Evaluation of the May 2005 Click It or Ticket Mobilization to Increase Seat Belt Use

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16. Abstract

Click It or Ticket (CIOT) is an intense, short-duration, seat belt publicity and enforcement program. The CIOT May 2005 Mobilization involved approximately $33 million of purchased media. Law enforcement agencies across the Nation reported issuing more than 727,000 seat belt use citations during the annual two-week enforcement period beginning on May 23rd. June 2005 observations, as compared with June 2004, indicated increased seat belt use among front-seat occupants of passenger vehicles in 35 of 47 States and Territories.

The national seat belt use rate continued its steady increase upward by increasing two percentage points reaching 82% in 2005 compared to 2004 as measured by NHTSA's National Occupant Protection Usage Survey .

A demonstration program in the National Highway Traffic Safety Administration's Great Lakes Region found that an additional week of enforcement and media in target rural locations preceding CIOT improved belt use more among rural populations; Demonstration programs in NHTSA's Southeast and South Central Regions attempted to improve belt use among occupants riding in pickup trucks, but these were not as successful. The highly publicized May 2005 Mobilization continued to increase the number of people who buckle up.

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Mark G. Solomon, Stephanie H. Gilbert, James L. Nichols, Robert H. B. Chaffe, Julie Tison and Neil K. Chaudhary

BACKGROUND

Selective Traffic Enforcement Programs (STEPs) are coordinated policing and enforcement blitzes designed to quickly change motorists' behaviors. Occupant protection STEPs can raise seat belt use rates more substantially and more quickly than any other currently available program as they create a perception among motorists that they will be ticketed if they do not buckle up.

Nearly every State uses Selective Traffic Enforcement Programs (STEP) to improve the seat belt use rate. Most States conduct at least one occupant protection STEP wave per year and most schedule that STEP wave to occur simultaneously with the National Mobilizations during the month of May. The National Mobilization in May is typically associated with substantial national and local belt use publicity.

The National Mobilization planned during the spring of 2005 and implemented May 2005, was the largest-ever nationwide enforcement and publicity program implemented to increase seat belt use. Similar to previous mobilizations, the May 2005 Mobilization included a two-week enforcement blitz, running from May 23 through the Memorial Day holiday ending on June 5.

The 2005 Mobilization included an unprecedented level of paid advertisements. Nearly $33 million in targeted State and national advertising was budgeted for placing television, and to a lesser extent, radio advertisements. Approximately $10 million was spent for a national media buy. A national advertisement specifically carried a message that States were serious about enforcing the seat belt law and told motorists repeatedly to *Click It or Ticket*. Individual States spent $23 million of grant funding on similar messages typically expressing the same tone of intolerance for non seat belt users.

National mobilizations are conducted by the National Highway Traffic Safety Administration (NHTSA) and the Air Bag & Seat Belt Safety Campaign of the National Safety Council, in conjunction with thousands of State and local law enforcement agencies. Because more than 30 States currently use the *Click It or Ticket* slogan, National mobilizations are often referred to as *Click It or Ticket* campaigns.

(Continued on additional pages)

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OBJECTIVE

The objective of this study was to describe and evaluate the National Highway Traffic Safety Administration's *Click It or Ticket* high visibility seat belt enforcement mobilization in May, 2005. Specifically, to describe seat belt enforcement activities and the use of paid and earned media that focused on seat belt enforcement, and ultimately, to measure change in the seat belt use rate. This report includes case study evaluations for three separate NHTSA Regions where demonstration programs to increase seat belt use occurred.

METHODS

The overall evaluation included the collection of program data, including dollars spent placing paid advertisements and enforcement activity, and the collection of results from State reported statewide observational surveys of seat belt use. Case studies also included the collection of program data and statewide observation data, plus the collection of awareness survey data.

RESULTS

Paid Media Activity

Two major types of media buys occurred for the May 2005 Mobilization. First, States used over $22.9 million in grant funding to purchase local television, radio, and print media advertisements. Second, the Federal Government released approximately $9.7 million for a national media buy carried out by the Tombras Group media firm. Media content carried an enforcement-centered message that was clear and to the point (i.e., if you are not wearing a seat belt you will receive a ticket). The national media spot reached 91% of the target audience (men age 18 to 34) an average of 9.9 times. The total number of Gross Ratings Points (GRPs) purchased was 1,353 and cost about 9¢ per resident. Television coverage dominated all other media types used. Radio was used to a lesser extent followed by newsprint, billboards, and other types of messaging.

Estimated Amount Spent on Paid Advertisements in 2005

	Estimated Dollars Spent on Paid Advertisements	Cents Per Resident
National Buy	**$9,710,000**	**3**
Television	$7,750,000	3
Radio	$1,960,000	<1
Total States Reporting*	**$22,912,000**	**6**
Television	$12,072,000	4
Radio	$4,614,000	>1
Newsprint	$211,000	<1
Billboard	$1,589,600	<1
Other/Unknown	$2,722,000	<1

*44 States/Territories reporting.

States in three NHTSA Regions took part in demonstration projects that were linked to the CIOT program. States in NHTSA's Southeast and South Central regions took part in the *Buckle Up in Your*

Truck campaign in which States focused television and radio advertisements on seat belt use, specifically when riding in or driving a pickup truck. States in NHTSA's Great Lakes Region took part in a rural belt use demonstration program in which paid advertisements targeted broad rural areas in each State. Demonstration project advertisements typically aired for one week, immediately preceding the May Mobilization's *Click It or Ticket* advertisement campaign.

Enforcement Activity

More than 7,760 law enforcement agencies reported on May Mobilization activities. Nearly every State Police Unit (i.e., headquarters and troops) across the country participated and reported on activities. What is known comes from law enforcement agencies (LEAs) that participated and reported on enforcement activities at the end of the campaign. Approximately 41% (n = 7,763) of local law enforcement agencies were said to have participated and reported on activities. The enforcement information reported in this paper relies solely on self-reporting by LEAs.

2005 Participating Law Enforcement Agencies

Number Reporting	Number of LEAs	Number of Participating LEAs	Number of Reporting LEAs	Percent Reporting
Total*	18,949	9,761	7,763	41%

* 48 States and DC and Puerto Rico

Law enforcement agencies reported 727,271 seat belt citations during the enforcement period. Differences in citation rates became obvious when primary and secondary law locations were looked at separately. States with standard, or "primary,"[1] seat belt use laws issued seat belt citations at over twice the rate compared to secondary law locations. Conversely, secondary law locations issued citations for speeding at nearly twice the rate than primary law locations.

2005 Law Enforcement Agency Actions*

Enforcement Action (States Reporting)		Number	Per Residents**
Seat Belt Citations	(49)*	727,271	25
Primary Law	(21)*	534,403	31
Secondary Law	(22)*	161,257	15
Unrestrained Child Citations		32,973	1
Speeding Citations	(42)	437,568	15
Primary Law	(16)	163,095	12
Secondary Law	(22)	234,317	24
DWI Arrests		25,937	1

* A number of States were not classified and counted as either "primary" or "secondary" due to the following: omission of pickup truck in law; no adult seat belt law; or change in law type during the mobilization.

** Per 10,000 Residents

[1] Primary belt use laws allow an officer to stop and cite a motorist for a belt use violation alone. Remaining States have "secondary" laws under which the officer must first stop and cite the motorist for some other violation before a belt ticket can be issued. One State, New Hampshire has no safety belt use law pertaining to adult belt use. In this paper, New Hampshire is grouped among the States with secondary laws.

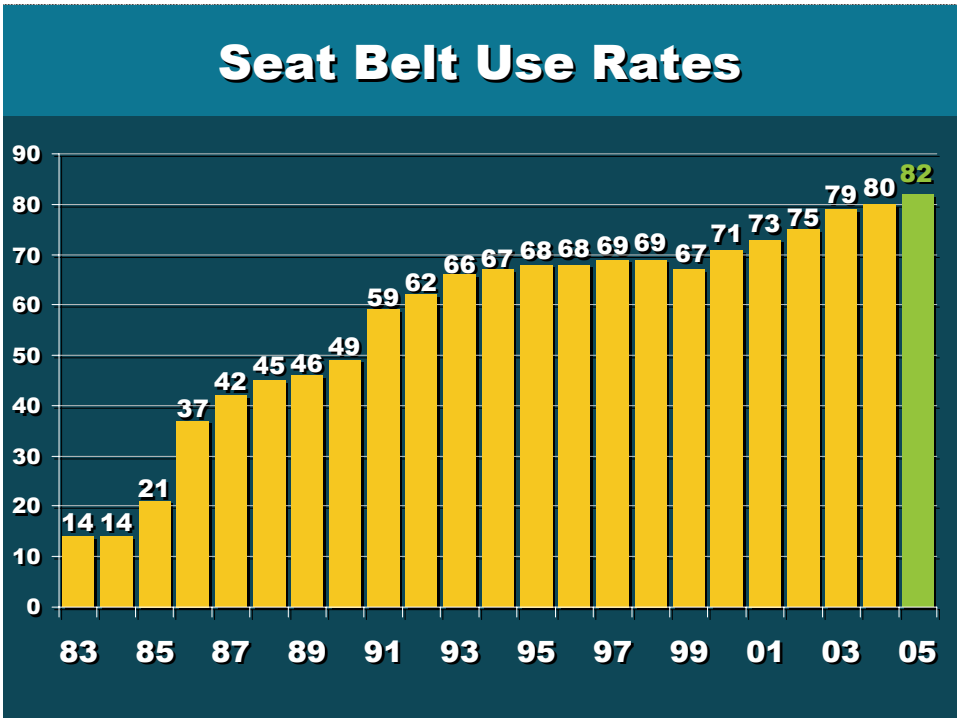
Pre/Post Changes in Seat Belt Use

The overall front-seat occupant seat belt use rate was measured just after the May Mobilization paid media and enforcement concluded. State post-rates were compared to previous statewide use rates reported for 2004. Among the 48 States, the District of Columbia and Puerto Rico, the number that increased in belt use far exceeded the number that decreased (35 versus 12). Rates changed anywhere from a 2.4 percentage point decrease to a 9.1 point increase. Among 22 primary law locations with a known belt use rate for 2004 and 2005, 18 showed an increase and 3 showed a decrease and 1 went unchanged. Among 25 secondary enforcement States, 17 showed an increase, 7 showed a decrease, and 1 remained unchanged.

Positive/Negative Change in Belt Use; 2004 – 2005

		Change		
2004 - 2005	Number	Positive	Negative	Unchanged
Total	47	35	10	2
Primary Law	22	18	3	1
Secondary Law	25	17	7	1

The next chart shows that the national seat belt use rate continued its steady increase upward by increasing two percentage points reaching 82% in 2005 compared to 2004 as measured by NHTSA's National Occupant Protection Usage Survey (NOPUS).

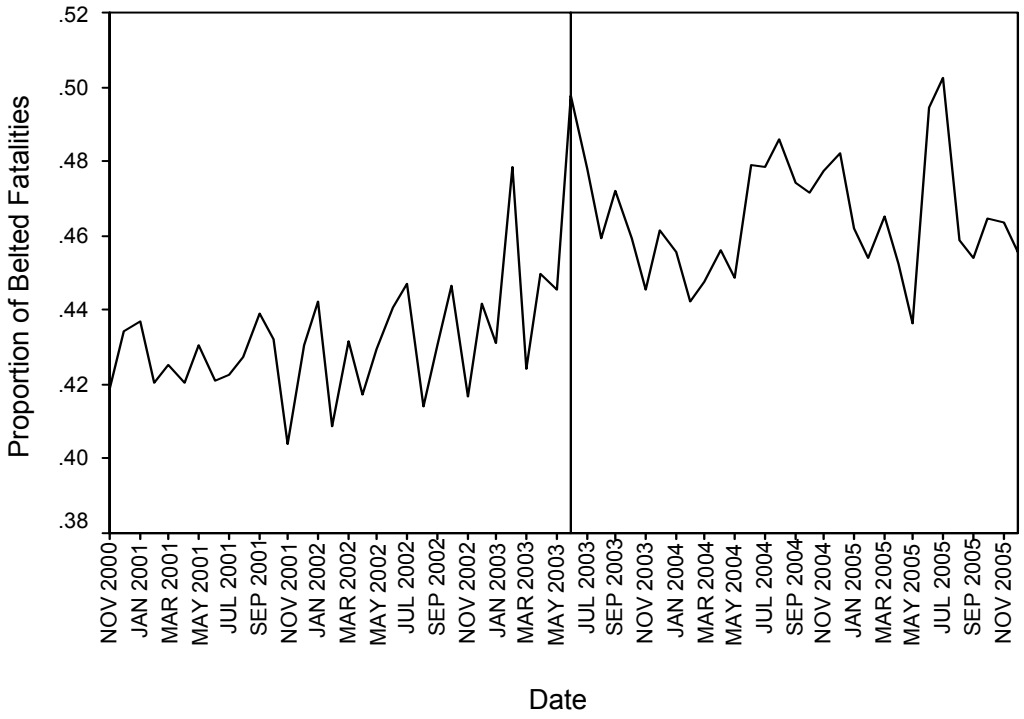


Source: NHTSA's National Center for Statistics and Analysis

Fatality Analysis Reporting System

NHTSA's Fatality Analysis Reporting System (FARS) is a census of all fatal crashes in the United States. The figure below shows the monthly proportion of belt use for fatalities from November 2000 to December 2005 for front seat outboard occupants 15 years and older. Seat belt use among fatally injured crash victims is consistently lower than observed belt use and has been steadily rising since 2000. ARIMA analyses estimates that there was a 3.5-percentage point monthly increase in the proportion of belted fatal occupants in the 31-month period following the 2003 Click It or Ticket campaign compared to what would have been expected from the trend of the preceding 31 months.

U.S. Proportion Belt Use for Fatalities, November 2000-December 2005



We would expect to find a seasonal fluctuation each June after the May CIOT program. However, the ARIMA model for this national analysis was (0,0,0) (0,0,0), which indicated no systematic fluctuation in the data series. A simple two sample T-test compared the proportion belted for 31 months prior to implementation to the 31 months following. The results showed a significant difference between the mean proportion of belted fatalities before CIOT (M = 43%) and the mean proportion of belted fatalities after CIOT (M =47%) (t (60) = -8.879, $p < 0.001$).

A second ARIMA analysis included both fatally injured and non-fatally injured persons. The ARIMA model (1,0,0) (0,0,0) indicated a significant increase in the proportion belted after the implementation of the nationwide CIOT Campaign compared to what would have been expected from the previous trends. The ARIMA estimates that there was a 3.7-percentage point monthly increase in belt use among fatally injured and non-fatally injured persons after the CIOT campaign compared to before the CIOT campaign.

A third ARIMA analysis compared the 2003 and 2004 CIOT interventions combined (24 months) to the 2005 CIOT (12 months). The results indicate that the 2005 CIOT had a small but significant impact on belt use ($p = .024$). Specifically, the 2005 CIOT was associated with a 0.8-percentage point increase in belt use above what would have occurred without the campaign.

Buckle Up in Your Truck - South Central Region

NHTSA's South Central Region (SCR) conducted a Buckle Up in Your Truck (BUIYT) demonstration program in both 2004 and 2005. The SCR Buckle Up in Your Truck program was evaluated using knowledge/attitude surveys. Driver Licensing Offices, an average of five per State, administered a one-page questionnaire to assess drivers' knowledge of Buckle Up in Your Truck, changes motorists may have made in their seat belt use behavior, how vigorously they felt their police agencies enforce the law and the likelihood police would stop them for a belt law violation.

Results indicated increases in awareness of seat belt messages and messages that mentioned using seat belts and pickup trucks. Exposure to messages concerning enforcement and actual exposure to enforcement measured higher over time. Chi-Square statistics were performed to test the significant level between the post-2004 and post-2005 survey waves separately for cars and trucks. Each question produced a significant chi-square statistic for cars but not for trucks.

Buckle Up in Your Truck – Southeast Region

All States in NHTSA's Southeast Region participated in their first BUIYT demonstration in 2005 by running advertisement for a one-week period immediately preceding the CIOT program. All advertisements showed a law enforcement officer. Some States used a warning message to unbuckled motorists while others used a strong Click It or Ticket enforcement message. The type of message used depended on what each State's laws allowed and what message State officials were comfortable delivering.

Results from the awareness survey found increases in awareness across the BUIYT and CIOT programs. Awareness of seat belt messages increased as did exposure to messages concerning enforcement and actual personal exposure to police enforcement.

Rural Demonstration Program - Great Lakes Region

All six States in NHTSA's Great Lakes Region participated in a rural demonstration program in 2005. In all six States, rural areas were targeted with TV and radio advertisement in the period immediately preceding CIOT. Three of the States (Illinois, Indiana, and Ohio) included one extra week of RDP enforcement.

In rural targeted areas, awareness of seat belt messages increased. Awareness of enforcement-related messages and activities increased most during CIOT.

Three of the six States increased enforcement in rural areas during the week prior to CIOT. The addition of enforcement to paid media during the RDP added to the impact of the overall mobilization in rural areas. Generally, usage did not increase unless enforcement was present and two waves of enforcement appeared to be more effective than one.

DISCUSSION

Approximately $33 million were spent on advertising enforcement-focused messages. Law enforcement across the nation issued over 727,000 seat belt tickets during a two-week enforcement phase.

This was an increase compared to what was reported in previous years. Belt use increased in 35 of 47 States and Territories.

A demonstration program implemented among National Highway Traffic Safety Administration's (NHTSA) Great Lakes Region States found that an additional week of enforcement and media in target rural locations improved belt use more among rural populations. Demonstration programs in NHTSA's Southeast and South Central Regions that attempted to improve belt use among occupants riding in pickup trucks were not as successful.

NHTSA should consider testing variations of the OP STEP model for differential effects due to targeting low belt use groups, duration of program elements and timing of program elements, but should keep mindful of the need to fully implement both enforcement and enforcement-centered media.

Finally, study results using FARS data found an increase in national belt use rates among fatalities of front-seat occupants of passenger vehicles after the CIOT campaign compared to before the CIOT campaign. Specifically, analyses of FARS data support the effectiveness of both South Central and RDP programs. A statistically significant effect was not found for South East. It is important to note that as with any non-experimental design, the findings do not rule out other influences on belt use. Certainly other factors may also be involved with the effects reported in this paper.

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I. INTRODUCTION

Seat belts can reduce death and serious injury of front-seat occupants in traffic crashes by nearly 50%. Yet of the 31,693 occupants of passenger vehicles killed in traffic crashes in 2004, an estimated 55% were not wearing seat belts according to the National Center for Statistics and Analysis. According to NHTSA, seat belts are the most effective safety device in vehicles and would save thousands more lives annually if everyone buckled up.

Selective Traffic Enforcement Programs (STEPs) are coordinated policing and enforcement blitzes designed to quickly change motorists' behaviors. Occupant protection STEPs can raise seat belt use rates more substantially and more quickly than any other currently available program as they create a perception among motorists that they will be ticketed if they do not buckle up.

Alerting the public that police will issue seat belt citations sends the important message that belt use is important enough that nonuse will not be tolerated. Intensive and direct publicity about enforcement is critical in increasing the perception of the risk of a ticket.

STEP programs typically span several weeks with the first and second weeks focused on publicity and the remaining weeks concentrated on publicity combined with intense and highly visible enforcement.

Canada was the first country in North America to demonstrate that highly publicized occupant protection enforcement increases compliance with occupant protection laws. In the mid-1970s, mandatory seat belt laws were passed in the Canadian provinces. Within months, the seat belt use rate surged to as high as 71%. However, shortly thereafter, the use rate declined. Years later, occupant protection STEPs used in several provinces led to sharp increases in seat belt use (Jonah et al., 1982; Williams et al., 2000). Continued use of STEPs contributed to Canada's achievement of an 87% use rate by the 1990s.

New York experienced a similar rise and fall in its seat belt use rate following passage of the first statewide seat belt law in the United States in 1984. In 1985, the community of Elmira in Chemung County, NY conducted a three-week publicity and enforcement program based on the Canadian STEP model. The Elmira STEP effort, the first in the United States, successfully reversed a falling seat belt use rate. The use rate improved from 49% to 77% in just three weeks time (Williams et al., 1987).

North Carolina enacted a seat belt law in 1986. Shortly thereafter, police officers began issuing tickets and seat belt use rose to 78%, higher than anywhere else in the country. By the middle of 1993, the rate had dropped to 65%. North Carolina decided to embark on a long-term program to increase its seat belt use rate in 1994. The program was named *Click It or Ticket* and it was the first statewide occupant protection STEP attempted in the United States

North Carolina began by using a STEP model resembling the Canadian and Elmira programs. High levels of seat belt and child restraint use were achieved using stepped up enforcement, increased publicity and widespread public information and education focusing on enforcement. By July 1994, STEPs in North Carolina had achieved an 81% driver seat belt use rate (Insurance Institute for Highway Safety, 1994).

Between 1995 and 1997, NHTSA funded statewide occupant protection STEPs in over two-dozen States under the auspices of the Campaign Safe and Sober program. These States conducted an average of four STEP waves for each year of funding. Most of these programs garnered widespread law enforcement support. But unlike CIOT in North Carolina, none of these programs extensively used paid media. Instead, these States relied heavily on earned media and public service announcements to get their message to the public. Furthermore, program publicity was not always focused on stepped up enforcement, but

rather on health and safety themes. All of these STEP States experienced measurable increases in belt use over time, though the wave-to-wave increases were usually small (Solomon et al., 1999).

In November 2000, South Carolina adopted the CIOT program. This STEP program included both an earned and paid media effort supported by a grant ($500,000) from the Air Bag & Seat Belt Safety Campaign. Both the paid and earned media efforts focused exclusively on occupant restraint enforcement. During a two-week enforcement period, the South Carolina Highway Patrol, in association with local law enforcement, conducted 3,303 checkpoints and wrote 19,815 belt use citations. By the end of the two-week enforcement period, 80% of motorists surveyed at DMV offices reported knowing of *Click It or Ticket*; 82% heard about checkpoints; and 40% had actually gone through a checkpoint. Observed front-seat occupant belt use increased by 14 percentage points, from 65% before enforcement to 79% during the second enforcement week (Solomon & Preusser, in process).

Shortly after South Carolina's successful CIOT campaign, a partnership among NHTSA Region IV officials, the Air Bag & Seat Belt Safety Campaign and State highway safety officials was formed to conduct a *Click It or Ticket* program across the southeast. All eight States in the region, Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina and Tennessee participated. The May 2001 program was structured so that all of the States simultaneously undertook a five-week earned media campaign, a two-week paid media campaign beginning one week after the start of earned media, and a two week intensive enforcement effort beginning one week after the start of paid media. Locally conducted, observations of belt use and surveys of awareness of the program before, during, and after the campaign were also carried out. Some 3,250 law enforcement agencies participated in the program, conducting over 25,000 checkpoints or patrols during the two-week enforcement period. Enforcement resulted in 119,805 seat belt citations, 9,495 child restraint citations, 8,478 DWI arrests, recovery of 254 stolen cars and apprehension of 1,471 fugitives. Results of surveys conducted in driver licensing offices throughout the eight States showed a dramatic increase in awareness of recent seat belt messages on television and radio, as well as in the print media. Observations of seat belt use showed statewide increases of between 4 and 20 percentage points across the States (Solomon, 2002).

Evaluation of the southeast region-wide program provided evidence that the full implementation of the *Click It or Ticket* model, specifically the use of paid media, can contribute to an improved belt use rate. The study States, though, were all within one geographical region. To evaluate more widespread application of the CIOT model and to measure its effectiveness, a wider geographical range of States would be needed.

The availability of Federal grants for seat belt enforcement under the Transportation Equity Act for the 21st Century (TEA-21) has made periodic seat belt enforcement STEPs commonplace in the United States. TEA-21 funds have only recently been directed toward funding paid advertisement campaigns, telling motorists to put on a seat belt or else be ticketed.

- Carry out a CIOT model program;
- Follow established timeline for activities;
- Saturate television and/or radio markets with enforcement focused paid advertisements;
- Vigorously enforce the seat belt law;
- Use *Click It or Ticket* or like slogan; and
- Conduct an evaluation model.

The results of the May 2002 CIOT program evaluation confirmed that intensive short term and well publicized enforcement can produce large gains in seat belt use. The results also suggested that enforcement with only modest paid media and intensive enforcement with no paid media has some effect on the belt use rate, but not to the same extent as full implementation of CIOT with paid advertisement placement.

Nearly every State currently uses occupant protection STEPs to improve the seat belt use rate. Most States conduct at least one STEP wave per year. Most schedule wave activities to occur simultaneously with the national mobilization. Mobilizations typically occur in May and are associated with substantial national and local belt use publicity. These mobilizations are conducted by NHTSA and the Air Bag & Seat Belt Safety Campaign of the National Safety Council in conjunction with thousands of State and local law enforcement agencies. Because a large number of States currently use the *Click It or Ticket* slogan (about two-thirds), national mobilizations are also referred to as *Click It or Ticket* campaigns.

The Federal Government released an unprecedented level of funding for the May 2004 Mobilization (approximately $30 million) for the purchase of paid advertisements. The Department of Transportation targeted $12 million for the purchase of national advertisement on television and radio broadcasts. Additionally, States targeted nearly $20 million of TEA-21 grant funding for advertisements during local programming. Both national and State advertisements were enforcement focused and largely targeted older teens and young adults with the message *Click It or Ticket*, or similar. The 2004 Mobilization resulted in a higher level of awareness to seat belt enforcement efforts and improved seat belt usage (Solomon & Chaffe, 2006).

The May 2005 Mobilization was implemented to further improve seat belt usage across the nation. Funding levels for the purchase of paid advertisements would be similar to the previous year's May effort (2004). Law enforcement agencies would be called on again to implement unprecedented levels of highly visible seat belt use enforcement supported with an intensive paid and earned media campaign.

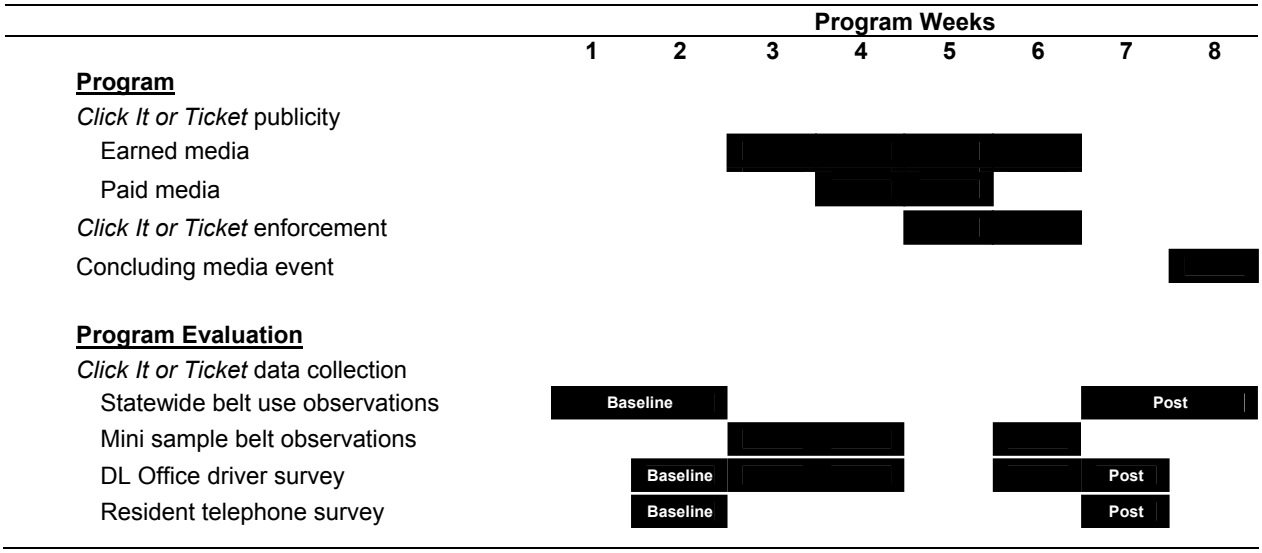
This report presents results from an evaluation of the May 2005 National Mobilization. In particular, this report summarizes activities and outcomes reported to NHTSA by individual States. States' information reported to NHTSA included both process and outcome information. Wherever possible, the information reported to NHTSA was verified by individual States to help ensure that the results presented in this document were as up to date as possible.

II. STEP MODEL DESCRIPTION

STEP Model and Timeline

A *Click It or Ticket* program is an occupant protection STEP. The enforcement is fully supported with intensive paid publicity that focuses primarily on enforcement of occupant restraint laws. The program model includes (1) data collection, before, during and immediately after media and enforcement phases; (2) earned and paid publicity announcing strict enforcement; (3) highly visible enforcement each day of the two-week enforcement period; and (4) a media event announcing program results and thanking all the participants in the community (Figure 1).

Figure 1. Program and Evaluation Model for *Click It or Ticket*



Mobilization Publicity

The CIOT model includes both earned and paid media. Seat belt enforcement messages are repeated during the publicity period. Messages specifically stay focused on enforcement continuing to remind motorists to buckle up or receive a ticket, in other words, *Click It or Ticket*.

Earned Media

Earned media is coverage by broadcast and published news services. Earned media generally begins one-week before paid media, two weeks before enforcement, and continues throughout other phases of the program. An earned media event, like a press conference and press release, is typically used to announce the ensuing enforcement program. Additional events continue to bring news coverage to the ongoing enforcement effort. Press releases are used throughout the mobilization to update the public on the latest program details and report program successes.

Paid Media

CIOT paid advertisement campaigns usually last two weeks. During this period, radio and television advertisements air extensively. Paid advertisements are strategically placed at times and places intended to maximize exposure to selected audiences. Typically, both radio and television advertisements

are timed to air at pre-selected times that maximize exposure. Paying for advertisement placement is necessary to reach the specific target groups with sufficient frequency within a short time frame to ensure message retention. Television and radio advertisements run on programs when the most people in the target audience are watching and listening.

Mobilization Enforcement

CIOT enforcement campaigns usually last two-weeks. During this period, zero-tolerance enforcement focusing on seat belt violations is carried out statewide. Ideally, traffic enforcement stays focused on seat belt violations above all other traffic violations. Making seat belt use the principal focus for enforcement may be easier in locations with seat belt laws allowing for standard enforcement compared to locations with secondary laws (where a driver must be stopped for some other violation before a citation for non-use can be issued). But focusing on seat belts is possible in both legal environments. Various enforcement techniques used during the period of enforcement may include, checkpoints, saturation patrols and routine patrols. Checkpoints are ideal because of their high visibility. Whatever enforcement tactics are used, keeping traffic enforcement visibly present for the entire enforcement period is a central component of CIOT.

Concluding Media Event

Weeks after ending CIOT publicity and enforcement, a concluding media event is used to publicize results. Program results and recognition of contributions from the community are supplied to the media for public exposure.

Evaluation Description

CIOT programs are evaluated in a number of ways. Observed seat belt use and motorists' attitudes and knowledge of police activity are tracked. Data are collected week-by-week; before, during and at the height of the enforcement effort and just after the conclusion of special enforcement and media activities. Evaluation methods are explained in more detail in the next chapter.

The 2005 National May Mobilization

During spring 2005, all 50 States throughout the United States, the District of Columbia, Puerto Rico and the U.S. Virgin Islands organized occupant protection (OP) STEP programs for the May 2005 National CIOT Mobilization.

Leadership was crucial to planning and implementing necessary elements to ensure successful campaigns. Although campaign publicity and enforcement lasted over a four-week period, organizing the campaign took months. During that time, official and enforcement support had to be garnered and a publicity and enforcement plan needed structuring, along with an evaluation plan.

Implementation of campaign publicity and enforcement lasted four weeks, in most States. During that period, States typically followed a similar schedule for conducting the enforcement and publicity campaign. In theory, operating jointly in a national campaign conveyed a unified enforcement presence and strengthened the message.

III. EVALUATION METHODS

All States committed resources to evaluate their individual effort. National coordination facilitated shared data collection procedures among evaluators in every State across the nation. Preusser Research Group helped to coordinate evaluation processes and assisted the States on an as needed basis.

Collection of Program Process Data

Two types of process data were examined for trends over time. The two types are paid publicity and enforcement. Paid advertising and enforcement activity levels were compared for the period, 2003 through 2005.

Paid advertising data were collected directly from NHTSA's national media contractor, the Tombras Group. These data indicated dollar amounts spent for placing nationwide advertisements on television, radio, and other media. State Highway Safety Offices are requested to submit mobilization report forms to NHTSA Regional Offices following every mobilization (see example in Appendix A). Data included on these forms indicated amount spent by individual States on television and radio advertisement placement.

Mobilization report forms also included number of law enforcement agencies participating and number of enforcement actions reported during the mobilization period. The evaluation used these data to explain the level of enforcement effort. Comparisons were made between primary and secondary law States/Territories and comparisons were made with previous mobilization enforcement data to understand trends in mobilization enforcement efforts.

Observational Surveys of Belt Use

Nearly every State conducted and reported on statewide surveys of belt use following the period of stepped up enforcement. Most of the surveys were completed in June 2005. These surveys generally followed NHTSA guidelines for conducting statewide surveys. NHTSA guidelines require that:

- States have a probability-based survey design;
- data be collected from direct observation of seat belt use;
- the relative error of the seat belt use estimate not exceed 5%;
- counties or other primary sampling units totaling at least 85% of the State's population be eligible for inclusion in the sample;
- all daylight hours for all days of week be eligible for inclusion in the sample.

NHTSA guidelines also require that the determination of a seat belt use rate be based on all types of passenger motor vehicles including passenger cars, pickup trucks, vans, minivans, and sport utility vehicles and that surveys include observation of both drivers and front-seat outboard passengers and both in-state and out-of-state vehicles.

Results from observational surveys were compared for primary/secondary law differences. Observational surveys of statewide seat belt use from the previous year were compared with statewide rates reported for June 2003 and June 2004.

Awareness Surveys

Surveys were collected from motorists visiting Driver Licensing Offices in a number of States participating in NHTSA Region Demonstration Projects.

All States used a one-page questionnaire to assess public knowledge and awareness, changes motorists may have made in their seat belt use behaviors, how vigorously they felt their police agencies enforce the law and the likelihood police would stop them. The survey form used in each State, by and large, was the same with only minor modifications to names of States, type of law, names of law enforcement agencies and campaign slogans (see sample questionnaires in Appendix B). The questionnaire remained unaltered between each survey interval in order to measure change as demonstration programs progressed.

Five States in NHTSA's South Central Region participated in a demonstration project designed to improve belt usage among occupants in pickup trucks. The effort was titled, *Buckle Up in Your Truck* (BUIYT). Each State completed their second year BUIYT activities just prior to the regular CIOT mobilization effort. All five States in this region collected survey information from motorists conducting business in select Driver Licensing Offices. Typically 5 to 6 Driver Licensing Offices per State were used for survey collection and approximately 150 to 200 surveys were collected per office, per wave. Four survey collection waves were completed. The first three waves were completed before during and just after the first implementation wave in May 2004. The fourth survey collection wave was completed just after the May 2005 wave ended.

Five of eight States located in NHTSA's Southeastern Region also collected surveys from motorists in select Driver Licensing Offices. These States were conducting an initial *Buckle Up in Your Truck* program effort during the month of May 2005. These States collected surveys before (April 2005), during and then immediately after the program implementation period (May 2005). Typically 5 to 6 licensing offices per State were used for survey collection and approximately 200 surveys per office, per wave were collected.

Pre/Post Telephone Survey

Random dial telephone surveys were conducted in NHTSA's Great Lakes Region, before announcing the rural demonstration program to the public (April 2005), during the latter half of the rural demonstration program (May 2005), and immediately after the May Mobilization ended (June 2005). The telephone survey was a NHTSA developed instrument, designed to measure drivers' knowledge and awareness related to seat belts, laws governing their use, and exposure to seat belt enforcement programs. The survey instrument did not change between survey waves (see questionnaire in Appendix C).

Fatality Analysis Reporting System

FARS data were used to test the impact of the CIOT Campaign at the national level. Tests of significance were performed to assess the campaign's effectiveness through the incidence of seat belt use in FARS. In addition, these data were used to further examine fatalities in targeted counties in the three months surrounding the NHTSA regional demonstration projects in May, June, and July 2003-2005.

IV. RESULTS

Paid Media Activity Description

Approximately $33 million was directed toward enforcement-centered advertisements for the May 2005 Mobilization. NHTSA spent approximately $9.7 million to purchase placement for a national advertisement spot. That amount equals approximately 3¢ per resident. The total gross rating points (GRPs), or ratings over time for NHTSA's national ad was 1353 GRPs. Over the course of the paid media campaign, the National media spot reached 91% of the target audience (men 18-34) an average of 9.9 times. States and Territories reported spending nearly $23 million on targeted placement of paid advertisements; approximately 9¢ per resident. States used most of that amount buying placement for television advertisements, about 5¢ per resident (these amounts are based on State-reported information). Typically States spent less on radio advertisements, about half the amount spent on television. States generally spent far fewer dollars buying advertisement space in newspapers and on billboards.

Table 1. Estimated Amount Spent on Paid Advertisements for Click It or Ticket 2005; National and States

	Estimated Dollars	Cents Per Resident
National Buy	**$9,710,000**	**3**
Television	$7,750,000	3
Radio	$1,960,000	<1
Total States Reporting*	**$22,912,000**	**6**
Television	$12,072,000	4
Radio	$4,614,000	>1
Newsprint	$211,000	<1
Billboard	$1,589,600	<1
Other/Unknown	$2,722,000	<1

*44 States/Territories reporting

Value-added (bonus) exposure on television and radio was reported in regard to the national television and radio buys. The value-added exposure did not necessarily reach the target audiences or air at the highest viewing times. Nonetheless, it was an added benefit. Based on NHTSA's national budget of $9.7 million, the media buy received an estimated 51% in value added exposure ($4.9 million) for the advertisement campaign.

Level of media funding in 2005 was similar to the 2004 May Mobilization and both were greater compared to the mobilization prior to that.

Table 2. Amount Spent on Paid Advertisements for *Click It or Ticket* 2003 – 2005; National and States

	2003	2004	2005
Number of States Reporting	45	48	44
Approximate Dollars Spent on Advertisements (National + State)	$25M	$32M	$33M

Earned Media Activity Description

Earned media typically started two weeks before the enforcement effort, usually with a flurry of kick-off press events, featuring newsworthy personalities at all levels of government and law enforcement, as well as spokespeople for health and highway safety advocacy groups. Press releases were distributed to local print news before, sometimes during, and after to raise awareness of the campaign. Additional actions continued to bring news coverage to the ongoing enforcement effort. Earned media efforts were sustained throughout the campaign. The intent was that these events would put the motoring public on notice that law enforcement would be cracking down on seat belt violations. The earned media activity reported here comes from Law Enforcement Agencies (LEAs) and State Highway Safety Offices that participated and reported on earned media activities at the end of the campaign. In regard to earned media activity reported to NHTSA, 358 press conferences, 3,873 television news stories, 12,556 radio news stories and 4,965 print news stories were reported. These counts of activities a likely to underreport what actually occurred.

Seat Belt Enforcement Activity

The enforcement activities reported here comes from LEAs that participated and reported on enforcement activities at the end of the campaign. The enforcement information reported in this paper relies solely on self reporting by LEAs collected and forwarded by State Highway Safety Offices. Table 3 presents the total number of law enforcement agencies (LEAs) across 48 States, DC, and Puerto Rico that reported mobilization enforcement. Among the 18,949 LEAs, 9,761 were reported as participants by Highway Safety Offices. Overall, 41% (7,763) of the18,949 LEAs reported on mobilization activities, nearly the same as the previous year, when 42% reported on activities.

Observable differences existed among the proportion of law enforcement agency types. State Police were far more likely to participate and report on mobilization activities. At least half of the municipal and county agencies reported their participation but less than half actually reported on mobilization activities (40% and 42% respectively). Other types of law enforcement agencies (university, college and military police) were more likely to participate than municipal and county agencies but less likely (37%) to report out on activities.

Table 3. Participating and Reporting Law Enforcement Agencies; *Click It or Ticket* 2005

National Total of LEAs	LEAs Participating In CIOT	LEAs Reporting CIOT Activity	Percent of Total LEAs Reporting
18,949*	9,761*	7,763*	41%

* 48 States, DC, and Puerto Rico

Table 4 shows the number of seat belt citations issued during the mobilization. Enforcement results were dependent not only on level of ticket writing, but also on the number of agencies reporting and completeness in reporting. Several States provided information indicating that far fewer than the total number of participating agencies actually reported and, as such, what is presented in Table 3 understates total enforcement activities.

Forty-eight States, DC, and Puerto Rico reported that 727,271 tickets were issued for non-compliance with seat belt laws. States with standard, or "primary,"[2] seat belt use laws continued to issue the majority of seat belt tickets, as in years past. Primary law locations also issued tickets at more than twice the rate as States with secondary laws (31 versus 15 per 10,000 residents). Secondary enforcement States were largely responsible for large numbers of speeding citations, typically the most common primary violation cited along with the secondary seat belt citation. Primary law locations typically issued belt tickets at nearly twice the rate compared to speeding tickets. The reverse was true in secondary law locations, where speeding tickets were issued at a far greater rate than belt tickets. Primary law locations issued seat belt citations at more than twice the rate compared to secondary law locations. Conversely, secondary law locations issued citations for speeding at nearly twice the rate than primary law locations. Over a 100,000 other citation types were reported including nearly 33,000 for unrestrained children, and approximately 26,000 DUI arrests.

Table 4. Number of Law Enforcement Agency Actions for *Click It or Ticket* 2005*

Enforcement Action	Number	Per Resident**
Seat Belt Citations (49)*	727,271	25
Primary Law (21)*	534,403	31
Secondary Law (22)*	161,257	15
Unrestrained Child Citations	32,973	1
Speeding Citations (42)	437,568	15
Primary Law (16)	163,095	12
Secondary Law (22)	234,317	24
DWI Arrests	25,937	1

* A number of States were not classified and counted as either "primary" or "secondary" due to the following: omission of pickup truck in law; no adult seat belt law; or change in law type during the mobilization.
** Per 10,000 residents

Tickets issued for seat belt violations increased over time. Seat belt tickets increased to their highest number issued and highest rate in 2005, even though the total number of reporting States/Territories decreased from 2004 to 2005. Participating law enforcement agencies reported over 727,000 tickets for non-compliance with seat belt laws during the May 2005 Mobilization. This number is an underestimation of total enforcement activity given that all participating agencies did not submit activity reports.

Table 5. Seat Belt Citations Issued During *Click It or Ticket*; 2003 – 2005

	2003	2004	2005
Number Reporting	44	53	49
Number of Seat Belt Tickets Issued	508,492	657,305	727,271
Tickets Issued per 10k Residents	20	24	25

[2] Primary belt use laws allow an officer to stop and cite a motorist for a belt use violation alone. Remaining states have "secondary" laws under which the officer must first stop and cite the motorist for some other violation before a belt ticket can be issued. One state, New Hampshire has no safety belt use law pertaining to adult belt use. In this paper, New Hampshire is grouped among the states with secondary laws.

Observational Surveys of Belt Use

Forty-eight States, DC, and Puerto Rico reported observed statewide seat belt usage rates for 2005. Statewide surveys typically took place in June, beginning immediately after mobilization enforcement and publicity concluded. A majority of statewide surveys were completed within one month's time.

Statewide belt use rates measured in 2005 ranged from a low of 61% to a high of 95%. The median use rate equaled 82%. Differences were observed comparing primary enforcement law locations with secondary enforcement locations. Seat belt use rates were typically lower in secondary locations compared to primary locations. The 2005 median use rate for secondary law locations was nine percentage points lower compared to primary law locations (77% versus 86%). Statewide belt use rates in secondary law States ranged more widely compared to primary law locations. Statewide use rates in secondary law locations ranged from a low of 61% to as a high of 95%. Use rates in primary law locations ranged from 74% to as high as 95%.

Table 6. Range of 2005 Statewide Seat Belt Use Rates by Type of Seat Belt Law

	Statewide Use Rate		
	Low	High	Median
Total States (50 States/Territories)	61	95	82
Primary Enforcement (23)	74	95	86
Secondary Enforcement (27)	61	95	77

* New Hampshire does not have an adult seat belt law

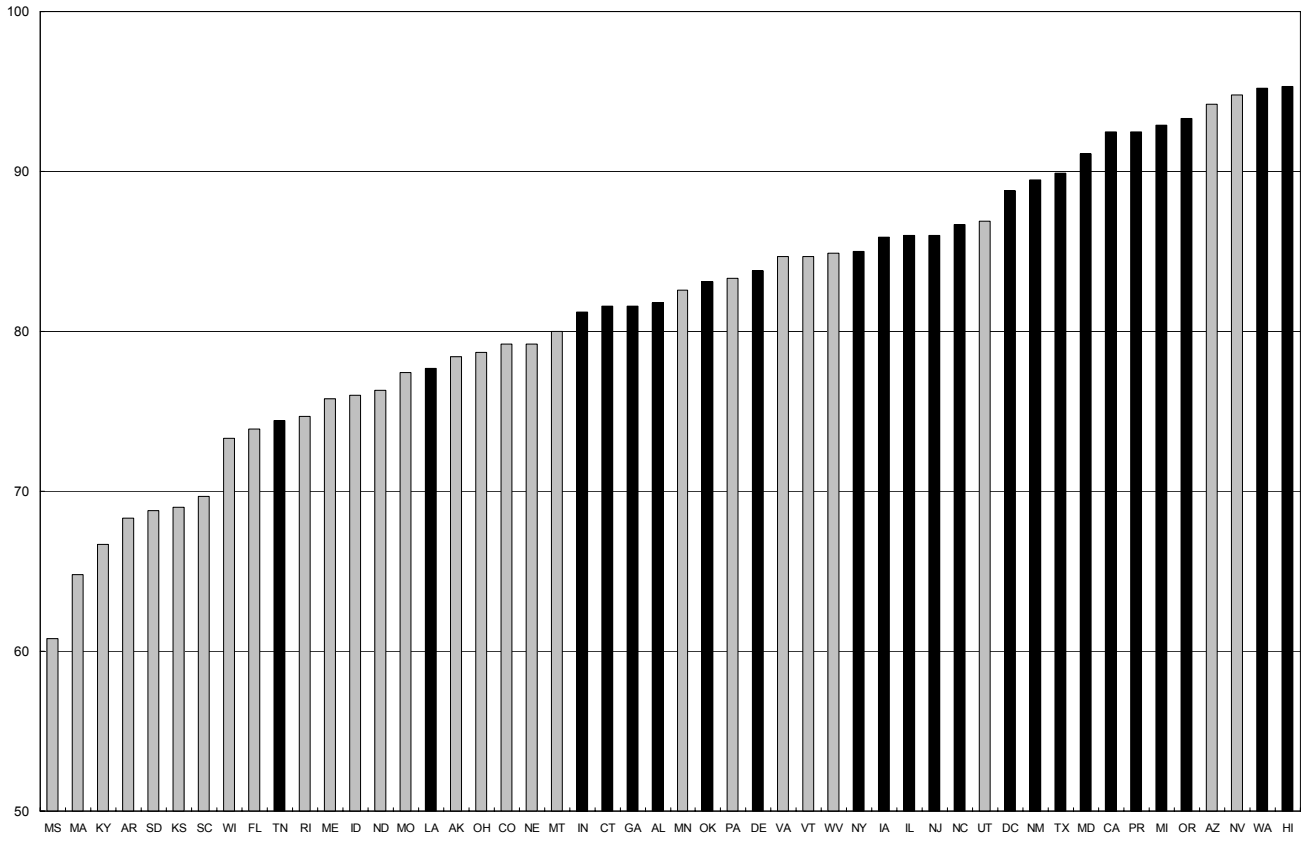
Another distinction is that statewide use rates in primary law locations clustered higher in regard to percentile range. Only 2 of 23 States/Territories with primary enforcement laws posted statewide use rates below 80% while two-thirds (18 of 27) of the States with secondary laws posted below 80%.

Table 7. 2005 Statewide Seat Belt Use Rates by Type of Seat Belt Law

	Primary Enforcement (21 States + DC and PR)	Secondary Enforcement (27 States)
90 Percentile	7	2
80 Percentile	14	7
70 Percentile	2	11
60 Percentile	0	6

Figure 2 illustrates the distribution of use rates across the States and the difference between primary and secondary law locations. Secondary law locations (gray bars) are clearly clustered more to the left hand side in the graph, typically in a lower percentile range. Primary law locations (black bars) are the reverse, to the right hand side of the graph and typically in a higher percentile range. See Appendix E for a more detailed summary of individual statewide use rates and law type for years 2004 and 2005.

Figure 2. 2005 State Seat Belt Use Rates



`*Tennessee's primary belt law went into effect on July 1, 2004.

Statewide use rates typically measured after the May 2005 Mobilization were compared to previous years' use rates. Rates typically, but not always, are measured just after mobilization activities conclude. Table 8 indicates that overall belt use rates improved in 2005 in a majority of States (35 of 47); some States did not show improvement (12). Level of improvement was slightly higher among primary law States compared to secondary law States (+2.0 versus +1.2, median point change).

Improvement did not appear to be dependent on law type given that improvements were shown among primary and secondary law States. The proportion of States showing improvement remained similar among States regardless of law type in 2003 and 2004. However, in 2005 a smaller proportion among secondary law States compared to primary law States improved in 2005. Observational survey results also indicated that the median point change among secondary law locations has decreased over time, from +3.7 in 2003, to +2.2 in 2004, to +1.2 in 2005. A similar pattern was not observed among primary law locations.

Table 8. Positive/Negative Change in Seat Belt Use; 2003 – 2005

		Change				
2004 - 2005	Number	Positive	Negative	Unchanged	Median	Point Range
Total	47	35	10	2	+1.5	-2.4 to +9.1
Primary Law	22	18	3	1	+2.0	-1.3 to +6.7
Secondary Law	25	17	7	1	+1.2	-2.4 to +9.1

		Change				
2003 - 2004	Number	Positive	Negative	Unchanged	Median	Point Range
Total	48	39	9	0	+2.2	-1.1 to +9.1
Primary Law	20	16	4	0	+2.2	-1.1 to +5.7
Secondary Law	28	23	5	0	+2.2	-7.1 to +9.1

		Change				
2002 - 2003	Number	Positive	Negative	Unchanged	Median	Point Range
Total	48	40	6	2	+2.8	-3.4 to +13.1
Primary Law	20	16	3	1	+1.8	-3.4 to +6.6
Secondary Law	28	24	3	1	+3.7	-2.5 to +13.1

Theoretically it is harder for primary law locations to increase their belt use rate compared to secondary law locations, given the fact that primary enforcement States, on average, have higher use rates than do secondary States. For example, increasing belt usage 5 percentage points from 85 to 90% is more difficult than going from 60 to 65%. One measure of seat belt usage rate change that seeks to account for this is the measure of conversion rates. A conversion rate looks at the percentage of non-users who were "converted" to users. Conversion rates ranged widely from -38% to 61%. The majority of States measured belt use moving in a positive direction with a mean conversion rate of 10%. In other words, 10% of non-users were converted, at least for some amount of time, to belt users. Primary enforcement States improved belt use by 10%, based on average; secondary enforcement States converted 9% (based on averages).

National FARS Analyses for November 2000 through December 2005

NHTSA's Fatality Analysis Reporting System (FARS) is a census of all fatal crashes in the United States. Figure 3 shows the monthly proportion of belt use for fatalities from November 2000 to December 2005 for front seat outboard occupants 15 years and older. Belt use was defined as lap, shoulder, lap and shoulder, and seat belt used but of unknown type. Unknown belt use was not included in the following analyses. Seat belt use among fatally injured crash victims is consistently lower than observed belt use and has been steadily rising since 2000. ARIMA analyses indicated that there was a significant increase in the proportion of belted fatal occupants in the 31 month period following the 2003 Click It or Ticket campaign compared to what would have been expected from the trend of the preceding 31 months.

Using the time period of 31 months prior to program implementation (November 2000) and 31 months post- program implementation (ending with the most recent available month, December 2005) provided for maximum data during the follow-up period (see Table 9).

Table 9. FARS Data Used for Analyses

Time Period	Months of Inclusion
Pre-CIOT Campaign	November 2000 through May 2003
Post-CIOT Campaign	June 2003 through December 2005

Analyses were conducted on the proportion belted in each month (N = 62). Figure 3 demonstrates a clear increasing trend in proportion belted both before and after the intervention. The ARIMA estimates that there was a 3.5 percentage point monthly increase in belt use among fatalities of front seat occupants of passenger vehicles after the CIOT campaign compared to what would have been expected from the existing trend before the campaign (see Appendix D, Table1).

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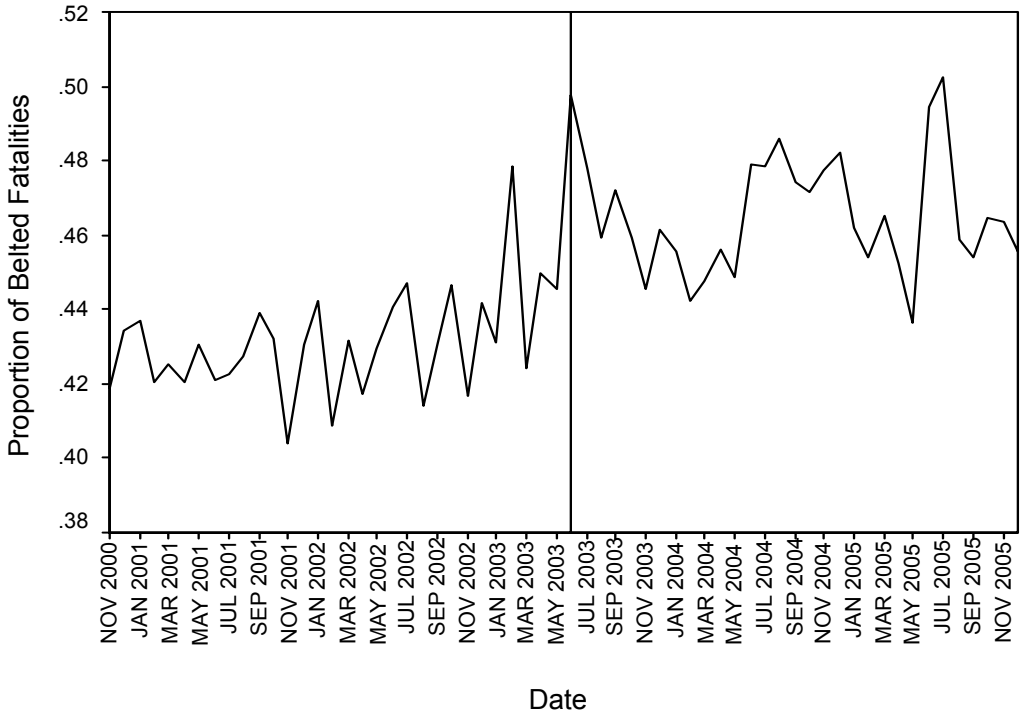
Figure 3. US Proportion Belt Use for Fatalities, November 2000-December 2005



We would expect to find a seasonal fluctuation each June after the May CIOT program. However, the ARIMA model for this analysis was (0,0,0) (0,0,0), which indicated no systematic fluctuation in the

data series. Thus a simple two sample T-test was also run. This analysis compared the proportion belted for 31 months prior to implementation to the 31 months following. The results showed a significant difference between the mean proportion of belted fatalities before CIOT (M = 43%) and the mean proportion of belted fatalities after CIOT (M =47%) (t (60) = -8.879, $p < 0.001$) (see Table 10).

Table 10. Group Statistics for t-test

	US_PRPST pre post June 2003	N	Mean	Std. Deviation
Proportion of Belted fatalities in the United States	**Pre** (November 2000 – May 2003)	31	.43095127	.014456363
	Post (June 2003 – December 2005)	31	.46570040	.016303055

FARS also provides belt use information on non-fatally injured front seat occupants who were involved in a fatal crash. A second ARIMA analysis included both fatally injured and non-fatally injured persons. The ARIMA model (1,0,0) (0,0,0) indicated a significant increase in the proportion belted after the implementation of the nationwide CIOT Campaign compared to what would have been expected from the previous trends. The ARIMA estimates that there was a 3.7 percentage point monthly increase in belt use among fatally injured and non-fatally injured persons after the CIOT campaign compared to before the CIOT campaign (see Appendix D, Table 2).

A third ARIMA analysis was conducted to test the impact of the 2005 Mobilization specifically. For this analysis, the modeling was designed to compare the 2003 and 2004 CIOT interventions combined (24 months) to the 2005 CIOT (12 months). For this analysis we expanded the data series used in the first ARIMA. We used FARS data (fatally injured front seat outboard occupants of passenger vehicles aged 15 and older) starting from January 1994 through December 2005. The results indicate that the 2005 CIOT had a small but significant impact on belt use ($p = .024$). Specifically, the 2005 CIOT was associated with a 0.8 percentage point increase in belt use above what would have occurred without the campaign (see Appendix D, Table 3).

The FARS database only contains data for fatal crashes, which are the most serious type of crashes. Fatal crashes may be very different from nonfatal crashes in terms of belt use and other factors.

Region Specific Analyses for May, June, July 2003-2005

Fatality Analysis Reporting System data were also used to further examine fatalities in targeted counties in the three months surrounding NHTSA regional demonstration projects: May, June, and July 2003-2005. These analyses were used to detect changes in the proportion of belted fatally injured front-seat outboard occupants, aged 15 and older, in passenger vehicles. The subsequent chapter further describes these demonstration projects.

South Central Region

The South Central Region comprises the States of Arizona, Louisiana, New Mexico, Oklahoma, and Texas. The BUIYT program was conducted in both 2004 and 2005 and focused advertisement in the period immediately preceding CIOT. The 2005 campaign differed from the 2004 campaign in that the former was enforcement-centered and the latter was not enforcement-centered. However, due to insufficient data, the examination of a differential effect for the two types of messages is not detectable due to a lack of power. Thus, the data for both campaign years was combined and compared to data from the two years preceding the start of the BUIYT program.

The proportion of belted fatalities in the months of May, June, and July 2004 and of the same months in 2005 (post-program period) was compared to the proportion of belted fatalities in the corresponding months of years 2003 and 2002 (pre-program period). The results of a chi-square test showed a significant increase in belted fatalities from pre- to post-campaign period. This was true for both trucks as well as passengers cars. In the case of trucks, proportion belted increased from 33.1 to 40.0% (6.9 points), $\chi^2(1) = 6.28$, $p = .01$; for passengers cars, the proportion belted increased from 53.0 to 58.5% (5.5 points), $\chi^2(1) = 9.1$, $p < .01$. Results of a binary logistic regression showed a significant interaction between period and vehicle type, with trucks showing a greater increase from pre- to post- in proportion belted than passenger cars, Wald (1) = 26.29, $p < .0001$. That is, while both car and truck belt use increased, trucks increased significantly more than cars.

Southeast Region

The Southeast Region includes Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee. All States in the region participated in the BUIYT demonstration in 2005 by running advertisement in the period immediately preceding the CIOT program. North Carolina and Tennessee ran enforcement-centered ads, however there was not enough data to differentiate the effect of the enforcement-centered message and the non-enforcement-centered message.

The proportion of belted fatalities in the months of May, June, and July 2005 (post-program period) was compared to the proportion of belted fatalities in the corresponding months of years 2003 and 2004 (pre-program period). Trucks showed 23.4% belt use in the pre- period and 26.0% in the post- period (2.6 point increase); passenger cars showed 41.6% belt use in the pre- period and 42.6% (1 point increase) in the post-demonstration period. There were no significant differences in the proportion of belted fatalities from pre- to post- period. That is, while there was an increase for both cars and trucks the measured increase did not reach statistical significance.

Great Lakes Region

The Great Lakes Region consists of six States, Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin, all of which participated in a rural demonstration program in 2005. In all six States, rural areas were targeted with TV and radio advertisement in the period immediately preceding CIOT. Three of the States (Illinois, Indiana, and Ohio) included one extra week of RDP enforcement. The proportion of belted

fatalities in the months of May, June, and July of 2005 (post-program period) was compared to the proportion of belted fatalities in the corresponding months of years 2003 and 2004 (pre-program period). Data was further compared across rural and urban areas (based on roadway functional class). The effect of enforcement was also examined.

In rural areas, the results of a chi-square test showed a significant increase in belted fatalities from pre-to post- campaign period. The proportion belted increased significantly from 46.8% in the pre-campaign period to 53.8% (7 points) in the post-campaign period $\chi^2(1) = 5.17$, $p < .05$. Additional analyses suggest that the effect of the campaign was only found where extra enforcement was conducted. Rural areas that had enforcement showed a significant increase from 44.7% (pre) to 57.4% (post; 12.7 points), $\chi^2(1) = 9.81$, $p < .01$, whereas non-enforced rural areas showed no change (49.3% pre- to 48.4% post; -0.9 points). The significance of the interaction between campaign and enforcement was further tested with a binary logistic regression and was found to be significant, Wald (1) = 8.01, $p<.01$. Thus, in rural areas, the difference from pre- to post- was significantly greater in enforced zones than in non-enforced zones.

The RDP, as its name implies, was targeted to rural areas. To test that the change in proportion belted was indeed due to RDP and not the overlaying CIOT program, comparison between urban and rural areas were also carried out in the areas with extra enforcement. As reported above, enforced rural areas showed a positive effect of the program from 44.7% belted (pre) to 57.4% belted (post). In urban areas (enforced and non-enforced), the difference from 51.2% in the pre- to 54.7% in the post- campaign period was not significant. In enforced urban areas, no significant difference was found from pre- to post-campaign (52.3% and 51.0% respectively). To further verify the specificity of the effect of the campaign, a binary logistic regression was performed. Looking at counties where enforcement was present, the result of the regression testing the significance of the interaction between campaign and area was found to be significant, Wald (1) = 7.06, $p<.01$. Thus, with enforcement present, the program had a stronger effect on rural areas than it did on urban areas.

Overall, these data show that the combination of the RDP and enforcement was successful in increasing proportion belted. Moreover, the effect of this rural-based program was limited to rural communities, thus suggesting that the targeting was indeed successful.

V. EVALUATION OF NHTSA REGION-WIDE DEMONSTRATION PROGRAMS

A. BUCKLE UP IN YOUR TRUCK DEMONSTRATION

Background

National Highway Traffic Safety Administration fatality data indicate occupants in pickup trucks consistently have lower seat belt usage rates than occupants in automobiles, vans and sport utility vehicles. While there have been steady increases in seat belt use rates for all types of vehicles over the years, the belt use rate in pickup trucks has continued to lag behind other vehicle types.

The Fatality Analysis Reporting System indicates that three out of four pickup truck occupants killed in crashes were not wearing a seat belt. In comparison, just about one-half of occupants killed in passenger cars were unbelted (National Center for Statistics & Analysis 2003). Observational surveys indicate belt use among front-seat occupants in pick up trucks typically ranges 5 to 15 percentage points lower than usage in other types of passenger vehicles.

Seat belts are the single most effective tool to reduce fatal and nonfatal injuries in motor vehicle crashes. Seat belts are 45% effective in reducing fatalities among occupants in passenger cars. They are 60% effective in light trucks (Dinh-Zarr et al. 2001).

1. BUCKLE UP IN YOUR TRUCK - SOUTH CENTRAL

NHTSA's South Central Region (SCR) includes five States, Arkansas, Louisiana, New Mexico, Oklahoma, and Texas. In 2002, there were 5,048 passenger vehicle occupants killed in car crashes across the region; 1,348 of these occupants were driving or riding inside a pickup truck.

The five States in NHTSA's South Central Region first implemented the Buckle Up in Your Truck (BUIYT) enforcement/media programs in May 2004 (see Evaluation of the May 2004 Mobilization; Programs to Increase Seat Belt Use, NHTSA). This region-wide effort included an advertisement campaign focused on the dangers of not wearing a seat belt when in a pickup truck. The campaign's center piece was the use of targeted television and radio advertisements to encourage non-belt-users in pickup trucks to buckle up. The advertisements were not intended to be enforcement-centered, but rather stressed the usefulness of seat belts in a dangerous roll-over type crash. This was a two-week advertisement campaign timed to immediately precede the usual CIOT campaign which included high-visibility enforcement of seat belt laws.

All five States switched to an enforcement-centered script for the 2005 BUIYT advertisement campaign and all five committed more effort toward enforcement-centered outreach and messaging. The May 2005 Mobilization immediately followed BUIYT. Given the commitment of time and resources devoted to this BUIYT campaign and CIOT, a multi-faceted evaluation assessed the effectiveness of the campaign by measuring public awareness and examining actual belt usage.

South Central Media/Publicity

Individual States in this region directed TEA-21 grant funds toward placing paid advertisements that encouraged occupants in pickup trucks to put on a seat belt. The level of funding for BUIYT and CIOT media purchases is presented in Table 11. Nearly $688,000 was directed toward placement of the BUIYT advertisements in 2004. Most of that amount was spent buying television air time focused on males between the ages 18 to 39. A much larger amount, nearly $2.9 million was spent on the purchase of enforcement-centered advertisements for the May 2004 CIOT Mobilization. Most of these dollars spent purchased placement for television advertisements. The 2005 BUIYT advertisement purchase was nearly 50% greater than the 2004 purchase ($1.2 million); the CIOT purchase made by these States was nearly the same amount ($2.8 million) from 2004 to 2005. Most of the dollars spent again went toward the placement of television advertisements.

Table 11. May 2005 South Central Region; *BUIYT* and *CIOT* Media Budgets

Total Budget	Estimated Dollars *BUIYT*	Cents Per Capita	Estimated Dollars *CIOT*	Cents Per Capita
4 Million / 11¢	$1.2 million	3¢	$2.8 million	8¢

Approximately 11¢ per resident were spent on BUIYT and CIOT advertisements (Table 12). That amount was higher than what was spent on advertisements across the 26 States not participating in any NHTSA region-wide demonstration programs in 2005 and the nation as a whole. Most of the SCR money (7¢) went toward the placement of television advertisements, some went to radio advertisements (3¢), and less (1¢) was spent on other types of message delivery like billboards and other types of signage.

Table 12. May 2005 South Central Region; Media Budget by Media Type

	SCR	Non-Demo States (26 States/Territories)	Nationwide Average (43 States/Territories)
Total	**11¢**	**7¢**	**9¢**
Television	7¢	3¢	5¢
Radio	3¢	2¢	2¢
Other/Unknown	1¢	2¢	2¢

Earned media was said to be generated in every State, generally associated with press events, press releases or outreach activities. Counts of earned media were provided for the combined BUIYT and CIOT programs but not specifically for BUIYT.

South Central Enforcement

No citations for seat belt and child restraint violations were documented for BUIYT in either year 2004 or 2005 given that the design of the program included enforcement only during the usual CIOT enforcement period. All five States intensified enforcement activity during CIOT. During the 2005 CIOT phase, approximately 1,102 enforcement agencies participated in the mobilization, representing an average of about 30% of all relevant agencies across these States. Law enforcement agencies issued 97,724 seat belt tickets, across the region. A high number of speeding tickets were also issued but not to the level of seat belt citations.

Table 13. May 2005 South Central Region; Law Enforcement Activity

Enforcement Action	Number
Seat Belt Citations	97,724
Unrestrained Child Citations	7,638
Speeding Citations	52,795
DWI Arrests	2,286

Level of seat belt ticketing ranged across the five States from 13 to 44 tickets issued per 10,000 residents; only one State issued seat belt tickets at a rate of less than 25 per 10,000 residents. Across the entire region, 27 seat belt citations were issued per 10,000 residents. That rate was higher than the nation-wide average of 25 per 10,000 residents. States in the SCR, on average, issued speeding tickets and made DUI arrests at the national rate.

Table 14. May 2005 South Central Region; Law Enforcement Actions per 10k Residents

	SCR	Non-Demo States	Nationwide Average
Seat Belt	27	26	25
Speeding	15	9	15
DUI	1	<1	1

South Central BUIYT Awareness

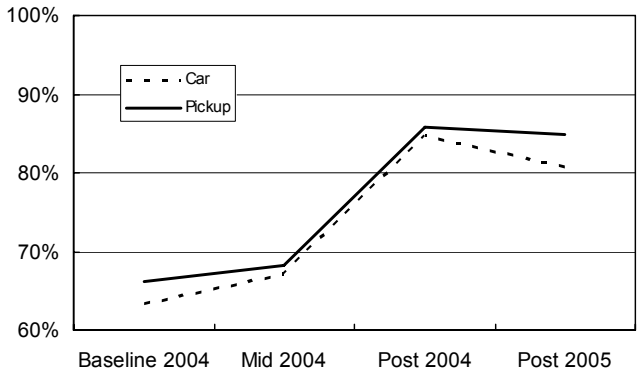
The SCR Buckle Up in Your Truck program was evaluated using knowledge/attitude surveys. Twenty-six driver licensing offices, an average of five per State, administered a one-page questionnaire to assess drivers' knowledge of *Buckle Up in Your Truck*, changes motorists may have made in their seat belt use behavior, how vigorously they felt their police agencies enforce the law and the likelihood police would stop them for a belt law violation.

Surveys collected over four intervals were examined for changes in awareness and perception over time. The first survey collection wave occurred just before the first implementation of BUIYT (baseline 2004). The second survey collection wave was timed to occur toward the end of the BUIYT advertisement period (rollover safety message) but before CIOT enforcement-centered advertisements began. The ost-

2004 wave occurred just after the May 2004 Mobilization concluded. Approximately one year later a fourth survey collection wave (post-2005) occurred just after the May 2005 Mobilization concluded.

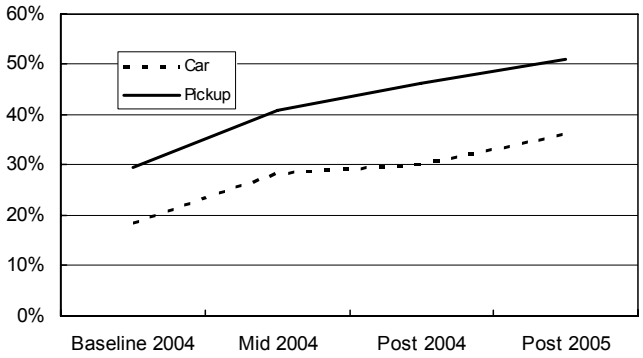
May Mobilization efforts have continued to keep awareness of seat belt use high. Even before the May 2004 Mobilization began approximately two-thirds survey respondents indicated recent exposure to seat belt messages. Over 80% of respondents indicated that they recently had read, seen, or heard messages about seat belt use after the conclusion of the mobilizations.

Figure 4. Recently Heard Seat Belt Messages



Messages concerning seat belt use and pickup trucks increased over the course of both mobilizations. Surveys results indicated increased awareness among drivers of all types of passenger vehicles. Level of awareness measured highest among respondents identifying themselves as usually driving a pickup; that remained the case over time. By the end of the second BUIYT mobilization, nearly 50% of respondents identified as pickup truck drivers reported recent exposure to messages concerning using seat belts when in a pickup truck.

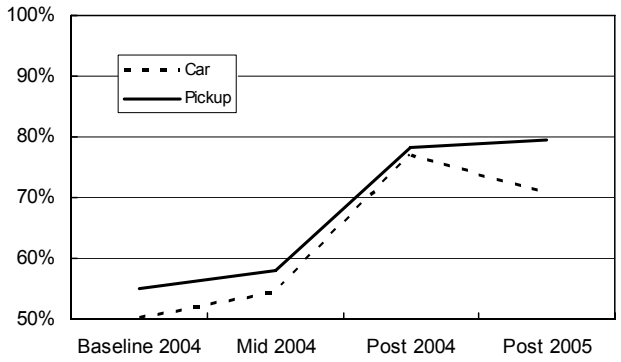
Figure 5. Recently Read Seen Heard Messages Concerning Belts and Pickups



The survey results indicated that BUIYT publicity was not necessarily received as an enforcement message, at least not at the time of the BUIYT advertisements in 2004; at that time a non-enforcement version of the advertisement was airing. The post-2004 survey, conducted immediately after the subsequent CIOT enforcement/advertisement campaign found much higher respondent awareness in regard to seat belt use enforcement. Post-2005 survey data indicated that awareness remained elevated among

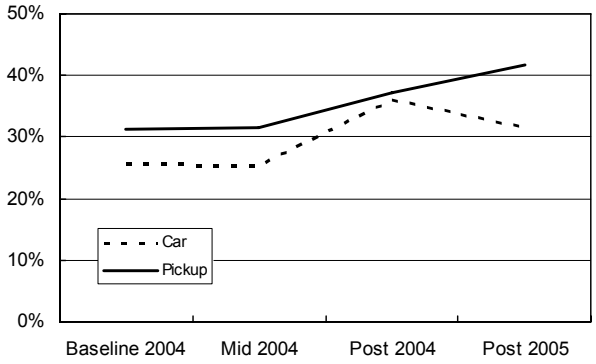
pickup truck respondents. Since surveys were not collected immediately after the 2005 BUIYT advertisements, it was impossible to tell whether the 2005 BUIYT advertisement version (more enforcement-centered) contributed to the increase.

Figure 6. Recently Heard Messages Concerning Enforcement



The proportion of respondents indicating personal experience with enforcement of seat belt use did not change over the course of the first BUIYT advertisement campaign in 2004, and that is not surprising given the non-enforcement advertisement content and lack of an enforcement effort at that time. Self reported experience with law enforcement measured higher immediately after the May 2004 CIOT enforcement-centered effort. By the end of the second BUIYT/CIOT effort (post-2005) personal experience remained relatively level among overall occupants but it continued to increase among respondents identified as pickup truck drivers. One might speculate that this increase is due, at least in part, to the more enforcement-centered content of advertisements focused on pickup truck occupants and to a stepped up outreach effort by highway safety officials that attempted to convince law enforcement officers not to ignore unbuckled occupants inside pickup trucks.

Figure 7. Personally Experienced Enforcement



Additional chi-square statistics were performed for the data presented in each of the above tables to test the significant level between the post- 2004 and post-2005 survey waves separately for cars and trucks. Each question produced a significant chi-square statistic for cars but not for trucks. Due to this finding, a test for interaction was included for trucks only. There were no significant interactions found for trucks.

South Central Belt Use

NHTSA's evaluation of the South Central Region's *Buckle Up in Your Truck* program also included observational surveys of belt use. Regional coordination facilitated shared data collection procedures among a number of evaluators in the five study States. States' ongoing evaluation contractors collected observational survey data and conducted analyses whenever and wherever possible. That included researchers at local universities and, in some cases, independent evaluation firms.

Observational surveys of seat belt use were conducted to track the seat belt usage rate before (baseline 2004), and after the first program wave (post-2004). Observational surveys were collected again in June 2005 (post-2005) immediately after the conclusion of the 2005 BUIYT/CIOT publicity and enforcement. The baseline 2004 survey wave was completed in the weeks leading up to the BUIYT implementation and included the use of mini-sample surveys. Procedures for conducting mini-sample surveys are identical to statewide observational surveys; however, mini-sample surveys use only a sample of sites from the statewide survey. The advantages to using mini-sample surveys is that they can be completed in a short period of time, using less labor, and costing fewer dollars. All of the States conducted full statewide surveys beginning immediately after the conclusion of CIOT (post-2005).

Results varied across State and wave. The change in proportions from baseline 2004 to post-2004 was positive for all States except Texas. Two of five States, Arkansas and New Mexico, indicated more improvement among occupants in pickup trucks compared to occupants in overall vehicles[3]. The change in proportions from post-2004 to post-2005 was positive for all States except for pickup trucks in Arkansas and New Mexico. The changes in proportions from baseline to post-2005 were greater for occupants of pickup trucks compared to occupants of cars in all States but Oklahoma. Belt use in pickup trucks improved in all five States with the greatest gains in the States that started with the lowest rates.

Table 15. South Central BUIYT Belt Results

		Baseline 2004*	Post 2004	Post 2005	Change (Baseline - Post 2004)	Change (Baseline - Post 2005)
Arkansas	Overall	60%	64%	68%	4	8
	Pickup	43%	65%	58%	22	15
Louisiana	Overall	67%	75%	78%	18	11
	Pickup	60%	69%	72%	9	12
New Mexico	Overall	87%	90%	90%	3	3
	Pickup	76%	88%	86%	12	10
Oklahoma	Overall	68%	80%	83%	12	15
	Pickup	58%	69%	73%	11	15
Texas	Overall	88%	83%	90%	-5	2
	Pickup	81%	79%	86%	-2	5
Region	Overall	75%	80%	86%	5	11
	Pickup	64%	74%	79%	10	15

* Overall in 2004 is represented by passenger cars; mini-survey results; post-2004 and post-2005 Pickup rates are from raw counts.

[3] Overall includes all passenger vehicle types.

The table below shows use rate by vehicle type for June 2003, June 2004 and June 2005. Overall occupants use rates in the table are the Section 157 statewide use rates. Pickup occupants use rates are derived from the Section 157 statewide surveys data but rates are based on raw counts of observations and are not weighted. These data indicate that pickup truck occupants did not post any greater gains, either year, compared to overall occupants. Therefore the disparity in use rates between vehicle types did not decrease. Still, States in this region on average posted a three point gain from 2004 to 2005, outperforming the average improvement posted nationwide.

Table 16. Region-wide Change in Seat Belt Usage

	2003	2004	2005	Change (2003-04)	Change (2004-05)	Change (2003-05)
Overall Occupants*	76.9%	78.5%	81.7%	+1.6	+3.2	+4.8
Pickup Occupants	70.3%	71.7%	74.9%	+1.4	+3.2	+4.6

*Statewide use rates averaged 1:1
(Source: Evaluation Results, Section 157 Belt Surveys 2003-2004-2005)

South Central Summary

A safety themed pickup truck messages preceded the normal enforcement-centered CIOT for the 2004 Mobilization. That was changed in 2005 whereby enforcement-centered pickup truck advertisements were coupled with enforcement-centered CIOT advertisements. That may have contributed to a greater amount of change in the region-wide belt use rate in 2005 compared to 2004; however, the gap in the use rate among pickup truck and overall vehicle occupants was not decreased.

2. BUCKLE UP IN YOUR TRUCK - SOUTHEAST

Eight States included in NHTSA Southeast Region (SER) joined together to conduct a region-wide BUIYT program to improve belt usage among occupants in pickup trucks. Data from this region indicated that pickup truck occupants were over-represented in the nationwide crash picture. Nationwide there were 5,801 pickup truck occupant deaths (2004); 1,782 of these deaths occurred in the Southeast alone (FARS). Many of those deaths could have been prevented simply by putting on a seat belt.

The States in this NHTSA Region are Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee. The Buckle Up in Your Truck approach was adopted from NHTSA's South Central Region and was implemented in a similar fashion, but with some modifications.

This campaign employed the use of targeted television and radio advertisements to encourage non-belt-users to buckle up. The campaign included a two-week period of pickup seat belt advertisements immediately preceding the national CIOT high-visibility enforcement campaign.

Southeast Media/Publicity

All eight States in the region helped to develop content for the *Buckle Up in Your Truck* television spot. NHTSA's national media contractor, the Tombras Group, developed and produced three versions of a television advertisement. One version communicated an enforcement-centered message; the other two presented more of a safety oriented message and all of them showed a uniformed officer in the ad. States had a choice between the three versions. A State's choice of advertisement version was largely based upon

its sensitivity to political and community support for this relatively new approach. The exemption for pickup trucks in Georgia's seat belt law restricted that State from using a more enforcement-centered BUIYT message.

The Tombras Group assisted all eight States with their media plans. This contractor designed plans based on pickup truck occupant fatality data in conjunction with grant amounts available to States for placing advertisements. The Tombras Group also developed and disseminated earned media material before kicking off the campaign. The Tombras Group bought media for targeted media markets within five of the eight States based on their approved media plans. Three of the States already had contracts with other media firms and purchased their own media.

Approximately $4.6 million was spent placing CIOT advertisements and $2.3 million placing BUIYT advertisements. Considerably fewer dollars were spent placing CIOT advertisements in 2005 compared to 2004 (an estimated difference of $1.2 million less). Given the safety oriented content of BUIYT advertisements in six of eight States, it can be said that some CIOT enforcement-centered advertisements were sacrificed (2005 versus 2004) for airing the safety oriented *Buckle Up in Your Truck* message.

Table 17. May 2005 Southeast Region
***Buckle Up in Your Truck* and *Click It or Ticket* Media Budgets**

Total Budget	Estimated dollars *BUIYT*	Cents per capita	Estimated dollars *CIOT*	Cents per capita
$6.9 Million / 13¢	$2.3 million	4¢	$4.6 million	8¢

Nearly 13¢ per resident were spent on BUIYT and CIOT advertisements. That amount was higher than what was spent on advertisements in States not conducting NHTSA demonstration programs (7¢) and the Nation as a whole (9¢). Most of the SER money (9¢) went toward the placement of television advertisements, less went to radio advertisements (2¢), and other types of message delivery like billboards and other types of signage (2¢). This was typical of previous mobilizations and of the nation.

Table 18. May 2005 Southeast Region;
Media Budget by Media Type

	SER	Non-Demo States (26 States/Territories)	Nationwide Average (43 States/Territories)
Total	**13¢**	**7¢**	**9¢**
Television	9¢	3¢	5¢
Radio	2¢	2¢	2¢
Other/Unknown	2¢	2¢	2¢

Earned media was generated in every State, generally associated with press events, press releases or outreach activities. However, there was no documentation of the number of media events held or news stories aired specifically for BUIYT. Data were provided for the CIOT phase when more media events were conducted and reported across the region.

Southeast Enforcement

Over half of the law enforcement agencies (LEAs) in the Southeast Region (59%) participated and reported on CIOT. These LEAs reported issuing approximately 103,000 seat belt citations. The number of seat belt citations was lower than previous mobilizations. For example, from 2004 to 2005 there was a 15% decrease in the number of seat belt tickets issued. A number of States in the region, both primary and secondary law types, issued speeding tickets in greater numbers than belt tickets.

Table 19. May 2005 Southeast Region;
Law Enforcement Activity in the Southeast Region

Enforcement Action	Number
Seat Belt Citations	103,060
Unrestrained Child Citations	6,473
Speeding Citations	179,741
DWI Arrests	11,005

Across the region, 18 seat belt citations were issued per 10,000 residents. That rate was much lower than the nation-wide average of 25 per 10,000 residents. States in the SER, on average, issued speeding tickets at a far greater rate than the rest of the country.

Table 20. May 2005 Southeast Region;
Law Enforcement Actions per 10k Residents

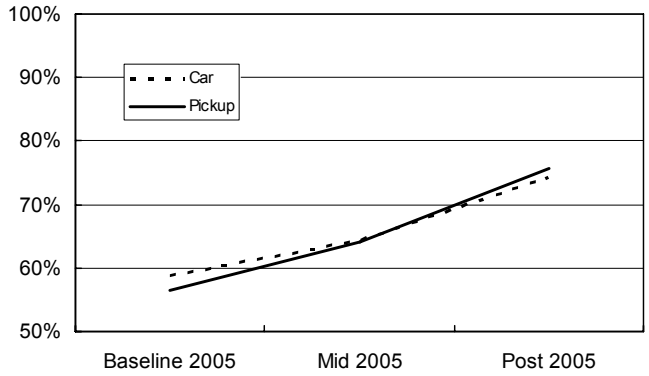
	SER	Non-Demo States	Nationwide Average
Seat Belt	18	26	25
Speeding	31	9	15
DUI	2	<1	1

Southeast BUIYT Awareness

Surveys were collected from motorists doing business in Driver Licensing Offices. Survey data were examined for changes in motorists' awareness and perception over time. Survey collection occurred in three intervals. The first survey interval occurred just before BUIYT publicity began (baseline 2005). The second survey collection interval was timed to occur toward the end of the BUIYT advertisement period, just before any CIOT advertisements aired (Mid 2005). The third interval (post-2005) occurred just after the May 2005 Mobilization concluded.

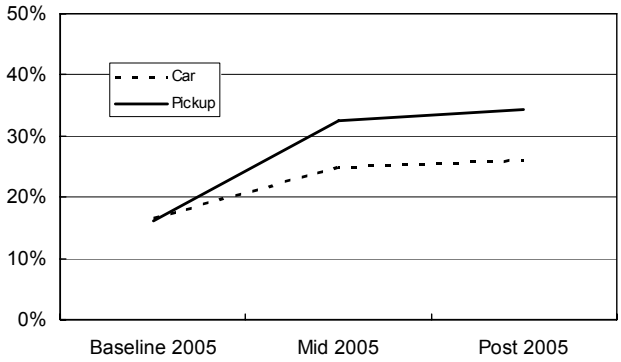
Awareness of seat belt messages increased over the course of BUIYT and CIOT. By the end of the 2005 May Mobilization, three out of four survey respondents indicated exposure to seat belt messages. The pattern of increase was similar among respondents identifying themselves as pickup drivers and respondents identifying themselves as passenger car drivers.

Figure 8. Recently Read Seen Heard Messages Concerning Seat Belts



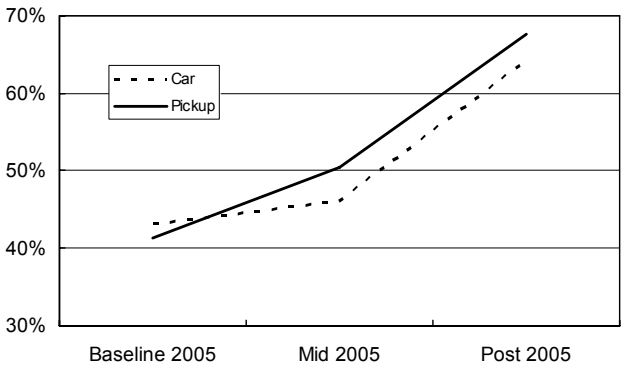
Messages concerning seat belt use and riding in a pickup truck increased at the time of the BUIYT advertisements (mid) and somewhat leveled out after that. Awareness of these messages increased more among pickup truck motorists compared to passenger car motorists, perhaps an indication that the messages penetrated more among the target group.

Figure 9. Recently Read, Seen, or Heard About Belts and Riding in a Pickup



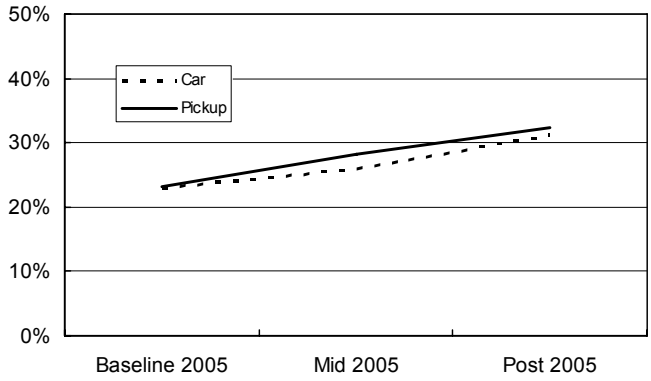
A greater proportion of respondents indicated exposure to messages concerning police enforcement. An increases was measured at the time of the Mid survey wave and an even greater increase was measured at the time of the post-survey wave. Awareness of these messages increased similarly among pickup truck motorists compared to passenger car motorists.

Figure 10. Recently Read, Seen, or Heard about Police Enforcement



The proportion of respondents indicating personal experience with enforcement of seat belt use increased over the course of BUIYT and CIOT. Respondents, regardless of the type of vehicle they usually drive reported equal experience with seat belt enforcement.

Figure 11. Personally Experienced Police Enforcement Focused on Seat Belt Use



Chi-Square statistics were performed on the data presented in each of the above figures to test the significance level across all three survey waves separately for cars and trucks. Each question produced a strong significant chi-square statistic for cars and for trucks.

Southeast Belt Use

Observational surveys of seat belt use tracked the usage rate before and after the May 2005 campaign. Observational surveys provided particular attention to belt use among front-seat occupants in pickup trucks compared to those in other vehicle types and designated market areas where *Buckle Up in Your Truck* advertisements aired to those that were not.

All States conducted surveys of belt use during the month of April (pre) leading up to BUIYT implementation. A small number of States conducted full statewide surveys just prior to BUIYT; most of the States conducted mini-sample surveys. Procedures for conducting mini-sample surveys are identical to statewide observational surveys however mini-sample surveys use only a sample of sites from the statewide survey. All the States conducted full statewide surveys beginning immediately after the conclusion of CIOT (Post).

Statewide use rates improved between June 2004 and June 2005 in four of seven States. Among the States that showed improvement, belt usage increased from 0.6 points to 4.0 points. Among these five States, three have a primary enforcement law. An additional State ("Other") that showed improvement implemented a new primary enforcement law during the mobilization period. One State that has a secondary enforcement law also improved but only marginally; this State spent the greatest amount of any on paid publicity for BUIYT and CIOT.

Table 21. Change in Statewide Belt Use; June 2004 – June 2005

	June 2004	June 2005	Diff.
Primary Law			
Tennessee	72.0	74.4	+2.4
Alabama	80.0	81.8	+1.8
North Carolina	86.1	86.7	+0.6
Secondary Law			
Kentucky	66.0	66.7	+0.7
Florida	76.3	73.9	-2.4
Mississippi	63.2	60.8	-2.4
Other Law			
South Carolina	65.7	69.7	+4.0
Georgia	86.7	81.6	-5.1

Observational survey data indicated that the region-wide car/truck disparity in belt usage was reduced over the course of the program (result based on population-weighted data). However, this had little or no consequence on the overall belt use rate in all vehicles, which remained essentially unchanged.

Table 22. Region-wide Change in Seat Belt Usage

SCR	2004	2005	Change (2004-05)
Passenger Car*	72.8%	73.4%	+0.6
Pickups**	61.7%	64.0%	+2.3

(Source: Evaluation Results, Section 157 Belt Surveys 2003-2004-2005, SCR)
* Weighted statewide use rate; Georgia excluded
** Averages based on raw counts; States weighted 1:1; Georgia excluded

Results varied across the States. The following tables provide individual State use rates from mini-sample surveys. Table 23 provides statewide results. Results from observational surveys in BUIYT advertisements locations are presented in Table 24.

Table 23. Change in Statewide Belt Use; Mini Survey Results April 2005 – June 2005

	April 2005 Passenger Cars	June 2005 Passenger Cars	*Diff.*	April 2005 Pickup Trucks	June 2005 Pickup Trucks	*Diff.*
Primary Law						
Tennessee	77.4	76.5	*-0.9*	62.4	60.6	*-1.8*
Alabama*	81.2	85.5	*4.3*	68.6	72.9	*4.3*
North Carolina*	88.6	89.8	*1.2*	77.9	79.9	*2.0*
Secondary Law						
Kentucky				52.2	56.0	*3.8*
Florida	75.8	75.3	*-0.5*	55.1	60.5	*5.4*
Mississippi	62.4	64.4	*2.0*	57.3	59.6	*2.3*
Other Law						
South Carolina	69.8	71.7	*1.8*	52.8	56.3	*3.5*
Georgia	86.6	84.5	*-2.1*	61.0	59.0	*-2.0*

* Alabama and North Carolina used enforcement-centered BUIYT advertisement.

Table 24. Change in Belt Use in Target DMAs; Mini Survey Results April 2005 – June 2005

	April 2005 Passenger Cars	June 2005 Passenger Cars	*Diff.*	April 2005 Pickup Trucks	June 2005 Pickup Trucks	*Diff.*
Primary Law						
Tennessee	77.4	76.5	*-0.9*	62.4	60.6	*-1.8*
Alabama*	81.0	83.6	*2.6*	66.8	67.6	*0.8*
North Carolina*	88.5	88.9	*0.4*	78.6	79.0	*0.4*
Secondary Law						
Kentucky				51.2	55.5	*4.3*
Florida	78.0	77.2	*-0.8*	57.0	65.2	*8.2*
Mississippi	59.3	59.4	*0.1*	43.8	45.3	*1.5*
Other Law						
South Carolina	68.9	69.0	*0.1*	51.8	51.3	*-0.4*
Georgia	86.4	85.9	*-0.5*	57.5	60.7	*3.2*

*Alabama and North Carolina used enforcement-centered BUIYT advertisement.

Southeast Summary

The BUIYT campaign worked better in some of States than others. Primary law locations using enforcement-centered advertisements for BUIYT and CIOT measured larger increases in statewide belt use. Secondary law locations that used non-enforcement messaging for BUIYT preceding enforcement-centered CIOT messaging did not experience statewide improvements.

Belt use among occupants in pickup trucks improved more compared to overall occupants across the region. As noted above, the amount of money previously spent on enforcement-centered CIOT advertisements was redirected toward safety-oriented BUIYT advertisements in a majority of States in this region. Belt usage across this region did not improve similarly to the rest of the nation. Diverting dollars from enforcement to safety messages should be considered as one reason that the Southeastern Region did not match the level of improvement observed nationwide. Another reason to consider is the decreased level of belt ticketing compared to previous years. A third reason to consider is that Georgia' seat belt law currently excludes pickup trucks.

B. EVALUATION OF THE GREAT LAKES REGION RURAL DEMONSTRATION PROGRAM

Background

The six States in the National Highway Traffic Safety Administration's Great Lakes Region (GLR) implemented a Rural Demonstration Program in an attempt to increase seat belt usage in rural areas. This NHTSA Region includes six States: Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin. Rural deaths account for nearly 70% of total and unrestrained deaths in the GLR. Of the total of 4,810 occupant deaths in 2004, 68% occurred in rural areas and 54% of those rural fatalities were unrestrained. While passenger cars were more frequently involved in rural deaths than any other vehicle type, pickup trucks were common and overrepresented among the unrestrained fatalities. As is the case in so many traffic safety problem areas, young occupants, males, and drivers contributed most to unrestrained rural deaths in the GLR. Males and drivers accounted for 2.5 times as many unrestrained deaths as females and passengers, respectively.

The RDP was implemented just prior to the May 2005 CIOT Mobilization. A key component of the rural targeted effort was paid advertising designed to alert rural residents that seat belt laws were being enforced. In three States, enforcement was also intensified during the RDP phase but, in the remaining three States, only the paid media was implemented. All six States then implemented a second wave of paid media, along with intensified enforcement during CIOT. Telephone, motorist, and observational surveys were conducted in all six States to monitor statewide and rural changes in awareness and seat belt usage.

Each State's evaluators designed, implemented, and analyzed the results of observational, telephone, and (in three States) motorist surveys collected in driver licensing offices. Summary results and, in some cases, raw survey data were provided to Preusser Research Group for a regional evaluation. Baseline surveys were conducted prior to the start of the RDP program, (Wave 1); just prior to the start of CIOT paid media (Wave 2); and after the completion of CIOT enforcement (Wave 3).

Great Lakes Region Media/Publicity

Four States targeted reasonably large rural segments of their population, while two States targeted much smaller segments. Media expenditures averaged $212,000 per State during the RDP phase and $516,000 per State during CIOT, but per-capita expenditures in targeted areas were highest during the

RDP. About two-thirds of the media funds were spent on television, with much less spent on radio, newsprint, and outdoor advertising. Gross rating points far exceeded the objective of 300-400 GRPs per target market. While only half the States intensified enforcement during the RDP, all States did so during CIOT. There were two versions of the television ad, "officer friendly." The difference between the two versions was whether the officer issued a belt citation or a warning to the motorist who he was going to see at Friday's game.

Combined, approximately $4.4 million was spent on advertisements across the Region. Some of those funds were used to place advertisements across RDP locations. Approximately $1.3 million was spent on rural paid media during the RDP (about 12¢ per capita in RDP target locations; 2¢ per capita across the NHTSA Region) and an additional $3.1 million was spent on statewide media during CIOT (about 6¢ per capita).

Table 25. May 2005 Great Lakes Region RDP Media Budget

Total Budget	Estimated Dollars *RDP*	Cents Per Capita*	Estimated Dollars *CIOT*	Cents Per Capita
$4,366,541 million / .09¢	$1,270,382	12¢*	$3,096,159	6¢

* Amount in table shows per capita rate in RDP target locations only; amount spent on RDP equals an additional 2¢ region-wide per capita.

During the RDP, expenditures were higher for television than for any other medium, accounting for about 60% of all media funds; radio had the next highest level of spending, accounting for about 30% (Table 26). Very little was spent on other media (i.e., billboards, banners, theatre ads, etc.). During CIOT, the use of television was even more prominent. Five States spent at least 70% of their media budgets on television. On average, closer to 20% of CIOT media funds were spent on radio.

Table 26. May 2005 Great Lakes Region; Media Budget by Media Type

	GLR	Non-Demo States (26 States/Territories)	Nationwide Average (43 States/Territories)
Total	**8¢**	**7¢**	**9¢**
Television	6¢	3¢	5¢
Radio	2¢	2¢	2¢
Other/Unknown	1¢	2¢	2¢

Earned media was generated in every State, generally associated with press events, press releases or outreach activities. However, there was limited documentation of the number of media events held or news stories aired during the RDP. More complete data were provided for the CIOT phase when more media events were conducted and reported across the region, mostly as kick-off events. More than 500 television (TV) news stories and perhaps twice as many radio news stories were aired across the region.

Great Lakes Region Enforcement

Overall, about 130,000 citations for seat belt and child restraint violations were issued over the two phases of the program, an average of 25 citations per 10,000 residents.

During the RDP, Illinois, Indians and Ohio intensified their enforcement activities. These States issued approximately 11,000 seat belt tickets across the RDP target locations alone. During the RDP, the level of ticketing, measured per 10,000 residents, varied from 32 in Illinois, 21 in Indiana and 13 in Ohio[4].

All six States intensified enforcement activity during CIOT. During the CIOT phase, nearly 2,300 enforcement agencies participated in the GLR mobilization, representing an average of about 65% of all relevant agencies in each State. The combined States issued approximately 116,000 seat belt tickets, across the region. Level of ticketing ranged from 15 to 32 tickets per 10,000 residents; all but one State issued seat belt tickets at a rate of 20 or higher per 10,000 residents (an average of 25 tickets per 10,000 residents).

Table 27. May 2005 Great Lakes Region; Law Enforcement Activity

Enforcement Action	Number
Seat Belt Citations	126,764
Unrestrained Child Citations	3,278
Speeding Citations	60,649
DWI Arrests	6,555

The rate of seat belt tickets issued across the GLR was similar to the nationwide rate. Over twice as many seat belt tickets were issued than speeding tickets.

Table 28. May 2005 Great Lakes Region; Law Enforcement Actions per 10k Residents

	GLR	Non-Demo States	Nationwide Average
Seat Belt	25	26	25
Speeding	12	9	15
DUI	1	<1	1

Great Lakes Region Awareness

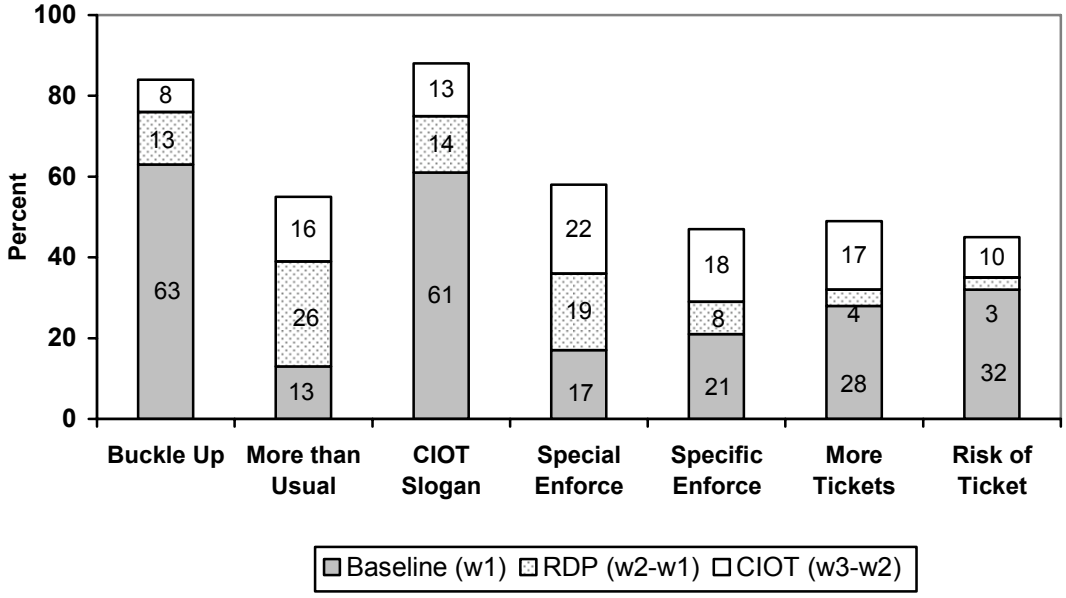
Telephone surveys were used extensively to measure changes in awareness of general seat belt messages and of enforcement-related messages and activity. Telephone survey data were collected in three waves across the rural targeted areas. Wave 1 (w1) collection occurred within a couple weeks time leading up to the RDP. Wave 2 (w2) was timed to occur during the latter half of the RDP publicity enforcement period, but before any CIOT publicity was aired. Wave 3 (w3) occurred just after CIOT publicity and enforcement concluded. Statewide telephone surveys were conducted in two waves. The first wave of statewide surveys occurred leading up to the RDP; the second wave began immediately after the CIOT program ended.

[4] Data for this state are for State Police activity only.

In rural targeted areas, awareness of seat belt messages increased most during the RDP, while awareness of enforcement-related messages and activities increased most during CIOT. During the RDP, awareness in rural targeted areas increased relative to statewide levels. By the end of the mobilization, however, rural and statewide awareness levels were similar on nearly every index.

Figure 12 shows RDP-related increases (w2-w1) in all three general awareness indices: buckle up (13 points); more than usual messages (26 points), and recognition of CIOT (14 points). Increases in these indices were significant in nearly all States. In addition, increases in awareness of special efforts by police to ticket were significant in all five States that provided data on this index (average increase = 19 points; $p \leq 0.05$). There were smaller increases in the remaining indices: specific enforcement efforts (8 points), police writing more tickets (4 points); and risk of receiving a ticket (3 points). These latter changes, while consistent, generally did not reach significance during the RDP.

Figure 12. A Summary of Baselines and Changes in Awareness of General Seat Belt and Enforcement-Related Messages; Results of Telephone Surveys in Rural Targeted Areas



Following CIOT, all States reported increases regarding all indices in their targeted rural areas. This was the case for both general and enforcement-related messages. The largest average change (+22 points) was in awareness of special efforts by police to ticket. This is consistent with the fact that all States intensified enforcement and implemented their CIOT paid media efforts during this phase. Figures 13 and 14 show changes in awareness of general and enforcement-related messages, respectively. General message awareness tended to increase more during the RDP while awareness of enforcement-related messages tended to increase more during CIOT. Awareness of special police efforts to ticket increased nearly linearly throughout the mobilization.

Figure 13. Awareness of General Seat Belt Messages; Results of Telephone Surveys in Rural Targeted Areas[5]

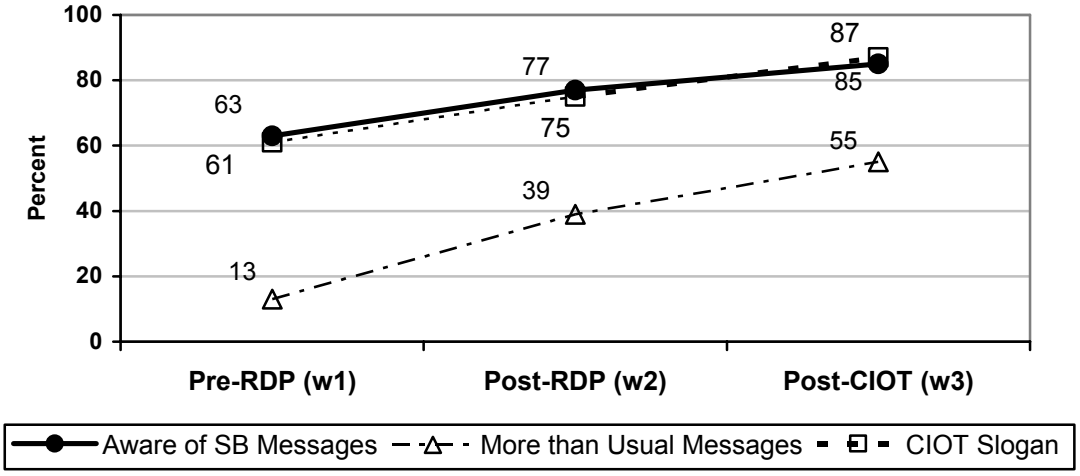
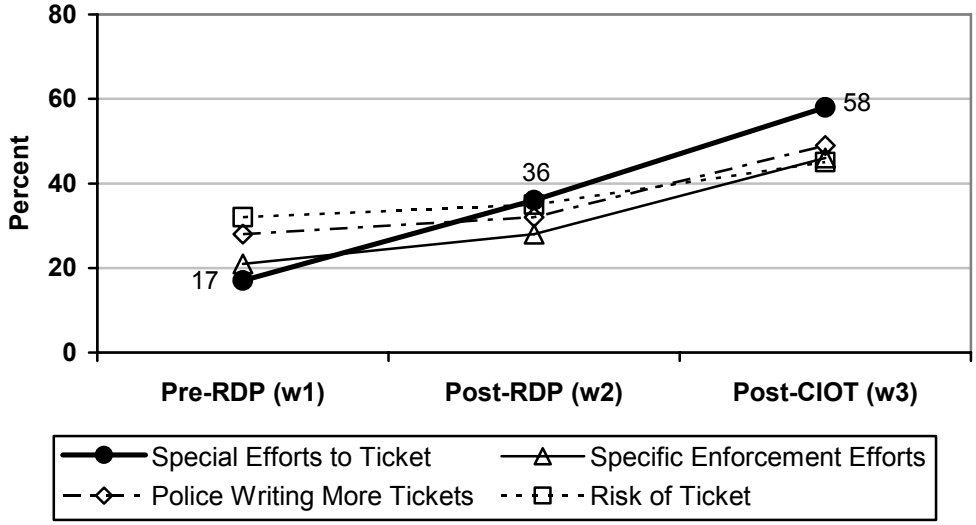


Figure 14. Awareness of Enforcement-Related Messages and Activities; Results of Telephone Surveys in Rural Targeted Areas



Nearly every State experienced significant overall increases in every index (for which data were available). The only exception involved perceived risk of receiving a ticket, where 4 of 6 States reported a significant increase. Awareness of special efforts by police to ticket and of specific enforcement efforts (e.g., enforcement zones or road checks) increased more than perceptions of more tickets being issued or increased risk of receiving a ticket. [6]

[5] All entries are averages for all states for which data were available

[6] In five states, only overall statewide changes (w3-w1) could be examined. That is because in all states, other than Michigan, only two statewide awareness surveys were conducted.

Figure 15. A Summary of Baselines and Changes in Awareness of General Seat Belt and Enforcement-Related Messages; Results of Statewide Telephone Surveys

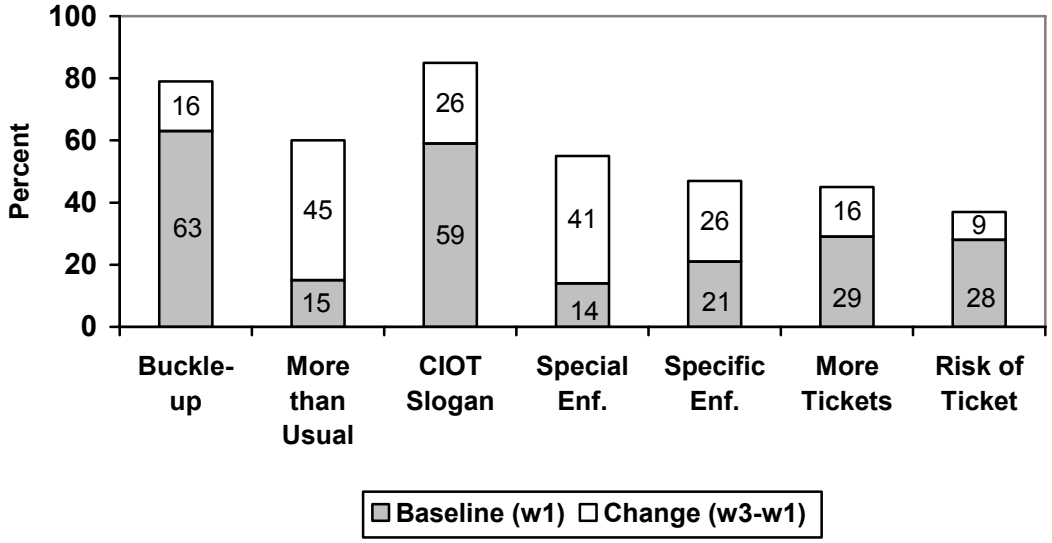
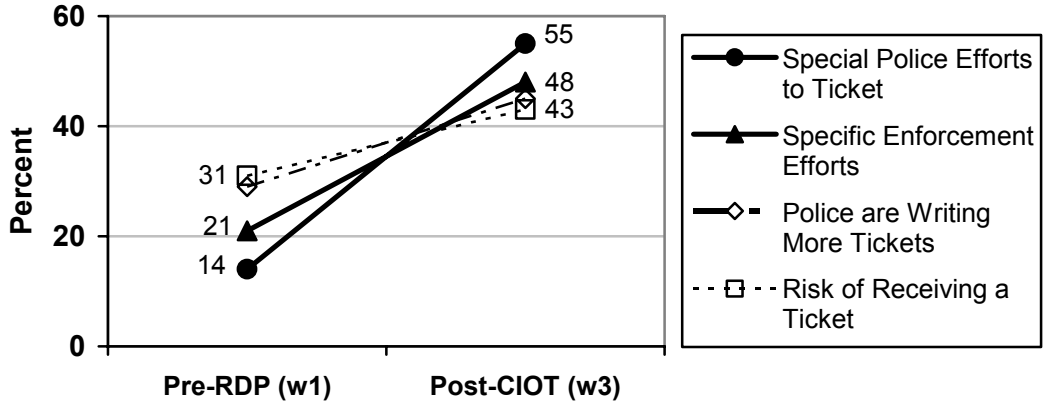


Figure 16. Awareness of Enforcement-Related Messages and Activities; Results of Statewide Telephone Surveys



Great Lakes Region Belt Use

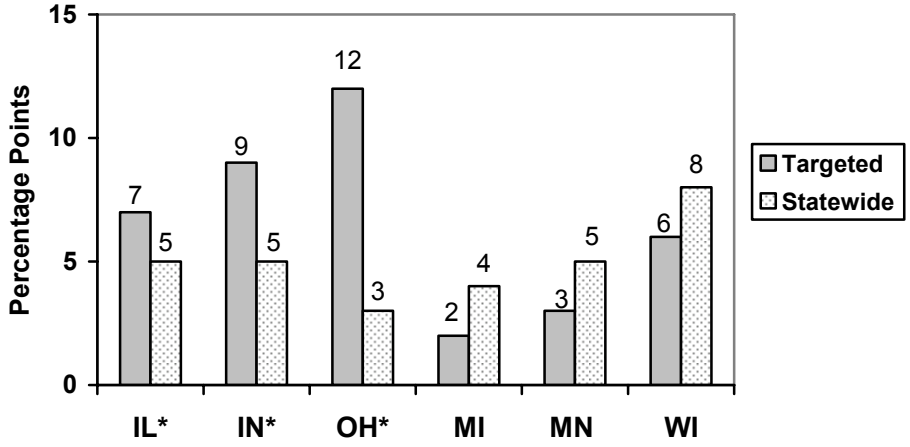
Changes in seat belt usage were measured by means of observational surveys. These efforts consisted of statewide and rural-targeted surveys in all six States and rural, non-targeted surveys in two States. Statewide surveys were of two types: full surveys and mini-surveys. Full statewide surveys met the requirements established for statewide observational surveys under regulations, 23 C.F.R. Part 1340[7] Using fewer sites, mini-surveys can be completed in a few days, rather than a few weeks, making them more suitable for measuring a use rate at several stages of a one-month program. Mini-survey sites were nearly always selected from sites in the full survey and the same procedures were followed in conducting both types of surveys. Mini-surveys were used to measure statewide baseline and post-RDP usage in most

[7] These requirements were established as the Uniform Criteria For State Observational Surveys of Seat Belt Use as part of Section 157 of the Transportation Equity Act for the 21st Century (TEA-21).

States. Surveys were conducted in three waves. Wave 1 (w1) surveys were conducted just prior to the RDP. Wave 2 (w2) surveys were conducted immediately prior to CIOT publicity. Wave 3 (w3) surveys were conducted immediately after CIOT and media and enforcement concluded. In addition, mini-surveys were used to measure change in rural-targeted areas in all six States.

The figure below shows a median 7-point increase in usage in rural targeted areas (w3-w1), compared with a median 5-point statewide increase, possible evidence of additional impact in the rural areas. There were clear differences between States that intensified enforcement during the RDP and States that did not. The Figure shows, there was a 9-point median increase in the targeted areas of the three RDP-enforcement States (w3-w1), compared with a 3-point increase in the non-enforcement States. Thus, the rural estimates of change in the three enforcement States were considerably greater than the statewide estimates, an even stronger indication that two waves of enforcement (i.e., RDP + CIOT) were associated with a greater impact on usage than one wave (i.e., CIOT only).

Figure 17. Overall Percentage Point Change in Seat Belt Usage (w3-w1)
Rural Targeted Areas versus Statewide



*Enforcement during RDP media period

Following the RDP, the States with significant increases in use rates were the three States implementing intensified enforcement during this period. Following CIOT, five of six States reported significant increases in usage in targeted rural locations. All States experienced significant increases in statewide usage by the end of the CIOT phase.

Table 29. Region-wide Change in Seat Belt Usage

	2004	2005	Change (2004-05)
Overall Occupants*	80.9%	82.4%	+1.5

*Statewide use rates averaged 1:1
(Source: Evaluation Results, Section 157 Belt Use Surveys 2003-2004-2005)

Great Lakes Region Summary

GLR States that intensified enforcement during the RDP experienced significant increases in seat belt usage during that phase. In addition, these States experienced overall increases in their rural targeted areas that were greater than statewide increases (w3-w1). These findings suggest that, under these conditions, the RDP was effective in increasing usage in rural targeted areas and appears to have contributed additional impact to the *Click It or Ticket* efforts which followed.

Statewide seat belt usage increased significantly in all States following the implementation of the both phases of the mobilization. There was a median 5-point increase (w3-w1) and this change was similar for primary and secondary law States.

Seat belt use increases following CIOT were greater than those following the rural program. This was likely due in part to the lack of enforcement during the RDP in three States and possibly due to more intense enforcement and a harder enforcement messaging during the CIOT phase.

In summary, the addition of enforcement to paid media during the RDP appears to have added to the impact of the overall mobilization in those areas. Generally, usage did not increase unless enforcement was present and two waves of enforcement appeared to be more effective than one.

VI. DISCUSSION

The May 2005 National Mobilization was the largest-ever, nationwide, publicity and enforcement program to increase seat belt use. Approximately $33 million worth of paid advertisements repeatedly advised motorists to *Click It or Ticket*. The threat of enforcement was real; law enforcement issued over 727,000 seat belt citations in a two-week period.

Forty-one percent of law enforcement agencies across 48 States, the District of Columbia, and Puerto Rico reported some level of participation for the May 2005 Mobilization. That level of support was garnered in both primary and secondary law locations.

Evaluation results indicated that short term and well publicized enforcement worked to improve seat belt use. Belt use improved after the public was exposed to the national mobilization's publicity and enforcement. Belt use improved in both primary and secondary law locations. It should be noted that subsequent gains in belt usage have been decreasing in a linear fashion over the last three years in secondary law locations; the same pattern was not observed in primary law locations.

Demonstration programs in three NHTSA regions focused OP STEP efforts on lower belt usage targets, either pickup truck occupants or rural locations. Each of the demonstration programs used targeted advertisements that repeatedly warned occupants of the dangers of riding unrestrained and in some cases provided a warning of enforcement consequences if not wearing a seat belt.

All six States in NHTSA's Great Lake Region focused additional enforcement-centered advertisements preceding the May 2005 Mobilization activities. These advertisements targeted broad rural areas in these States. Three of the six States also added an additional week of enforcement targeting motorists traveling in these rural areas. Not surprisingly, States using the full compliment of enforcement and enforcement-centered media had more success in the rural areas than the States not fully implementing the targeted OP STEP. Similarly, a number of States in NHTSA's South Central and Southeast Regions conducted OP STEPs that focused on improving seat belt usage among pickup truck occupants and were not as successful. These States may have done better with more intense fully implemented efforts.

The purpose behind OP STEPs, like *Click It or Ticket*, are not necessarily to issue seat belt tickets but to convince motorists that non-use will result in a ticket. The May 2005 Mobilization succeeded and consequently belt use increased where OP STEPs were fully implemented.

These results are strongly confirmed by analyses conducted with FARS data. Study results found an increase in national belt use rates among fatalities of front-seat occupants of passenger vehicles after the CIOT campaign compared to before the CIOT campaign. Specifically, FARS data are associated with the effectiveness of both South Central and RDP programs. A statistically significant effect was not found for South East. It is important to note that as with any non-experimental design, the findings do not rule out other influences on belt use. Certainly other factors may also be involved with the effects reported in this paper.

NHTSA should consider testing variations of the OP STEP model for differential effects due to targeting low belt use groups, duration of program elements and timing of program elements, but should keep mindful of the need to fully implement both enforcement and enforcement-centered media.

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Appendix A

SAMPLE – CLICK IT OR TICKET MOBILIZATION REPORT FORM

REPORTING PERIOD
FROM: 5/23/05 **TO:** 6/5/05
REPORTING ON: Safety Belt Enforcement

CREATED: By State Official, 7/12/05
UPDATED: By State Official, 7/12/05
STATUS: Finalized

REPORTING AGENCIES SUMMARY

LAW ENFORCEMENT AGENCIES	TOTAL IN STATE	PARTICIPATING THIS PERIOD	REPORTING THIS PERIOD
State Police Patrol Districts	16	16	16
County Sheriffs Police	124	67	51
City/Town Police	214	164	134
Other Agencies(Specify Below)	14	10	9

Other Agencies: Includes university, airport, military, and national park police, plus Kentucky Vehicle Enforcement (commercial vehicles)

SPECIFIC ENFORCEMENT ACTIVITY DURING THIS REPORTING PERIOD

Specifically on DWI Enforcement	0
Specifically on Belt Enforcement	61948
Specifically on Combined DWI/Belt Enforcement	0
Approximate % of total hours worked as Overtime	8 %
Approximate % of total hours worked at Checkpoints	2 %
Approximate number of Checkpoints conducted	788

Briefly describe the specific DWI and/or Safety Belt enforcement operations other than checkpoints worked this month:
Saturated patrol

DWI Arrests	815	Suspended Licenses	787
Safety Belt Citations	3132	Uninsured Motorists	2553
Child Safety Citations	224	Speeding	10391
Felony Arrests	635	Reckless Driving	285
Recovered Stolen Vehicles	84	Drug Arrests	672

Other Arrests: We use this category for "other traffic violations"

MEDIA ACTIVITY DURING THIS REPORTING PERIOD

PAID MEDIA
Approximate funds spent on paid media during this reporting period

TV Ads	Radio Ads	Print Ads	Billboards	Other Ads(see below)	Total
$198542	$57786	$1198	$35935	$0	$293461

Other Ads: Spanish language print ads were purchased in two Hispanic weekly newspapers (4 issues total).
Approximate numbers of paid advertisements broadcast during this reporting period

TV - 15928 Radio - 3599

EARNED MEDIA

Press Conferences Held This Period	1
TV News Stories Aired This Period	2
Radio News Stories Aired This Period	0
Print News Stories Run This Period	33
Other News Stories (Specify Below)	0

Other News Stories:

CONTACT INFORMATION

Name:
Phone Number:
E-mail Address:

Appendix B

SAMPLE - DRIVER LICENSING OFFICE SURVEY

Several Driver Licensing Offices in the state are participating in a study about safety belts in Arkansas. Your answers to the following questions are voluntary and anonymous. Please complete the survey and then put it in the drop box.

1. **Your sex:** □ Male □ Female

2. **Your age:** □ Under 21 □ 21-25 □ 26-39 □ 40-49 □ 50-59 □ 60 Plus

3. **Your race:** □ White □ Black □ Asian □ Native American □ Other

4. **Are you of Spanish/Hispanic origin?** □ Yes □ No

5. **Your Zip Code:** _____

6. **About how many miles did you drive last year?**
   □ Less than 5,000 □ 5,000 to 10,000 □ 10,001 to 15,000 □ More than 15,000

7. **What type of vehicle do you drive most often?**
   □ Passenger car □ Pickup truck □ Sport utility vehicle □ Mini-van □ Full-van □ Other

8. **How often do you use safety belts when you drive or ride in a car, van, sport utility vehicle or pick up?**
   □ Always □ Nearly always □ Sometimes □ Seldom □ Never

9. **Do you think that it is important for police to enforce the safety belt law?**
   □ Yes □ No

10. **What do you think the chances are of getting a ticket if you don't wear your safety belt?**
    □ Always □ Nearly Always □ Sometimes □ Seldom □ Never

11. **Do you think the safety belt law in Arkansas is enforced:**
    □ Very strictly □ Somewhat strictly □ Not very strictly □ Rarely □ Not at all

12. **Have you ever received a ticket for not wearing your safety belt?**
    □ Yes □ No

13. **In the past month, have you seen or heard about police enforcement focused on safety belt use?**
    □ Yes □ No

14. **In the past month, have you experienced police enforcement activities looking at safety belt use?**
    □ Yes □ No

15. **Have you recently read, seen or heard anything about safety belts in Arkansas?**
    □ Yes □ No

    If <u>yes</u>, where did you see or hear about it? (Check <u>all</u> that apply):
    □ Newspaper □ Radio □ TV □ Billboards □ Brochure □ Police Enforcement □ Other

    If <u>yes</u>, what did it say? _____

16. **Have you recently read, seen or heard anything about wearing a safety belt and riding in a pickup truck?**
    □ Yes □ No

17. **Do you know the name of any safety belt program(s) in Arkansas? (check <u>all</u> that apply):**
    □ Buckle Up Arkansas □ Buckle Up in Your Truck □ Click It or Ticket □ Operation Stay Alive

Appendix C

SAMPLE - TELEPHONE SURVEY

NHTSA COMBINED BELTS AND ALCOHOL SURVEY, 2005
(as adapted by Minnesota – Occupant Protection portion only)

State: _____ County: _____ Metro Status: _____

Date: _____ CATI ID: _____

Interviewer:_____

Telephone Number: _____

Time Start: _____ Time End: _____ TOTAL TIME: _____

_____

INTRODUCTION

Hello, I'm _____ calling for the Minnesota Department of Public Safety. We are conducting a study of Minnesotans' driving habits and attitudes. The interview is voluntary and completely confidential. It only takes about10 minutes to complete.

DUMMY QUESTION FOR BIRTHDAY QUESTIONS

Has had the most recent..... 1
Will have the next..... 2

A. In order to select just one person to interview, could I speak to the person in your household, 16 or older, who (has had the most recent/will have the next) birthday?

Respondent is the person.....	1	**SKIP TO Q1**
Other respondent comes to phone.....	2	
Respondent is not available.....	3	**ARRANGE CALLBACK**
Refused.....……....	4	

1. B. Hello, I'm _____ calling for the Minnesota Department of Public Safety. We are conducting a study of Minnesotans' driving habits and attitudes. The interview is voluntary and completely confidential. It only takes about10 minutes to complete. Could we begin now?

CONTINUE INTERVIEW..... 1
Arrange Callback……..... 2
Refused.....…… 3

Note: Text in brackets is not read, but available if asked.

*** Contractor may add screening questions here for over sampling.***

Q.1 How often do you drive a motor vehicle? Almost every day, a few days a week, a few days a month, a few days a year, or do you never drive?

Almost every day	1	
Few days a week	2	
Few days a month	3	
Few days a year	4	
Never	5	**SKIP TO Q7**
Other (SPECIFY)	6	
(VOL) Don't know	7	
(VOL) Refused	8	

Q.2 Is the vehicle you drive most often a car, van, motorcycle, sport utility vehicle, pickup truck, or other type of truck? (NOTE: IF RESPONDENT DRIVES MORE THAN ONE VEHICLE OFTEN, ASK:) "What kind of vehicle did you LAST drive?"

Car	1	
Van or minivan	2	
Motorcycle	3	**SKIP TO Q7**
Pickup truck	4	
Sport Utility Vehicle	5	
Other	10	
Other truck (SPECIFY)	11	
(VOL) Don't know	12	
(VOL) Refused	13	

For the next series of questions, please answer only for the vehicle you said you USUALLY drive.

Q.3 When driving this vehicle, how often do you wear your seat belt?... (READ LIST)

ALL OF THE TIME	1
MOST OF THE TIME	2
SOME OF THE TIME	3
RARELY OR	4
NEVER	5
(VOL) Don't know	6
(VOL) Refused	7

Q.4When was the last time you did NOT wear your seat belt when driving?

Within the past day	1
Within the past week	2
Within the past month	3
Within the past year.	4
A year or more ago/I always wear it	5
(VOL) Don't know	6
(VOL) Refused	7

Q.5 In the past 30 days, has your use of seat belts when driving this vehicle increased, decreased, or stayed the same?

Increased	1	
Decreased	2	**SKIP TO Q7**
Stayed the same	3	**SKIP TO Q7**
New driver	4	**SKIP TO Q7**
(VOL) Don't know	5	**SKIP TO Q7**
(VOL) Refused	6	**SKIP TO Q7**

Q.6 .....What caused your use of seat belts to increase?
(DO NOT READ LIST - MULTIPLE RECORD)

Increased awareness of safety	1
Seat belt law	2
Don't want to get a ticket	3
Was in a crash	4
New car with automatic belt	5
Influence/pressure from others	6
More long distance driving	7
Remember more/more in the habit	8
The weather	9
The holidays	10
Driving faster	11
Know someone who was in a crash	12
Observed more law enforcement	13
Other (SPECIFY____)	27
(VOL) Don't know	28
(VOL) Refused	29

Q.7 To the best of your knowledge, does Minnesota have a law requiring seat belt use by adults?

Yes	1	
No	2	**SKIP TO Q10**
(VOL) Don't know	3	**SKIP TO Q10**
(VOL) Refused	4	**SKIP TO Q10**

IF Q1=5 AND Q7=1, SKIP TO Q9
If Q2 = 3 AND Q7 = 1, SKIP TO Q9

Q.8 Assume that you do not use your seat belt AT ALL while driving over the next six months. How likely do you think you will be to receive a ticket for not wearing a seat belt? READ

Very likely	1
Somewhat likely	2
Somewhat unlikely	3
Very unlikely	4
(VOL) Don't know	5
(VOL) Refused	6

Q.9 To the best of your knowledge, according to your state law, can police stop a vehicle if they observe a seat belt violation or do they have to observe some other offense first in order to stop the vehicle?

Can stop just for seat belt violation..... 1
Must observe another offense first……..... 2
(VOL) Don't know.....……... 3
(VOL) Refused.....…… 4

Q.10 In your opinion, SHOULD police be allowed to stop a vehicle if they observe a seat belt violation when no other traffic laws are being broken?

Should be allowed to stop…..... 1
Should not...……... 2
(VOL) Don't know……..... 3
(VOL) Refused.....…….. 4

Q.11 Please tell me whether you strongly agree, somewhat agree, somewhat disagree or strongly disagree with the following statements?
ROTATE

a) Seat belts are just as likely to harm you as help you.

b) If I was in an accident, I would want to have my seat belt on.

c) Police in my community generally will not bother to write tickets for seat belt violations.

d) It is important for police to enforce the seat belt laws.

e) Putting on a seat belt makes me worry more about being in an accident.

f) Police in my community are writing more seat belt tickets now than they were a few months ago.

Q.12 Yes or No--in the past 30 days, have you seen or heard of any special effort by police to ticket drivers in your community for seat belt violations?

Yes.....	1	
No.....…….	2	**SKIP TO Q15**
(Vol) Don't know	3	**SKIP TO Q15**
(Vol) Refused	4	**SKIP TO Q15**

Q.13 Where did you read, see, or hear that message?
[DO NOT READ--MULTIPLE RESPONSE]

TV.....	1	
Radio.....	2	
Friend/Relative...	3	**SKIP TO Q15**
Newspaper…	4	**SKIP TO Q15**
Personal observation/on the road.....	5	**SKIP TO Q15**
Billboard/signs……....	7	**SKIP TO Q15**
I'm a police officer/judge…	9	SK**IP TO Q15**
Other (specify_____)….....	17	**SKIP TO Q15**
Don't know.....	18	**SKIP TO Q15**
Refused.....	19	**SKIP TO Q15**

Q.14 Was the (TV/radio) message a commercial (or advertisement), was it part of a news program, or was it something else? **MULTIPLE RECORD**

Commercial/Advertisement/
Public Service Announcement.....1
News story/news program 2
Something else (specify): _____ 3
Don't know.....4
Refused.....5

Q.15 In the past 30 days, have you seen or heard of any special effort by police to ticket drivers in your community if children in their vehicles are not wearing seat belts or are not in car seats or booster seats?

Yes.....1
No 2
Don't know.....3
Refused.....4

Q 16 Now, I would like to ask you a few questions about educational or other types of activities.
In the past 30 days, have you seen or heard any messages that encourage people to wear their seat belts. This could be public service announcements on TV, messages on the radio, signs on the road, news stories, or something else.

Yes	1	
No	2	**SKIP TO Q20**
Don't know	3	**SKIP TO Q20**
Refused	4	**SKIP TO Q20**

Q.17 Where did you see or hear these messages?
[DO NOT READ--MULTIPLE RESPONSE]

TV	1	
Radio	2	
Friend/Relative	3	**SKIP TO Q19**
Newspaper	4	**SKIP TO Q19**
Personal observation/on the road	5	**SKIP TO Q19**
Billboard/signs	7	**SKIP TO Q19**
I'm a police officer/judge	9	**SKIP TO Q19**
Other (specify_____)	17	**SKIP TO Q19**
Don't know	18	**SKIP TO Q19**
Refused	19	**SKIP TO Q19**

Q 18 Was the (TV/radio) message a commercial (or advertisement), was it part of a news program, or was it something else? **MULTIPLE RECORD**

Commercial/Advertisement/
Public Service Announcement. 1
News story/news program 2
Something else (specify): _____ 3
Don't know 4
Refused 5

Q.19 Would you say that the number of these messages you have seen or heard in the past 30 days is more than usual, fewer than usual, or about the same as usual?

More than usual..... 1
Fewer than usual.....…….. 2
About the same..... 3
Don't know.....…….. 4
Refused.....…... 5

Q.20 Are there any advertisements or activities that you have seen or heard in the past 30 days that encouraged adults to make sure that children use car seats, booster seats, or seat belts? This could be public service announcements on TV, messages on the radio, signs on the road, news stories, or something else.

Yes..... 1
No.....……..... ..... 2 **SKIP TO Q22**
Don't know..... ..... 3 **SKIP TO Q22**
Refused.....…….. ..... 4 **SKIP TO Q22**

Q21 ..... What did you see or hear?

_____

Q22 Thinking about everything you have heard, how important do you think it is for Minnesota to enforce seat belt laws for ADULTS more strictly . . . . very important, fairly important, just somewhat important, or not that important?

Very important.....……..... 1
Fairly important.....…… 2
Just somewhat important..... 3
Not that important.....……..... 4
Don't know.....…….. 5
Refused.....…….... 6

Q.23 In the past 30 days, have you seen or heard of any special effort by police to ticket drivers in your community for speed violations?

Yes..... 1
No.....…….. 2
Don't know..... 3
Refused.....…….... 4

Q24 Do you recall hearing or seeing the following slogans in the past 30 days? **READ LIST AND MULTIPLE RECORD**

ROTATE PUNCHES 1-?

. Friends don't let friends drive drunk.....1
Click it or ticket 2
Buckle Up America 3
Children In Back.....4
You drink and drive, you lose.....5
Didn't see it coming? No one ever does.....6
Make a pact, make a plan 7
14 Deadliest Counties (ACE) 8
Buckle Up or Pay the Price.....9
None of these .....
Don't know 88
Refused.....99

Q25. Do you recall seeing or hearing Traffic Safety messages from any of the following sources? Read list and multiple record.

Minnesota Twins
Movie theaters
Gas stations pumps
Rest Room Stalls

Appendix D

Table 1. Time Series ARIMA for United States and Fatally Injured

(Model: 000 000)		Estimates	Std Error	t	Approx Sig
Regression Coefficients	CIOT 2003	.035	.004	8.879	.000
Constant		.431	.003	155.733	.000

An interrupted time series was run on FARS data with equal pre and post time periods (31 months before and 31 months after the CIOT campaign). The data used for this analysis were FARS fatally injured, front seat, outboard occupants of passenger vehicles aged 15 and older. Stationarity for this interrupted time series analysis was achieved without adding parameters. Stationarity is defined as ACF and PACF being not significant for all lags. Therefore, the final model was (000) (000). All the time series analyses were conducted with SPSS 11.5 using the Trends module.

Table 2. Time Series ARIMA for United States and All Injury Levels

(Model: 100 000)		Estimates	Std Error	t	Approx Sig
AR I		.493	.111	4.431	.000
Regression Coefficients	CIOT 2003	.037	.006	6.720	.000
Constant		.621	.004	154.329	.000

An interrupted time series was run on FARS data with equal pre and post time periods (31 months before and 31 months after the CIOT campaign). The data used were the same as the first ARIMA analysis except all levels of injury were included (see Table 1). Stationarity for this interrupted time series analysis was achieved by adding one parameter, AR 1. Thus, the final model was (100) (000).

Table 3. Time Series ARIMA Exploring 2005 Effect (Fatally Injured: FARS 1994-2005)

(Model: 101 000)		Estimates	Std Error	t	Approx Sig
Non-Seasonal Lags	AR1	.988	.013	78.220	.000
	MA1	.718	.065	11.033	.000
Regression Coefficients	CIOT 2003	.041	.011	3.752	.000
	CIOT 2005	.008	.004	2.278	.024
Constant		.386	.022	17.591	.000

Melard's algorithm was used for estimation.

The data used for this analysis were the same data used for the first ARIMA (see Table 1). except the years 1994 to 2005 were used instead of the 31 months before and after CIOT.. Interruption series were designed to compare the 2005 effect to the 2003/2004 effect. Two interruption series were created. The model for this ARIMA used AR 1 and MA 1, making the final model (101) (000).

Appendix E

Statewide Use Rates; 2004 - 2005
(Source: National Center for Statistics & Analysis, NHTSA)

STATE	Law Type	2004	2005
Hawaii	Primary	95.1	95.3
Washington	Primary	94.2	95.2
Oregon	Primary	92.6	93.3
Michigan	Primary	90.5	92.9
California	Primary	90.4	92.5
Puerto Rico	Primary	90.1	92.5
Maryland	Primary	89.0	91.1
Texas	Primary	83.2	89.9
New Mexico	Primary	89.7	89.5
District of Columbia	Primary	87.1	88.8
North Carolina	Primary	86.1	86.7
Illinois	Primary	83.0	86.0
New Jersey	Primary	82.0	86.0
Iowa	Primary	86.4	85.9
New York	Primary	85.0	85.0
Oklahoma	Primary	80.3	83.1
Alabama	Primary	80.0	81.8
Connecticut	Primary	82.9	81.6
Louisiana	Primary	75.0	77.7
Tennessee	Primary	72.0	74.4
Nevada	Secondary	86.6	94.8
Arizona	Secondary	95.3	94.2
Utah	Secondary	85.7	86.9
West Virginia	Secondary	75.8	84.9
Virginia	Secondary	79.9	84.7
Vermont	Secondary	79.4	84.7
Delaware	Secondary	82.3	83.8
Pennsylvania	Secondary	81.8	83.3
Minnesota	Secondary	82.1	82.6
Montana	Secondary	80.9	80.0
Colorado	Secondary	79.3	79.2
Nebraska	Secondary	79.2	79.2
Ohio	Secondary	74.1	78.7
Alaska	Secondary	76.7	78.4
Missouri	Secondary	75.9	77.4
North Dakota	Secondary	67.4	76.3
Idaho	Secondary	74.0	76.0
Rhode Island	Secondary	76.2	74.7
Florida	Secondary	76.3	73.9
Wisconsin	Secondary	72.4	73.3
South Carolina	Secondary	65.7	69.7
Kansas	Secondary	68.3	69.0
South Dakota	Secondary	69.4	68.8
Arkansas	Secondary	64.2	68.3
Kentucky	Secondary	66.0	66.7
Massachusetts	Secondary	63.3	64.8

Mississippi	Secondary	63.2	60.8
Wyoming	Secondary	70.1	NA
Georgia	Primary (exemption on pickup trucks)	86.7	81.6
Indiana	Primary (exemption on pickup trucks)	83.4	81.2
Maine	NA	72.3	75.8
New Hampshire	NA	NA	NA

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