4.4%	2.0%	4.9%	5.8%
	SUV	N	890	907	2674	2608
		% Use	5.4%	2.3%	7.7%	7.4%
	Van	N	466	474	1006	983
			400	4/4	1000	903

 Table 12. Connecticut Observed Hand-Held Use by Vehicle Type

Wave	Age		Hart	Con	itrol	
wave	Age		Pre	Post	Pre	Post
	Young	% Use	9.0%	3.7%	8.8%	7.6%
		N	111	191	878	1030
1	Middle	% Use	6.8%	4.5%	6.7%	6.0%
1	Aged	Ν	9204	9018	8166	7825
	Older	% Use	1.0%	0.9%	1.9%	2.6%
		Ν	288	680	646	625
	Young	% Use	5.1%	4.3%	7.3%	6.6%
		N	138	117	1145	1273
2	Middle	% Use	4.7%	3.2%	5.8%	5.6%
2	Aged	Ν	8644	8937	7839	7683
	Older	% Use	1.2%	0.8%	1.2%	1.4%
		N	503	651	688	787
	Young	% Use	8.3%	8.7%	7.0%	7.5%
		N	988	809	998	903
3	Middle	% Use	5.9%	3.6%	5.6%	4.9%
5	Aged	N	3438	6026	7813	7715
	Older	% Use	0.0%	0.5%	1.2%	1.3%
	Older	N	291	377	817	748
	Young	% Use	2.8%	2.6%	6.1%	7.2%
	Toung	N	321	274	916	1132
4	Middle	% Use	5.2%	3.2%	5.2%	5.7%
-	Aged	Ν	3998	4038	7682	7750
	Older	% Use	0.5%	0.0%	1.5%	0.6%
	Oluei	Ν	190	182	717	507

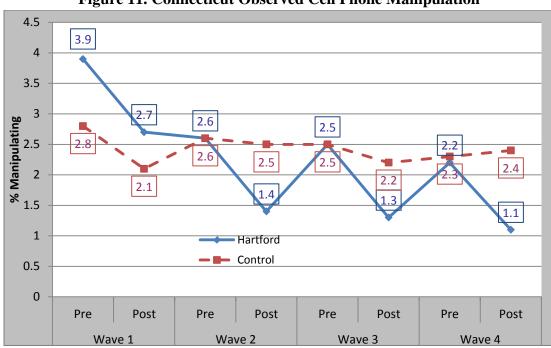
Table 13. Connecticut Observed Hand-Held Use by Age Category

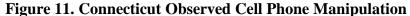
Wave	Sex		Har	tford	Con	trol
wave	БСА		Pre	Post	Pre	Post
	Male	% Use	6.6%	4.0%	6.1%	5.9%
1		N	5598	5981	5678	5686
1	Female	% Use	6.9%	4.5%	7.2%	6.0%
	Temate	N	4005	3907	4013	3793
	Male	% Use	4.2%	2.8%	5.2%	5.7%
2		N	5562	6073	5619	5782
2	Female	% Use	5.1%	3.4%	6.2%	5.0%
		Ν	3724	3630	4053	3961
	Male	% Use	5.6%	3.8%	5.4%	4.7%
3		N	2662	4184	5645	5472
5	Female	% Use	6.6%	4.1%	5.5%	5.1%
	1 cillate	Ν	2055	3026	3983	3894
	Male	% Use	4.9%	2.4%	5.2%	5.3%
4	Wate	Ν	2636	2552	5471	5522
4	F 1	% Use	4.8%	3.8%	4.7%	6.0%
	Female	N	1873	1918	3844	3867

 Table 14. Connecticut Observed Hand-Held Use by Sex Category

B. Phone Manipulation in Connecticut

Analyses explored the effect of the program on cell phone manipulation (e.g., texting, sending email messages, or manipulating navigation devices). In Hartford in each of the 4 waves there were significant decreases in the percentage of drivers manipulating their phones (all χ^2 >14.7, *ps* <0.001; see Figure 11). In the control area there was a significant decrease in observed cell phone manipulation only in the first wave ($\chi^2 = 11.7$, *p* < 0.01). Overall, there was a significant decrease from the baseline (3.9%) through the end of the fourth wave (1.1%) for the treatment area, Hartford ($\chi^2 = 70.8$, *p* < 0.001), but not for the control area (2.8% to 2.4%; *p* > 0.05)². The interaction between areas was also significant ($\chi^2 = 39.8$, *p* < 0.001) indicating there was a bigger effect in the Hartford than in the control area.

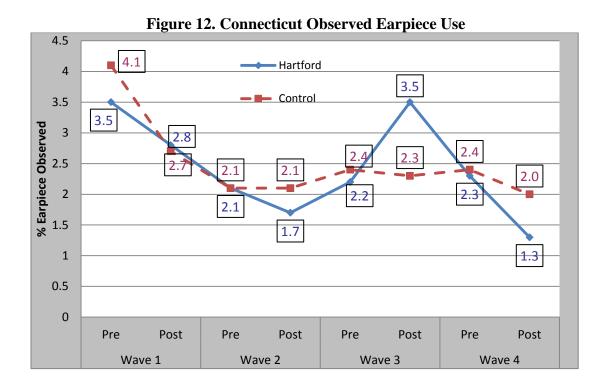




² Smaller Ns in Wave 4 resulted in the difference in Pre-Wave 1 to Post-Wave 4 being not significant despite being a larger absolute difference than the significant pre-Wave 1 to post-Wave 1 difference.

C. Earpiece Use in Connecticut

The analyses of observed earpiece use (hands-free cell phone) fluctuated between the four enforcement waves. In Hartford there were significant decreases (all $\chi^2 > 9.8$, all ps < 0.01) in Waves 1 and 4 and a significant increase immediately before and after Wave 3 ($\chi^2=13.3$, p < 0.001) (see Figure 12). The control area also showed significant lower observed use rates in Waves 1 and 4 (Wave 1: $\chi^2=29.0$, p < 0.001; Wave 4: $\chi^2=5.0$, p < 0.01). Both test and control areas had significant declines from the baseline to the end of the fourth wave (Hartford 3.5% to 1.3%; $\chi^2=560.4$, p < 0.001; control 4.1% to 2.0%; $\chi^2=71.1$, p < 0.001) but the interaction was not significant. Overall observed earpiece use went down in both areas but the change was generally parallel between enforcement area and the control area with the exception of the third wave increase in Hartford.



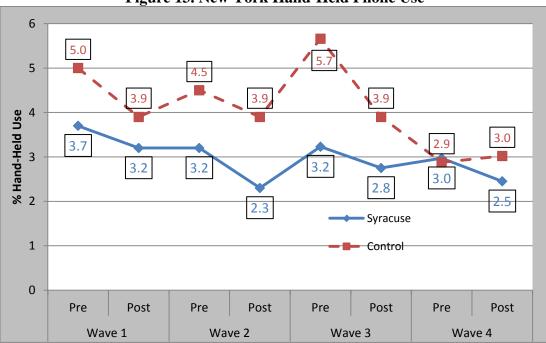
Observed Use in New York

A. Hand-Held Cell Phone Use

The baseline observed hand-held cell phone use rate in Syracuse was substantially lower than it was in Albany (see Figure 13). In Syracuse it fluctuated from wave to wave, decreasing at the end of each wave. There was a slight decrease in hand-held cell phone use at the end of Wave 1 that was not significant ($\chi^2 = 2.8$, p > 0.05). The observed decrease in Wave 2 was significant ($\chi^2 = 11.4$, p = 0.001), was not significant in Wave 3 ($\chi^2 = 3.10$, p = 0.077), but was significant in Wave 4 ($\chi^2 = 3.9$, p < 0.05).

The moderate decrease in observed hand-held phone use made after Wave 1 in Syracuse was maintained into the start of Wave 2, but as with Connecticut, the start of Wave 3 saw an increase in use returning to the previous observed level. The control site, Albany, had decreases in Waves 1, 2, and 3 that were significant in Waves 1 and 3 (Wave 1: $\chi^2 = 5.1$, p < 0.05; Wave 3: $\chi^2 = 11.0$; p < .01) but not Waves 2 and 4. The overall decrease in usage from baseline to the end of the HVE campaign in Syracuse was significant ($\chi^2 = 19.0$, p < 0.001), and so was the decrease in Albany ($\chi^2 = 19.2$, p < 0.001). There was not a significant interaction.

There was an average of 7,829 observations per data collection round in Syracuse. Using this value (7,829) to normalize the data, there were an estimated 39 fewer drivers using their handheld cell phones as a result of the Wave 1 intervention at the sites and times of the observations. Wave 2 resulted in 70 fewer drivers using a hand-held phone. Waves 3 and 4 resulted in 38 and 41 fewer drivers using hand-held phones respectively. From the baseline to the final measurement at the end of the fourth wave there were an estimated 98 fewer drivers using hand-held phones during observations in Syracuse.





The effects of enforcement in Syracuse were similar across vehicle types. From the baseline to the end of Wave 4, observed hand-held phone use decreased among drivers of passenger cars (3.1% to 2.3%; $\chi^2 = 5.7$, p < 0.05); pickup trucks (5.9% to 2.6%; $\chi^2 = 7.9$, p < 0.01); SUVs (4.0% to 2.7%; $\chi^2 = 5.1$, p < 0.05); and vans (4.7% to 2.6%; $\chi^2 = 6.9$, p < 0.01). In Albany, passenger car drivers' observed hand-held use significantly decreased from 4.2% to 2.3% ($\chi^2 = 13.9$, p < 0.05); and vans (4.7% to 2.6%); $\chi^2 = 6.9$, p < 0.01).

0.001) and SUV drivers' hand-held use decreased significantly from 6.7% to 4.3% ($\chi^2 = 4.3$, p < 0.05). The other vehicle type drivers in the control area did not have significant changes in hand-held use (see Table 15).

In both Syracuse and Albany, across all waves, observed hand-held use by the youngest drivers was the highest (3.2%), followed by the middle age group (3.1%), and then the older drivers (0.7%; $\chi^2 = 86.4$, p < 0.001) (see Table 16). The comparable rates in the control area were youngest (5.0%), middle age group (4.4%), and oldest drivers (1.4%; $\chi^2 = 82.4$, p < 0.001). In Syracuse, there was a significant decrease in in hand-held cell phone use for the middle age group (4.0% to 2.7%; $\chi^2 = 15.9$, p < 0.001) but not for the youngest group (3.9% to 2.7%) or the oldest drivers (0.6% to 0.4%) from baseline to the end of the final wave. In the Albany control area there was a significant decrease in the young drivers (5.4% to 3.0%; $\chi^2 = 4.9$, p < 0.05) and the middle aged drivers (5.8% to 3.5%; $\chi^2 = 14.1$, p < 0.001) but not for the oldest group (2.1% to 0.7%) from baseline to the end of the fourth wave.

Women drivers in Syracuse had significantly higher observed hand-held phone use (3.3%) than did men (2.6%; $\chi^2 = 23.9$, p < 0.001). The same was true for the control area (Women: 4.5%; Men: 3.8%; $\chi^2 = 7.3$, p < 0.01). By the end of Wave 4, observed hand-held use for male drivers decreased significantly (3.8% to 1.9%; $\chi^2 = 28.4$, p < 0.001) but not for female drivers (3.6% to 3.1%) (see Table 17).

In Syracuse, hand-held phone use was lowest in the morning hours (2.4%) followed by evening use (3.0%) and was highest in the afternoon (3.3%) ($\chi^2 = 24.3$, p < 0.001). In the control area, mornings also showed the lowest use (3.4%) but evenings were highest (4.7%) followed by afternoons (4.0%) ($\chi^2 = 17.9$, p < 0.001). There was no consistent pattern indicating any difference in effectiveness of the program by time of day.

Wave	Vehicle		Syra	icuse	Con	itrol
	Туре		Pre	Post	Pre	Post
1	Car	% Use	3.1%	2.8%	4.2%	3.6%
		N	4144	4532	2098	1910
	Pickup Truck	% Use	5.9%	3.8%	6.6%	3.0%
	Huck	N	544	653	259	266
	SUV	% Use	4.0%	3.6%	6.7%	4.8%
		N	1643	1865	719	670
	Van	% Use	4.7%	3.2%	6.8%	5.0%
		Ν	770	907	325	317
2	Car	% Use	2.8%	2.4%	3.9%	3.4%
		N	4491	4502	2002	2120
	Pickup Truck	% Use	3.6%	2.7%	4.9%	3.8%
	Huck	Ν	617	700	267	293
	SUV	% Use	3.6%	2.4%	6.5%	6.1%
		N	1800	1805	690	704
	Van	% Use	4.3%	1.7%	4.9%	2.9%
		Ν	880	953	304	339
3	Car _	% Use	3.2%	2.3%	5.0%	3.6%
		N	4680	4647	1937	2097
	Pickup Truck	% Use	2.2%	3.7%	7.4%	5.6%
	Huek	Ν	631	652	244	305
	SUV	% Use	3.3%	3.3%	7.7%	4.3%
		N	1862	1959	639	633
	Van	% Use	3.4%	2.6%	3.8%	3.8%
		Ν	885	1000	287	312
4	Car	% Use	2.4%	2.3%	2.5%	2.3%
		Ν	4285	4355	2199	2514
	Pickup	% Use	2.7%	2.6%	4.4%	4.3%
	Truck	N	629	646	293	301
	SUV	% Use	4.2%	2.7%	3.0%	4.3%
		N	1884	1915	701	816
	Van	% Use	2.8%	2.4%	4.7%	5.1%
		N				
			857	935	297	334

 Table 15. New York Observed Hand-Held Use by Vehicle Type

Wave	Age		Syra	icuse	Con	trol
wave	Age		Pre	Post	Pre	Post
		% Use	3.9%	3.7%	2.7%	3.8%
	Young	Ν	727	807	698	663
	Middle	% Use	4.0%	3.2%	3.4%	2.4%
	Aged	Ν	5897	6736	6426	6662
		% Use	0.6%	1.4%	1.4%	0.6%
1	Older	Ν	477	414	664	636
		% Use	2.7%	3.8%	3.2%	2.6%
	Young	Ν	698	663	909	605
	Middle	% Use	3.4%	2.4%	3.4%	2.8%
	Aged	Ν	6426	6662	6520	7202
		% Use	1.4%	0.6%	0.6%	0.7%
2	Older	Ν	664	636	628	452
		% Use	3.2%	2.6%	2.8%	2.7%
	Young	N	909	605	872	791
	Middle	% Use	3.4%	2.8%	3.2%	2.7%
	Aged	Ν	6520	7202	6213	6238
		% Use	0.6%	0.7%	0.4%	0.4%
3	Older	Ν	628	452	571	821
		% Use	2.8%	2.7%	5.4%	5.5%
	Young	Ν	872	791	519	620
	Middle	% Use	3.2%	2.7%	5.8%	4.1%
	Aged	Ν	6213	6238	2366	2098
		% Use	0.4%	0.4%	2.1%	1.4%
4	Older	Ν	420	433	367	446

Table 16. New York Observed Hand-Held Use by Age

Wave	Sex		Syra	cuse	Control			
wave	DEA		Pre	Post	Pre	Post		
		% Use	3.8%	2.7%	5.1%	3.4%		
	Male	N	3948	4472	1916	1875		
		% Use	3.6%	3.7%	5.3%	4.7%		
1	Female	N	3153	3485	1483	1285		
		% Use	3.3%	2.0%	3.7%	3.7%		
	Male	Ν	4285	4411	1819	1925		
		% Use	3.0%	2.8%	5.8%	4.2%		
2	Female	Ν	3503	3549	1441	1532		
		% Use	2.7%	2.4%	5.1%	3.7%		
	Male	Ν	4515	4624	1754	1885		
		% Use	3.8%	3.1%	6.3%	4.2%		
3	Female	Ν	3542	3635	1351	1462		
		% Use	2.6%	1.9%	2.8%	3.3%		
	Male	N	4313	4408	1975	2194		
		% Use	3.4%	3.1%	3.0%	2.9%		
4	Female	N	3343	3443	1510	1768		

Table 17. New York Observed Hand-Held Use by Sex of Driver

B. Phone Manipulation in New York

Analyses explored the effect of the program on cell phone manipulation (e.g. texting, sending email messages, or manipulating navigation devices). In Syracuse, there were significant drops in observed phone manipulation in the first three waves (all $\chi^2 > 5.6$ all ps < 0.02), but not Wave 4 (See Figure 14). In Albany, there were significant drops in Wave 2 ($\chi^2 = 29.1$, p < 0.001) and Wave 4 ($\chi^2 = 19.5$, p < 0.001). Overall, Syracuse had a significant decrease in observed phone manipulations from the baseline of Wave 1 (2.8%) to the end of Wave 4 (1.9%)($\chi^2 = 14.2, p < 1$ 0.001), while Albany's overall decrease was not significant (6.3% to 5.7%, See Figure 14). There was a significant interaction between test and control areas over the course of the four waves (χ^2 = 4.5, p < 0.05) consistent with a bigger effect from the baseline to last observation in Syracuse than Albany.

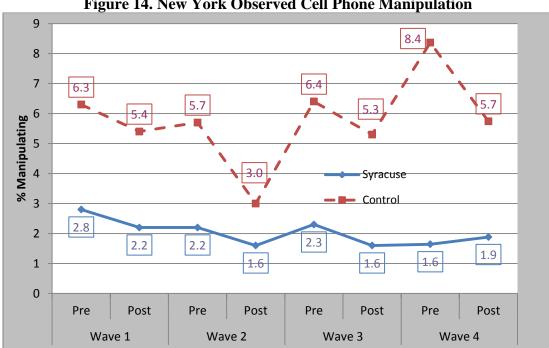
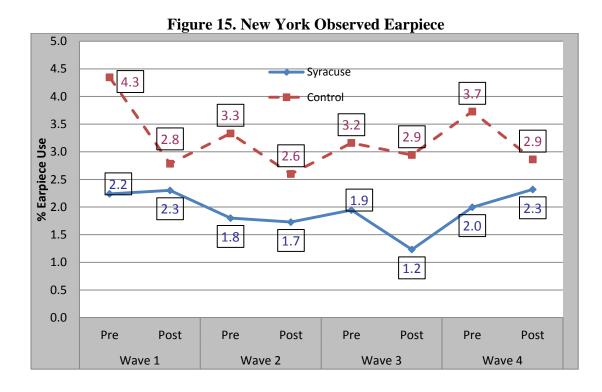


Figure 14. New York Observed Cell Phone Manipulation

C. Earpiece Use in New York

The decreases in observed hands-free earpiece usage were significant in Syracuse in Wave 3 only (p < 0.01) and in Albany for Waves 1 ($\chi^2 = 13.1 \ p < 0.001$) and 4 (p < 0.05). The overall baseline 1 (2.2%) to the end of Wave 4 (2.3%) change was not significant in Syracuse but was significant in Albany (4.3% to 2.9%; $\chi^2 = 11.6$, p <0.01). The interaction was also significant ($\chi^2 = 7.8$, p < 0.01) suggesting a bigger pre-Wave 1 to post-Wave 4 change in Albany than in Syracuse (See Figure 15).



V. DISCUSSION

According to several public awareness surveys, the driving public considers distracted driving to be an important issue and one that threatens their personal safety. For example, in its 2010 traffic safety culture index the AAA Foundation for Traffic Safety found that 87% of respondents said that talking on a cellular phone while driving is a *very serious* or *somewhat serious* threat to themselves and their families. In both Hartford and Syracuse, public awareness surveys collected at local DMVs indicated that about 60% of the respondents reported that they had some media exposure about distracted driving before the demonstration program began. Even with a relatively high starting point (or baseline level) of awareness, NHTSA's *Phone in One Hand, Ticket in the Other* slogan and advertisements were associated with an increase of approximately 20 percentage points in awareness of distracted driving media.

The high level of baseline public awareness is not surprising, given the level of recent media attention discussing the issue. Insurance companies, mobile phone providers, safety organizations, and advocacy groups have been addressing the dangers of using a cell phone and texting while driving, especially for teens. Many of these organizations sponsored advertisements on national television and developed their own Web Sites.

The Oprah Winfrey Show, for example, started the *No Phone Zone* campaign and on April 30, 2010, the Oprah show launched a "No Phone Zone Day" with a live TV broadcast and rallies in Atlanta, Boston, Detroit, Chicago, Los Angeles, and Washington, DC. Winfrey's efforts to bring attention to distracted driving also included a national public service announcement campaign. Also in April 2011, ABC's 20/20 featured distracted driving enforcement in Syracuse and videotaped road tests in Virginia to demonstrate how drivers do not recognize the degree to which texting and cell phone use degrades their driving performance. In recent years, the news media featured many cases of fatal crashes associated with texting and cellular phone use while driving.

The national attention has contributed to increases in overall awareness of distracted driving, which is a positive step in changing social norms about the unacceptability of using cell phones or texting while driving. Social norms are a key construct in the *Theory of Planned Behavior*, which reasons that behavioral decisions are made through a combined influence of behavioral beliefs, intentions, and norms (Azjen, 1991). The theory predicts that changing social norms would affect drivers' attitudes about cell phone use, which in turn would affect their intentions to use a cell phone while driving.

For the two HVE demonstration programs in Hartford and Syracuse this increased media attention introduced a confounding factor on the evaluation of the programs. Large proportions of drivers in all of the control sites reported hearing information about distracted driving that was not related to the NHTSA program. In addition, law enforcement agencies in the comparison sites enforced their States' cell phone laws strictly as was their practice. For example, one troop of the New York State Police actively wrote cell phone tickets in the area around Albany, which was the control site for Syracuse. They also released press notices warning the public of the increased enforcement of Operation Hang-Up at various times that sometimes coincided with NHTSA's programs in Syracuse. This periodic enforcement campaign ran near Wave 1, Wave 3, and during Wave 4. Public awareness surveys at the DMVs showed that there was relatively high awareness of "cell phone enforcement" in Albany but not for NHTSA's slogan Phone in One Hand, Ticket in the Other. This finding suggests that a separate ongoing campaign contributed to Albany's high awareness level. Also, the headquarters of the New York State Police are located in Albany and their campaigns are likely to generate more awareness in the State capital than other parts of the State. Similarly, in Connecticut, law enforcement in the comparison sites engaged in work zone enforcement programs, also writing cell phone tickets whenever they observed violators. Despite these enforcement and media activities in the comparison sites, the test sites in both States documented consistently greater changes in both awareness and observed cell phone usage. While these events may have diminished the evaluation of the Syracuse campaign, they are encouraging for the overall public attention they contributed to reduce distracted driving.

Hartford and Syracuse provide another example of how HVE campaigns can change drivers' behavior quickly in a variety of traffic safety areas. The goal of a HVE campaign is not to issue tickets, but to take advantage of motorists' desire to avoid citations, escalating fines for repeat offenders (as in Connecticut), or points on their drivers' license (as in New York). The model seeks to deter drivers from ever engaging in a particular behavior and is most effective when there are robust efforts in each component – laws, enforcement, publicity, and evaluation – of the model (NHTSA, 2011).

The campaign's slogan, *Phone in One Hand, Ticket in the Other*, was effective in conveying the message of increased cell phone enforcement to the public in both test sites. A significant proportion of drivers recognized the slogan, with over 50% of respondents in Hartford and 30% in Syracuse indicating that they recognized the message by the end of the program, significantly higher than in the control areas. These rates are comparable to the recognition earned by *Click It or Ticket* when it was first implemented. Along with increased recognition of the slogan, other measures indicated that drivers in the test sites reported having heard about the enforcement, recognized the increased strictness of the police, and thought that their chance of getting a ticket increased if they used a hand-held cell phone, all important elements of a successful HVE campaign.

The *Phone in One Hand, Ticket in the Other* demonstration program was associated with a significant decrease in the percentage of drivers observed using handheld phones. Before the distracted driving programs began, observed cell phone use in Syracuse was about half that of the rest of the Nation, and Hartford was close to the average observed average. Each State has long-standing hand-held cell phone bans—enacted in 2001 in New York and in 2005 in Connecticut. After the fourth wave of the HVE campaign, hand-held cell phone use decreased from 3.7% to 2.5% in Syracuse and from 6.8% to 3.9% in Hartford. The laws alone may have served to keep these States' rates at or below the national average, but the addition of HVE and media emphasizing the enforcement was clearly associated with the reduction in observed use.

Typically, periodic enforcement waves yield a fluctuation between waves where the observed behavior reverts close to previous levels, sometimes called a ratcheting effect (see Solomon et al.,1999). In the current project, this pattern occurred in some, but not all, waves for observed hand-held use or manipulating electronic devices in both sites. Generally, there was a steady decline in the comparison sites, as well. This is a promising finding and suggests that social norms towards phone use and texting while driving may be shifting, becoming less acceptable behaviors to the public.

The law enforcement agencies in both sites exceeded program expectations. Ticketing rates around 20 citations per 10,000 population have been shown effective in seat belt enforcement programs, a rate deemed sufficient to change motorists' behaviors (Nichols & Ledingham, 2008). Enforcement rates for the distracted driving demonstration programs in the two test sites 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. This coordination indicates strong leadership of law enforcement officials, which is another factor that increases the likelihood the HVE efforts will succeed (NHTSA, 2011). Finally, officers reported positive public reactions—the general theme for both officers and motorists was that "it was about time." The positive public reaction may have further reinforced officer efforts and contributed to heightened levels of enforcement.

Challenges to enforcing hand-held cell phone and texting bans include the difficulty in observing the offense. Syracuse law enforcement officers preferred roving patrols and elevated observation locations or taller vehicles like SUVs, useful in seeing down into a passenger vehicle, to observe texting offenses. Hartford officers used spotters, a stationary strategy when the officer who observes the violation radios ahead to another officer who makes the stop and write the citation. Each location's strategy suited their community and resources. Because this was a demonstration program, additional reporting paperwork was required to document activity and results. The Hartford officers indicated that the demonstration program's paper work was more time

consuming than a seat belt ticket, and they worked to improve the administrative demands from wave to wave.

These demonstration programs document that NHTSA's HVE model can be effectively applied to distracted driving enforcement and that various law enforcement strategies can be used to observe and ticket cell phone and texting violations. Targeted behaviors were reduced during the program and ended lower than the baseline in all sites, both intervention and comparison. Surveys data indicated widespread support from motorists and law enforcement for cell phone and texting enforcement. These demonstrations confirm earlier efforts with occupant protection, impaired driving, aggressive driving, and speed that HVE campaigns encourage compliance with State laws and modify behavior.

VI. **REFERENCES**

Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.

Braitman, K. A., & McCartt, A. T. (2010) *National reported patterns of driver cell phone use*. Arlington, VA: Insurance Institute for Highway Safety.

Caird, J. K., Willness, G. R., Steel, P., & Scialfa, C. (2008) A meta-analysis of the effects of cell phones on driver performance. *Accident Analysis & Prevention, 40*: 1282-93.

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.

Drews, F. A., Yazdani, H., Godfrey, C. N., Cooper, J. M., & Strayer, D. L. (2009). Text messaging during simulated driving. *Human Factors*, *51*: 762-70.

Farmer, C. M., Braitman, K. A., & Lunk, A. K. (2010). Cell phone use while driving and attributable risk. Arlington, VA: Insurance Institute for Highway Safety.

Governors Highway Safety Association. (2011). Distracted Driving: What Research Shows and What States Can Do. Washington, DC:.

Governors Highway Safety Association. (2012, March). Cell Phone and Texting Laws. Accessed at www.ghsa.org/html/stateinfo/laws/cellphone_laws.html

Foss, R. D., Goodwin, A. H., McCartt, A. T., & Hellinga, L. A. (2009). Short-term effects of a teenager driver cell phone restriction. *Accident Analysis & Prevention*, *41*: 419-24.

Hosking, S., Young, K., & Regan, M. (2006). *The effects of text messaging on young novice driver performance*. (Report 246). Monash, Australia: Monash University Accident Research Center. .

Insurance Institute for Highway Safety. (2008, April). Crash Avoidance Features, Status Report, April 17, 2008. Arlington, VA:.

Klauer, S. G., Dingus, T. A., Neale, V. L., Sudweeks, J. D., & Ramsey, D. J. (2006). *The impact of driver inattention on near-crash/crash risk: an analysis of the 100-car naturalistic driving*

study data. (Report no. DOT HS 810 594). Washington, DC: National Highway Traffic Safety Administration.

McCartt, A. T., Hellinga, L. A., & Braitman, K. A. (2006). Cell phones and driving: review of research. *Traffic Injury Prevention*, 7: 89-106.

McCartt, A. T., Hellinga, L. A., Strouse, L. M., Farmer, C. M. (2009). Long term effects of hand-held cell phone laws on hand-held cell phone use. *Traffic Injury Prevention*, 11: 133-41.

McEvoy, S. P., Stevenson, M. R., McCartt, A. T., Woodward, M., Haworth, C., Palamara, P., & 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.

National Highway Traffic Safety Administration. (2010). Distracted driving 2009. Traffic Safety Facts Research Note. (Report No. DOT HS 811-379). Washington, DC: Author. Available at www.distraction.gov/research/PDF-Files/Distracted-Driving-2009.pdf

National Highway Traffic Safety Administration. (2011, February). *Countermeasures that work: A highway safety countermeasure guide for State highway safety offices*. Sixth edition, 2011. (Report No. DOT HS 811 444). Washington, DC: National Highway Traffic Safety Administration.

Nichols, J. L., & Ledingham, K. A. (2008). The impact of legislation, enforcement, and sanctions on safety belt use. (National Cooperative Highway Research Program, NCHRP Report 601). Washington, DC: Transportation Research Board.

O'Brien, N. P., Goodwin, A. H., & Foss, R.D. (2010). Talking and texting among teenage drivers: a glass half empty of half full? *Traffic Injury Prevention*, *11*:549-554.

Olson, R. L., Hanowski, R. J., Hickman, J. S., & Bocanegra, J. (2009, September). Driver distraction in commercial vehicle operations. (Report No. FMCSA-RRR-09-242). Washington, DC: Federal Motor Carrier Safety Administration. Available at http://www.distraction.gov/research/PDF-Files/Driver-Distraction-Commercial-Vehicle-Operations.pdf.

Pickrell, T. M., & Ye, T. J. (2010, September). Driver electronic device use in 2009. Traffic Safety Facts Research Note. (Report No. DOT HS 811 372). Washington, DC: National Highway Traffic Safety Administration. Available at <u>www.distraction.gov/download/research-pdf/Driver-Electronic-Device-Use-2009.pdf</u>.

Pickrell, T. M., & Ye, T. J. (2011, December). Driver electronic device use in 2010 Traffic Safety Facts Research Note. (Report No. DOT HS 811 517). Washington, DC: National Highway Traffic Safety Administration. Available at <u>www.distraction.gov/download/research-pdf/8052_TSF_RN_DriverElectronicDeviceUse_1206111_v4_tag.pdf</u>.

Preusser, D. F., Williams, A. F., Nichols, J. L., Tison, J., & Chaudhary, N. K. (2008). *Effectiveness of behavioral highway safety countermeasures*.(NCHRP Report 622). Washington, DC: National Cooperative Highway Research Program.

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

Reed, N., & Robbins, R. (2008). *The effects of text messaging on driver behavior: a simulator study*. (Report PPR 367). Berkshire, United Kingdom: Transport Research Laboratory.

San Miguel, M. (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

Solomon, M. G., Nissen, W. J., and Preusser, D. F. (1999). *Occupant protection special traffic enforcement program evaluation*. (Report No. DOT HS 808 884). Washington, DC: National Highway Traffic Safety Administration.

Tison, J., & Williams, A. F. (2010, January). *Analyzing the first years of* Click It or Ticket *Mobilizations*. (Report No. DOT HS 811 232). Washington, DC: National Highway Traffic Safety Administration. Available at www.nhtsa.gov/staticfiles/nti/pdf/811232.pdf.

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.nhtsa.gov/PR/DOT-62-10.

Williams, A. F. (2011). Teenagers' licensing decisions and their views about licensing policies: a national survey. *Traffic Injury Prevention*, 12:312-319.

Williams, A. F., Braitman, K. A., & McCartt, A. T. (2011). Views of parents of teenagers about licensing policies: a national survey. *Traffic Injury Prevention*, 12:1-8.

Williams, A. F., & Wells, J. K. (2004). The role of enforcement programs in increasing seat belt use. *Journal of Safety Research*, *35*: 175-80.

Young, K., Regan, M., & Hammer, M. (2003). *Distracted driving: A review of the literature*. (MUARC Report No. 201). Clayton, Australia: Monash University Accident Research Centre.

VII. **APPENDIX A - EXAMPLE OBSERVATION FORM Distracted Driver #330 Cellular Phone Observation Data Form**

SITE ID NUMBER: _____

OBSERVER:

WEATHER CONDITION: 1 Clear / Sunny 4 Fog 2 Light Rain 5 Clear/Wet

3 Cloudy

CITY: LOCATION:

DATE: _____ - ____ - ____

(Street) (Cross Street or other landmark) DAY OF WEEK: _

START TIME: ______ (Observation period will last exactly 60 minutes)

	Roadway Type 1=primary 2=second	Vehicle Type C = Car T= Pick Up S = SUV V = Van	Age 1 = Under 25 2= 25-59 3= Over 60 4= Unsure	Sex M = Male F = Female U = Unsure	Handheld use	Bluetooth use	Manipulating		Roadway Type 1=primary 2=second	Type	Age 1 = Under 25 2 = 25-59 3 = Over 60 4 = Unsure	Sex M = Male F = Female U = Unsure	Handheld use	Bluetooth use	Manipulating
1								26							
2 3								27 28							
_															
4								29							
5								30							
6								31							
7								32							1
8								33							
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22								47							
22								47							
24 25								49 50							
20								50							

VIII. APPENDIX B - EXAMPLE AWARENESS SURVEY

OMB # 2127-0665

Expiration Date: February 28, 2013

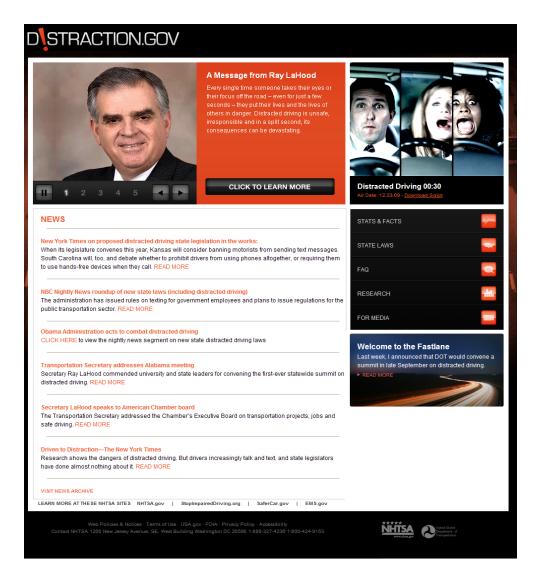
behaviors in Conn	ensing Offices in the State are participating in a study about distracted and unsafe driving pecticut. Your answers to the following questions are voluntary and anonymous. Please rey and then hand it in.
1. Your sex: []	Male [] Female
2. Your age: []	Under 18 [] 18-20 [] 21-34 [] 35-49 [] 50-59 [] 60 Plus
	American Indian or Alaska Native [] Asian [] Black or African American Native Hawaiian or other Pacific Islander [] White [] Other
4. Are you of Span	nish/Hispanic origin? [] Yes [] No
5. Your Zip Code:	
	y miles did you drive last year? Less than 5,000 [] 5,000 to 10,000 [] 10,001 to 15,000 [] More than 15,000
	hicle do you drive most often? Passenger car [] Pickup truck [] Sport utility vehicle [] Mini-van [] Full-van [] Other
-	ou talk on a hand-held cellular phone when you drive? Always [] Nearly always [] Sometimes [] Seldom [] Never
	ou send text messages or emails on a hand-held cellular phone when you drive? Always [] Nearly always [] Sometimes [] Seldom [] Never
•	hat it is important for police to enforce hand-held cellular phone laws? Yes [] No
	nink the chances are of getting a ticket if you use a hand-held cellular phone while driving? Always [] Nearly Always [] Sometimes [] Seldom [] Never
	he hand-held cellular phone law in Connecticut is enforced: Very strictly [] Somewhat strictly [] Not very strictly [] Rarely [] Not at all
•	received a ticket for using a hand-held cellular phone while driving? Yes [] No
use?	nth, have you seen or heard about police enforcement focused on hand-held cellular phone
	nth, have you received a ticket for using a hand-held cellular phone while driving? Yes [] No
	ntly read, seen or heard anything about distracted driving in Connecticut? Yes [] No
	ere did you see or hear about it? (Check all that apply): per [] Radio [] TV [] Billboards [] Brochure [] Online [] Police Enforcement [] Other
lf yes, what	at did it say?
	he name of any of these distracted driving programs in Connecticut? (check all that apply): Y UP [] PHONE IN ONE HAND. TICKET IN THE OTHER. [] JUST DRIVE

IX. APPENDIX C - EVALUATION AND PROGRAM SCHEDULE

	Wave 1		Wa	ve 2	Wave	e 3	Wave 4		
	<u>CT</u> <u>NY</u>		<u>CT</u>	<u>CT NY</u>		<u>NY</u>	<u>NY</u> <u>CT</u>		
Pre- Observations	Mar18-22	Mar 25-27	Jul 8-12	Jul 8-10	Sep 16-20	Sep 16-18	Mar 3-7	Mar 24-26	
Pre- Awareness	Mar23-27	Mar 15-19	Jul 6-10	Jul 5-9	Sep 14-18	Sep 13-17	Mar 9-12	Mar 27- Apr 1	
Media Flight	Apr 4-16	Apr 4-16	Jul 22-28	Jul 20-26	Sep 27-Oct 6	Sep 27- Oct 8	Mar 24-30	Apr 2-8	
Enforcement	Apr 10-16	Apr 8-17	Jul 24-30	Jul 22-31	Oct 2-8	Oct 7-16	March 26- Apr 1	Apr 7-16	
Post- Observations	Apr 15-19	Apr 15-17	Jul 29- Aug 2	Jul 29-31	Oct 7-11	Oct 14-16	Mar 31- Apr4	Apr 14-16	
Post- Awareness	Apr 15-20	Apr 19-22	Jul 29- Aug 3	Aug 2-6	Oct 7-9	Oct 18-22	Apr 3-9	Apr 18-22	

X. APPENDIX D - PROGRAM MATERIAL AND POSTERS

Distracted driving campaign material is available at www.distraction.gov/







XI. APPENDIX E - EARNED MEDIA EXAMPLES

ENFORCEMENT PLANNERS FOR HARTFORD AND SYRACUSE

Each site used customized fact sheets and news releases before and after each of the four enforcement waves to generate earned media news coverage of the enforcement events and report enforcement activity to the public.

These examples include composite (both Hartford and Syracuse) versions in English and Spanish for one of the waves.

English SAMPLE NEWS RELEASE FACT SHEET & TALKING POINTS SAMPLE POST-RELEASE

Spanish SAMPLE NEWS RELEASE FACT SHEET & TALKING POINTS SAMPLE POST-RELEASE

[HARTFORD, CT/ SYRACUSE, NY] DISTRACTED DRIVING DEMONSTRATIO PROJECT ENFORCEMENT PLANNER SAMPLE NEWS RELEASE



FOR IMMEDIATE RELEASE: [Date] CONTACT: [Name, Phone Number, E-mail address]

Note: Before filling in the names of the organization and organization spokesperson, you MUST contact them to obtain their permission to use their names in this press release. You must get their approval for the language of their quotations and any changes or additions they may require. Only after this is done can you send out the press release.

[Local Law Enforcement Organization]Continues Enforcement Crackdown to Stop Distracted Driving

[Hartford Syracuse] Not Giving Up on Increasing Driver Awareness and Saving Lives

[City, State] – [Hartford Syracuse] drivers beware, **[Local Law Enforcement Organization]** will again be out in force beginning July 24, to make sure drivers keep their eyes on the road and hands on the wheel as the city's campaign to stop distracted driving continues. Law enforcement officers will be sending the strong message that anyone caught texting or talking on a hand-held cell phone will be pulled over and ticketed.

"We know that summer is one of the most dangerous times of the year to be on the road and there are a lot of situations out of our control," said [Local Law Enforcement Official]. "But, just like wearing a seat belt or not drinking and driving, when it comes to distracted driving, drivers have a choice and we hope that everyone heeds this warning and pays attention to the road and not their phones."

This crackdown marks the second of many enforcement waves taking place over the next year. "The first crackdown held in April, coupled with the media campaign *PHONE IN ONE HAND*. *TICKET IN THE OTHER* was a huge success," [Local Law Enforcement Official] remarked. He/she said that more than 2,500 hand-held cell phone and texting citations were handed out, along with hundreds of other citations like, seat belt, child restraint and other violations.

"The sad reality is while we caught more than 2,500 violators of the law, there are still many drivers out there who still haven't gotten the message," said [Local Law Enforcement Official].

This may be because many drivers don't realize the true dangers of using a cell phone while driving, but according to a recent study from the Insurance Institute for Highway Safety, drivers who use hand-held devices are four times as likely to get into crashes serious enough to injure themselves, explained **[Local Official]. He/she** stated that in 2008 alone, nearly 6,000 people were killed and more than a half million people were injured in crashes involving a distracted driver nationwide.

--More--

"These numbers may seem like just statistics, but we know that even one life lost is too many," said **[Local Law Enforcement Official]**. "Too often we bring the tragic news to families about the death of a loved one that may have been prevented had someone not been distracted."

That's why **[Local Law Enforcement Organization]** is joining with the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) to continue one of the Nation's first crackdown campaigns aimed at stopping distracted drivers. Stepped-up law enforcement activities will be cracking down on distracted drivers throughout the last part of July.

"Everyone should put their phones down, but parents especially should be aware that young drivers are particularly at risk of distracted driving," said **[Local Official].** "Their lack of driving experience can contribute to critical misjudgments if they become distracted, yet they text more than any other age group."

So remember, if you are caught talking on a hand-held phone or texting, law enforcement WILL pull you over and you will be fined. No more excuses, no more exceptions, *PHONE IN ONE HAND*. *TICKET IN THE OTHER.,* said [Local Official].

For more information, please visit [insert website here]

###

HARTFORD, CT/ SYRACUSE, NY DISTRACTED DRIVING DEMO ENFORCEMENT PLANNER FACT SHEET & TALKING POINTS

What the Law Says: [INSERT SPECIFIC NEW YORK or CONNECTICUT LAW TALKING POINTS]

Talking Points:

- **[Your Law Enforcement Organization]** will be out in force, beginning July 24, making sure drivers keep their eyes on the road and hands on the wheel, as the city continues its official distracted driving campaign.
- This crackdown marks the second of many enforcement waves taking place over the next year. The first crackdown held in April, coupled with the media campaign *PHONE IN ONE HAND. TICKET IN THE OTHER.* was a huge success. More than 2,300 hand-held cell phone and texting citations were handed out, along with hundreds of other citations like, seat belt, child restraint and other violations.
- Law enforcement officers will be sending the strong message that anyone pulled over for a traffic violation, like talking on their hand-held phone, and caught texting will be fined.
- Summer is one of the most dangerous times of the year to be on the road and there are a lot of situations out of our control. But, just like wearing a seat belt or not drinking and driving, when it comes to distracted driving, drivers have a choice and we hope that everyone heeds this warning and pays attention to the road and not their phones.
- So remember, if you are pulled-over for disobeying traffic laws, like talking on your cell phone, law enforcement WILL be checking to make sure you are not talking on a hand-held cell phone or texting. No more excuses, no more exceptions, *PHONE IN ONE HAND*. *TICKET IN THE OTHER*.

Research on Distracted Driving Reveals Some Surprising Facts:

- In 2008, almost 20 percent of all crashes in the year involved some type of distraction. (U.S. Department of Transportation, National Highway Traffic Safety Administration NHTSA)
- Driving while using a cell phone reduces the amount of brain activity associated with driving by 37 percent. (Carnegie Mellon)
- Nearly 6,000 people died in 2008 in crashes involving a distracted driver, and more than half a million were injured. (NHTSA)
- The younger, inexperienced drivers under 20 years old have the highest proportion of distraction-related fatal crashes. (NHTSA)
- Drivers who use hand-held devices are four times as likely to get into crashes serious enough to injure themselves. (Insurance Institute for Highway Safety)

Other Distracted Driving Information You Need To Know:

There are three main types of distraction facing drivers:

- Visual taking your eyes off the road
- Manual taking your hands of the wheel
- Cognitive taking your mind off what you're doing

Distracted driving is any non-driving activity a person engages in that has the potential to distract him or her from the primary task of driving and therefore increase the risk of crashing.

While all distractions can endanger drivers' safety, texting is the most alarming because it involves all three types of distraction.

Other distracting activities include:

- Using a cell phone
- Eating and drinking
- Talking to passengers
- Grooming
- Reading, including maps
- Using a PDA or navigation system
- Watching a video
- Changing the radio station, CD, or MP3 player.

[HARTFORD, CT /SYRACUSE, NY] DISTRACTED DRIVING DEMONSTRATION PROJECT ENFORCEMENT PLANNER SAMPLE POST-RELEASE



FOR IMMEDIATE RELEASE: [Date] CONTACT: [Name, Phone Number, E-mail address]

Note: Before filling in the names of the organization and organization spokesperson, you MUST contact them to obtain their permission to use their names in this press release. You must get their approval for the language of their quotations and any changes or additions they may require. Only after this is done can you send out the press release.

[Local Law Enforcement Organization] Remains Committed to Stopping Distracted Driving

Drivers Sent A Strong Message: PHONE IN ONE HAND. TICKET IN THE OTHER

[City, State] – Even with the successes of the first distracted driving crackdown in April of this year, not everyone has heeded [Local Law Enforcement]'s strong warnings. So, in an effort to continue to combat this deadly trend, [Local Law Enforcement] was again out in force in July checking to make sure any one pulled over for disobeying traffic laws, like talking on their hand-held cell phone, were not texting as well.

"As we wrapped up our second enforcement wave of the distracted driving campaign, we are beginning to see our message getting through to Syracuse drivers," said **[Local Law Enforcement Official].** "We are committed to this campaign and drivers can expect to see us out time-and-timeagain. We are serious about stopping this deadly behavior."

Anyone who was observed talking on their hand-held cell phone was pulled over and fined. In addition, after they were stopped if they were also found to be texting another penalty was added, said **[Local Law Enforcement Official].** [INSERT SPECIFIC DETAILS OF SYRACUSE/HARTFORD DISTRACTED DRIVING PENALTIES]

Early reports show that XX distracted driving citations, XX child restraint citations and XX seatbelt citations were given during the week-long campaign, explained **[Local Law Enforcement Official].**

Unfortunately, people don't understand just how deadly driving while distracted can be, explained **[Local Law Enforcement Official].** According to a recent study from the Insurance Institute for Highway Safety, drivers who use hand-held devices are four times as likely to get into crashes serious enough to injure themselves.[INSERT LOCAL STAT]

--More--

We also want these crackdowns to be a strong warning to parents, because young drivers are especially at risk, explained **[Local Law Enforcement Official].** In fact, according to a U.S. Department of Transportation, National Highway Traffic Safety Administration (NHTSA) study, in 2008, drivers under the age of 20 had the highest proportion of distracted drivers involved in fatal crashes. "Parents should remind their children that there is more at stake than just a ticket or fine," said **[Local Law Enforcement Official].** "We are talking about a warning that could save their life!"

"To help save more lives on our roadways, we did our best to make sure that everyone understood that phone conversations can wait," **[he/she]** said. Remember, "PHONE IN ONE HAND. TICKET IN THE OTHER."

For more information, please visit [insert website here] ###

PROYECTO DE DEMOSTRACIÓN EN [HARTFORD, CT/ SYRACUSE, NY[EN CONTRA DE LOS CONDUCTORES QUE MANEJAN DISTRAÍDOS

PLANIFICADOR PARA EL CUMPLIMIENTO DE LA LEY EJEMPLO DE COMUNICADO DE PRENSA POSTERIOR AL OPERATIVO

PARA DISTRIBUCIÓN INMEDIATA: [Fecha]

CONTACTO: [Nombre, teléfono, dirección de correo electrónico]

Nota: Antes de completar los espacios en blanco con los nombres de la organización y del portavoz de la organización, usted DEBE comunicarse con ellos para obtener permiso de usar sus nombres en este comunicado de prensa y obtener su aprobación del lenguaje utilizado en las citas, así como incorporar algún cambio que ellos requieran. Los comunicados de prensa pueden ser enviados SÓLO si se ha cumplido plenamente con este requisito.

Exitosa primera campaña de [Nombre de autoridad local] en contra de los conductores que manejan distraídos Se envió un fuerte mensaje a los conductores: CELULAR EN MANO, MULTA EN MANO

[Ciudad, estado] – A medida que los conductores dependen cada vez más de sus teléfonos celulares, ellos ponen menos atención a la tarea de manejar. Es así como, en un esfuerzo por combatir la tendencia a conducir distraído, [Nombre de autoridad local] tuvo en abril una fuerte presencia en las calles y carreteras al detener a todos los conductores que estaban hablando por celular sostenido en la mano o enviaban mensajes de texto mientras conducían.

"Este no fue un esfuerzo de un día", dijo **[Oficial local].** "Los conductores de Hartford Syracuse pueden esperar vernos durante todo el año vigilando a los conductores distraídos. Estamos resueltos a detener este comportamiento de carácter mortal".

Detuvimos y multamos a todas las personas que veíamos hablando por celular sostenido en la mano o enviando mensajes de texto mientras conducían", expresó **[Oficial local].** [INCLUIR DETALLES ESPECÍFICOS SOBRE LAS PENALIDADES POR CONDUCIR DISTRAIDO EN HARTFORD] Reportes iniciales demuestran que durante la campaña que se llevó a cabo durante dos semanas, se entregaron XX citaciones por manejar distraído, XX citaciones por falta de cinturón de seguridad en los niños y XX citaciones por no utilizar el cinturón de seguridad para adultos, explicó **[Oficial local].**

Desafortunadamente, muchos conductores no se dan cuenta de los peligros que conlleva el conducir distraído", aclaró **[Oficial local].** Según la Administración Nacional para la Seguridad del Tráfico en las Carreteras (NHTSA), durante el 2008, murieron aproximadamente 6,000 personas, y más de medio millón sufrieron lesiones en choques automovilísticos que involucraban a un conductor distraído. **[INCLUIR ESTADISTICAS LOCALES]**

"Queremos que estas campañas sean una advertencia clara para los padres, ya que los jóvenes conductores son lo que corren mayor riesgo", explicó **[Oficial local].** De acuerdo a un estudio de NHTSA, en el año 2008, los conductores menores de 20 años tuvieron la tasa más alta de choques relacionados con el hecho de conducir distraído. "Los padres deben recordarle a sus hijos que las consecuencias pueden ser mucho más graves que una multa" dijo **[Oficial local].** "Nos estamos refiriendo a una advertencia que puede salvarles la vida".

"Con el fin de ayudar a salvar más vidas en nuestras carreteras, hicimos nuestro mejor esfuerzo para asegurarnos de que todos entiendan que las conversaciones telefónicas pueden esperar", dijo **[Oficial local]**. Recuerde, "**CELULAR EN MANO, MULTA EN MANO**".

Para obtener más información visite la página de Internet [insert website here].

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PLANIFICADOR PARA EL CUMPLIMIENTO DE LA LEY EJEMPLO DE COMUNICADO DE PRENSA POSTERIOR AL EVENTO

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CONTACTO: [Nombre, teléfono, dirección de correo electrónico]

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PROYECTO DE DEMOSTRACIÓN EN [HARTFORD, CT /SYRACUSE, NY] EN CONTRA DE LOS CONDUCTORES QUE MANEJAN DISTRAÍDOS

PLANIFICADOR PARA EL CUMPLIMIENTO DE LA LEY HOJA DE DATOS & PUNTOS DE DISCUSIÓN

La ley dice: [INCLUIR PUNTOS DE DISCUSIÓN ESPECÍFICOS DE LAS LEYES DE CONNECTICUT]

Puntos de discusión:

- Durante el primer operativo de la ciudad contra los conductores distraídos, [Nombre de la autoridad local] tendrá una fuerte presencia en las calles y carreteras a partir del 10 de abril asegurándose que los conductores mantengan los ojos en la vía y sus manos en el volante.
- Los oficiales encargados del cumplimiento de la ley estarán enviando un riguroso mensaje: cualquier conductor que atrapen enviando mensajes de texto o hablando por un celular sostenido en sus manos será detenido y multado.
- No hay conversación alguna que valga la pena tener ante el riesgo de recibir una multa o peor...perder una vida. Siempre que se retire la vista de la vía o las manos del volante eso significa conducir distraído. Simplemente no es un acto seguro.
- Esta vez la policía no entregará advertencias. Recuerde, si lo atrapan enviando mensajes de texto o hablando por un celular sostenido en sus manos será detenido y multado. No hay excusas ni excepciones. CELULAR EN MANO, MULTA EN MANO.

Los estudios acerca de conductores distraídos revelan hechos sorprendentes:

- En 2008, casi el 20 por ciento de todos los choques ocurridos durante el año involucraban algún tipo de distracción. (Fuente: Administración Nacional para la Seguridad del Tráfico en las Carreteras, NHTSA)
- Conducir mientras se utiliza el celular reduce la cantidad de actividad del cerebro en 37 por ciento (Fuente: Carnegie Mellon).
- Durante el 2008, aproximadamente 6,000 personas murieron en choques que involucraban a un conductor distraído, y más de medio millón sufrieron lesiones. (Fuente: Administración Nacional para la Seguridad del Tráfico en las Carreteras, NHTSA)
- Los jóvenes e inexpertos conductores menores de 20 años hacen parte de la tasa más alta de choques relacionados con el hecho de conducir distraído. (Fuente: Administración Nacional para la Seguridad del Tráfico en las Carreteras, NHTSA)

• Los conductores que mientras manejan utilizan aparatos que deben sostenerse en sus manos corren 4 veces más el riesgo de chocar con tal severidad que pueden sufrir lesiones. (Fuente: Administración Nacional para la Seguridad del Tráfico en las Carreteras, NHTSA)

Información adicional sobre los conductores distraídos que usted debe conocer:

Existen tres tipos principales de distracciones que enfrentan los conductores:

- Visual retirar los ojos de la carretera;
- Manual retirar las manos del volante;
- Cognitivo —no estar concentrado en lo que se hace.

Conducir distraído se refiere a cuando una persona realiza una actividad que no está relacionada con conducir y que tiene el potencial de distraerla de su tarea principal, que es conducir, lo cual aumenta el riesgo de chocar.

Aún cuando todas las distracciones pueden poner en peligro la seguridad de un conductor, enviar textos es la causa más alarmante ya que involucra las tres clases de distracción mencionadas.

Las siguientes son otras actividades que distraen:

- Uso del teléfono celular
- Comer y tomar
- Hablar con los pasajeros
- Acicalarse
- Leer, incluyendo observar mapas
- Utilizar una agenda digital personal (PDA) o un sistema de navegación (GPS)
- Ver videos

Cambiar la estación de radio, colocar un CD o reproductor de MP3.

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