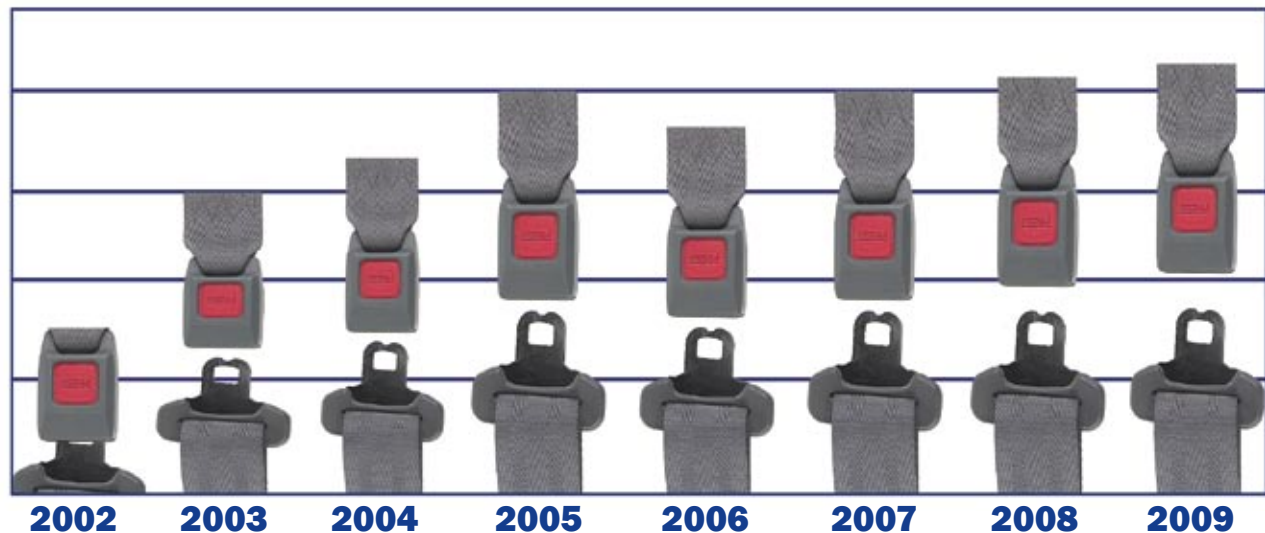


# Analyzing the First Years of the *Click It or Ticket* Mobilizations



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<p>The <i>Click It or Ticket</i> seat belt enforcement programs conducted between 2000 and 2006 were an important factor in increasing seat belt use nationwide and in virtually all States. This was the case for observed belt use, belt use in fatalities, and self-reported seat belt use. As enforcement programs continued across the country and belt use increased, public awareness and attitudes changed as well, with growing support for primary belt laws and belt enforcement. Among States with secondary seat belt enforcement laws, where an officer must first stop a vehicle for some other violation before issuing a seat belt citation, the States that increased seat belt use the most had greater levels of enforcement. Primary law States (where an officer can issue a belt citation upon observing an unbelted motorist like all other traffic laws) had substantially higher seat belt use and higher levels of enforcement than secondary States. States that converted from secondary to primary laws during the period showed the greatest increase in belt use. The five States that had the greatest increase in belt use (Utah, Michigan, North Dakota, Alabama, and Alaska) were compared with the five States with the smallest increases (Louisiana, North Carolina, Virginia, South Carolina, and Montana). While average media expenditures were similar, enforcement rates were almost twice as high in the States showing the greater increases. Support for <i>Click It or Ticket</i> programs remains high in most States, and it is likely that continuation of State programs with high enforcement intensity will be capable of producing further increases in belt use. The key to increasing seat belt use beyond 83% nationally are likely <i>Click It or Ticket</i> programs aimed at the general driving population, supplemented by special programs targeting low-use groups such as occupants of pickup trucks, residents of rural areas, and nighttime drivers.</p>					
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**BACKGROUND**

High-visibility seat belt enforcement mobilizations showed early signs of success in the 1980s in Canada. The first Statewide *Click It or Ticket* campaign took place in North Carolina in 1993, followed by South Carolina in 2000. The success was such that the program was implemented in 8 Southeastern States in 2001, followed by 18 additional States across the country in 2002. The campaign, which became nationwide in 2003, is ongoing. The national campaigns typically last several weeks and begin with earned media generated at the national, State, and local levels. Paid media follow a week or so later, followed by high-visibility enforcement lasting for two weeks. The campaigns have generally been successful, with 43 of 50 States and Territories showing increased belt use between 2003 and 2006.

**OBJECTIVE**

The objective of this report is to summarize the overall effects of these mobilizations over the period 2000 to 2006. This report explores changes in belt use and attitudes towards seat belt enforcement throughout the years. It examines whether those attitudes differ between States with primary and secondary seat belt enforcement and between States with high and low seat belt use rates. Also of interest is the correspondence between levels of enforcement, paid media dollars spent, and seat belt use rates, and the relationship between observed seat belt use and seat belt use in fatal crashes. This report assesses the status of the *Click It or Ticket* program and discusses steps necessary for increasing seat belt use.

**METHODS**

The analysis was based largely on archival data, including belt use, dollars spent on advertisements, enforcement activity, as well as surveys of public awareness and attitudes. Belt use was assessed in various ways. Nationwide seat belt use was obtained from NHTSA's National Occupant Protection Use Survey (NOPUS). Statewide rates were obtained from State Belt Use Surveys usually conducted in the three weeks following the *Click It or Ticket* mobilization. Finally, belt use in fatal crashes was obtained from the Fatality Analysis Reporting System (FARS). Since *Click It or Ticket* is mostly carried out during the daytime hours, nighttime fatal crashes were excluded from the data. Thus, FARS belt use only included front-seat outboard occupants of passenger vehicles, 15 and older, as was the case with existing *Click It or Ticket* evaluation reports. Daytime crashes were defined as crashes occurring between the hours of 4 a.m. and 8:59 p.m. Belt use rates were based on known and proper use only. Telephone calls to officials in select States addressed issues such as change in funding and general questions regarding the implementation of *Click It or Ticket* mobilizations.

Case studies of Idaho and Ohio, two secondary law States that performed well, provided additional insight into enforcement strategies and officials' (including law enforcement personnel) attitudes about belt use enforcement in secondary States.

## RESULTS

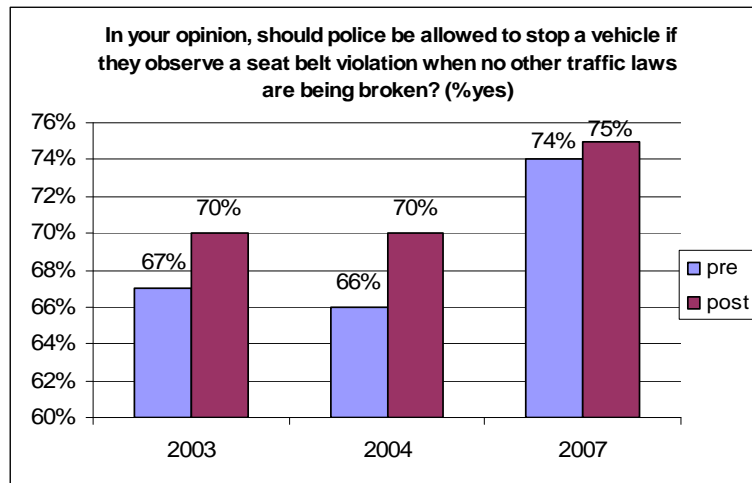
### National Trends

Over the course of 16 years (1991-2007), belt use rates increased by about 20 percentage points (+23 points in observed belt use, +20 points in percentage of belted fatalities). Overall, nationwide (NOPUS) observed belt use increased in the early 1990s, and then stagnated between 66 and 69% in the years 1993 to 1999. Belt use began to rise again in 2000 and increased each year from 2001 to 2005, reaching 82% before declining slightly to 81% in 2006. In 2007, belt use rose to 82%, reaching 83% in 2008, the highest daytime rate observed to date. Belt use among occupant fatalities showed the same rise in the early 1990s, with little change in the years 1996-1999, and a gradual rise in the 2000s, peaking at 52% and remaining at that level between 2004 and 2006. Level of media activity followed a similar pattern, increasing from 2001 to 2005, only to drop slightly in 2006.

**Changes in Belt Use, 1991-2007**

Year	% Belted (Observed)	% Belted (Daytime FARS)
1991	59%	33%
1992	62%	35%
1993	66%	39%
1994	67%	41%
1995	68%	42%
1996	68%	44%
1997	69%	44%
1998	69%	46%
1999	67%	45%
2000	71%	47%
2001	73%	48%
2002	75%	49%
2003	79%	51%
2004	80%	52%
2005	82%	52%
2006	81%	52%
2007	82%	53%

Telephone surveys were conducted nationwide, before and after the May Mobilizations in 2003, 2004, and 2007. Data from the surveys were used to examine changes and trends in attitudes and awareness of belt use and belt use enforcement. Self-reported belt use showed an increase over time, associated with increasing belief in the safety aspect of seat belts. Although enforcement activity was stable, perception of the strictness of enforcement increased, as did support for enforcement. For instance, there was increasing support for primary laws as well as higher agreement that belt enforcement is a worthwhile venture. Media awareness remained high throughout the period and the *Click It or Ticket* slogan became well known, increasing by 44 percentage points from 35% in 2003 to 79% in 2007.



### Measures of Change in Seat Belt Use

Three measures were used to assess changes in belt use in each State: the percentage change in observed belt use based on the statewide observation surveys; a “conversion” measure that assessed the extent to which non-users were converted to users; and the percentage change in belt use among fatally injured daytime front-seat occupants of passenger vehicles as reported in FARS. To give each measure equal weighting, a composite ranking score was created. Each State was ranked on each of the three scores and the average was computed. As a final stage, States were rank-ordered on this average.

### Changes in Seat Belt Use by State

The central question that this report addressed concerned the cumulative effects of *Click It or Ticket* programs during the 2000 to 2006 period. The program did not become national in scope until 2003, and thus in the majority of States, media and enforcement activity data were not available before 2003.

The average seat belt use in the years 1997 to 1999 was used as a baseline and increases in seat belt use between the baseline and 2006 were computed. States with the highest and lowest increases in seat belt use showed a clear-cut difference in their levels of enforcement but were quite similar on paid media activity. General changes in attitudes were evident across years but there were only minor differences between top and bottom States. Self-reported belt use rates and the perceived risk of being ticketed increased over time. Support for primary enforcement also increased between 2003 and 2007. Top and bottom States showed similar patterns of responses.

### Primary versus Secondary States

One major split among States is in terms of whether they permit standard enforcement of belt use violations or whether the belt violation must be secondary to another violation. Generally, belt use was higher in primary law States than in secondary law States. Other than the higher belt use rate in primary States, both primary and secondary law States show a very similar pattern of change over time.

**Percent Belt Use by Law Type, 1998-2007**

	% Belted (Observed)		% Belted (Daytime FARS)	
	Primary	Secondary	Primary	Secondary
<b>1998</b>	75%	61%	53%	40%
<b>1999</b>	76%	64%	50%	38%
<b>2000</b>	78%	65%	51%	40%
<b>2001</b>	80%	67%	53%	40%
<b>2002</b>	83%	70%	55%	41%
<b>2003</b>	84%	73%	57%	43%
<b>2004</b>	86%	75%	59%	45%
<b>2005</b>	87%	77%	57%	43%
<b>2006</b>	87%	78%	58%	45%
<b>2007</b>	87%	81%	56%	49%

Based on type of seat belt law, three groups of States were created to examine changes in attitudes between 2003 and 2007. The States were grouped based on existing belt laws at the time the surveys were conducted: primary States (primary law throughout), secondary States (secondary throughout) and conversion States (secondary law in 2003 with change to primary law by 2007). Responses to the survey showed important changes over time in most aspects reviewed (i.e., attitudes toward belts, perception of enforcement severity, and attitudes toward enforcement). Self-reported belt use increased over time and was higher in primary and conversion States than in secondary States. There were significant attitudinal differences between primary, secondary, and conversion States, especially on the issue of enforcement. Both perception of enforcement severity and support for primary enforcement of seat belt laws were stronger in primary and conversion States than they were in secondary States.

During the period 2000 to 2006, the seat belt use improvement rates varied substantially among States. Enforcement appears to be the key factor, especially in secondary enforcement States. Correlations between belt use change, media, and enforcement level were investigated based on primary, secondary, and conversion States separately. Change in seat belt use was measured according to rank, with the State with the greatest increase in seat belt use ranked lowest. One would therefore expect correlations between number of citations and amount for paid media to be negatively correlated with belt change rank. The conversion States showed no pattern ( $r = .22$  for media and  $r = -.16$  for enforcement, neither was close to significance). For primary enforcement States, there was a correlation of  $r = -0.46$  between belt use change and media dollars, and the correlation with citations was  $r = -0.24$ . Neither was statistically significant. For secondary States, there was no significant relationship between belt use change and media dollars ( $r = .05$ ), but the correlation with enforcement presence was significant ( $r = -0.65$ ,  $p = .001$ ).

When looking at changes in belt use over time, States that converted seat belt law from secondary to primary enforcement tended to show a larger increase than either primary or secondary States. Enforcement activity was higher in primary and conversion States than in secondary States while media tended to be higher in secondary and conversion States than it was in primary States. Overall, people in conversion States had a tendency to show more support for primary law and reported a higher risk of being ticketed.

## **SUMMARY**

During the 2000-to-2006 period when high-visibility seat belt enforcement mobilizations were in operation in the United States, belt use increased nationwide and in virtually all States. This was the case for observed belt use, belt use in fatalities, and self-reported seat belt use. As enforcement programs continued across the country and belt use increased, public awareness and attitudes changed as well. Telephone surveys indicated that awareness of enforcement activities increased over this period, and favorable attitudes toward enforcement increased as well.

Over the period 2000 to 2006, seat belt use has risen overall, and in most occupant subgroups. For instance, belt use increased among all the fatally injured driver groups between 1999 and 2006, but it remained relatively low among nighttime drivers (33%), drivers in rural areas (44%), drivers with high blood alcohol concentrations (BACs) (31%), pickup truck drivers (32%), and drivers of the oldest vehicles (42%). In recent years, NHTSA has taken steps to reach these more resistant populations. Special high-visibility enforcement programs conducted in recent years have targeted rural residents, pickup truck occupants, and nighttime belt use.

It is clear that *Click It or Ticket* seat belt enforcement programs conducted from 2000 to 2006 have been important factors in increasing seat belt use in the United States. Because the level of enforcement maximizes the effectiveness of these programs, the overall drop in enforcement in 2006 is a concern. The clearest and most consistent finding in this study was that secondary States with the greatest improvements in seat belt use had much greater levels of enforcement than secondary States with the least change; 3 to 4 times as many citations per capita. In contrast, media expenditures were inconsistently related to seat belt use changes.

Support for *Click It or Ticket* programs remains high in most States, and it is likely that if States continue with high-intensity enforcement programs, they are capable of producing further increases in belt use. Penalties for nonuse of seat belts are low in many States, and there is suggestive evidence that augmented penalties would also help to increase belt use. However, the centerpiece of efforts to increase seat belt use beyond 80% nationally are *Click It or Ticket* programs aimed at the general driving population, supplemented by special programs targeting low-use groups.



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## **I. INTRODUCTION**

Seat belts are highly effective in reducing deaths and serious injuries to motor vehicle occupants. Belts are available in virtually all passenger vehicles on U.S. roads and are easy to use. Despite these factors encouraging use, many motorists do not take advantage of the protection seat belts provide.

Before the passage of seat belt use laws, voluntary use of belts in the United States was abysmally low. Laws improved use but by themselves have been insufficient. The best method for increasing seat belt use has been intensive, short-term, highly publicized seat belt enforcement campaigns. The purpose of the present report is to summarize and comment on seven years of enforcement programs that took place in the United States in the years 2000 to 2006.

### **EARLY EFFECTS OF LAWS**

Observational surveys conducted in major cities in the 1970s indicated that belt use hovered around 10% (Robertson, 1978). In a survey of student drivers arriving at high schools in 1982, driver belt use was 5% or less at four out of six schools (Williams, Wells, & Lund, 1983). A 19-city survey conducted in major cities around the country found belt use rates of 11% in 1982, 14% in 1983, and 14% in 1984 (Goryl & Cynecki, 1984).

As seat belt use laws began to be enacted, initial effects on use rates were positive but limited. The typical pattern was that the highest rates were attained right after the laws went into force, that is, in the first month, and the effects were often dramatic. However, these initial jumps were followed inevitably by declines within a few months – though not to the levels that existed before the laws – and eventual stabilization (Williams, Wells, & Lund, 1987). Some people obey seat belt laws because it is the law, whereas others comply because they do not want to pay a penalty. Because there was little enforcement, the threat of a penalty dwindled over time, and publicity about the laws subsided.

### **THE CANADIAN EXPERIENCE**

The same type of slow progress took place in Canada, where laws were enacted about a decade before they appeared in the United States. Initial experience in Canada mirrored that of the United States. For example, in Ontario, driver belt use was 23% in late 1975, just before the law took effect, and 75% right after. Six months later use had dropped to 50% and it remained there (Robertson, 1978a). The same pattern was found in other provinces (Williams & Robertson, 1979). Overall, the initial experience with belt use laws was mediocre. Laws in Ontario and Quebec went into effect in 1976; the British Columbia law became effective in 1977. In 1980, belt use was 39% in Quebec, 44% in Ontario, and 49% in British Columbia.

In response to these disappointing use rates, provincial officials launched special enforcement programs in the early 1980s that substantially increased belt wearing. These programs varied, but they all had the same core components: increased publicity about the importance of using seat belts, greatly increased law enforcement, and publicity aimed at heightened visibility and awareness of the enforcement (Jonah, Dawson, & Smith, 1982; Jonah & Grant, 1985; Lamb, 1982; Manduca, 1983). Campaigns continued in Canada to solidify and extend the gains created by the initial publicity and enforcement efforts, and these programs are credited with increasing seat belt use to the 90% level, first achieved in 1994 and since maintained. The success of combined publicity and enforcement programs to increase seat belt use also have been documented in France, the Netherlands, and New Zealand (Hagenzeiker, 1991).

Publicized enforcement programs are firmly grounded in deterrence theory. Given a law, if people believe they are likely to be detected and meaningfully punished for violations, they will be more likely to comply. Publicity alone or enforcement alone is insufficient; the two are needed in combination. To establish a climate of deterrence, it is better if a State has primary (standard) enforcement, rather than making seat belt enforcement contingent on another violation (secondary enforcement) as is the case in about half the States.

## THE U.S. ADOPTS CANADIAN-STYLE PROGRAMS

Canadian-style publicity and enforcement programs to increase seat belt use subsequently were adopted and used successfully in the United States. Initially, their use was confined to small and medium-sized cities including Elmira, New York (Williams, Lund, Preusser, & Blomberg, 1987); Albany and Greece, New York (Rood, Kraichy, & Carman, 1987); Rock Falls/Sterling, Galesburg, and Danville, Illinois (Mortimer et al., 1990); and Modesto, California, (Lund, Stuster, & Fleming, 1989). These programs differed in style and content, but they all included highly visible enforcement and resulted in increased belt use. The Elmira program, for example, consisted of three phases: a week of publicity including television and radio spots featuring local enforcement officials, a week of publicity and warnings, and a week of ticketing. Seat belt use increased from 49% to 77%. A supplemental program the following year increased belt use to 80% (Williams, Preusser, Blomberg, & Lund, 1987).

These programs showed that Canadian-style enforcement programs would work in the United States in both primary and secondary States. During the campaigns, California and Illinois were secondary States and New York was a primary State. However, enforcement programs in primary States had greater success. For example, the Elmira, New York, and Modesto, California, programs used similar techniques, but there were greater gains in belt use in Elmira. The greater success of belt enforcement programs in primary States has been borne out in later evaluations, although percentage gains have sometimes been larger in secondary States when they are starting from a low baseline of belt use (Solomon, 2002; Solomon, Nissen, & Preusser, 1999).

The Elmira program was the model for North Carolina's *Click It or Ticket*. The Elmira program succeeded but left some important questions unanswered. Elmira had a population of nearly 35,000 and a concentrated media market. Was it possible to mount a successful seat belt enforcement program across an entire State? Second, whereas belt use spurted right after the program, it faded over time. Four months after the first program, belt use had dropped from 77% to 66%. Could a program be sustained over a period of years so that belt use would increase and stay increased?

A public/private partnership supporting a five-year program (1993-1997) was developed to increase belt use in North Carolina. Periodic enforcement waves were conducted throughout this period, augmented by extensive paid, earned, and public service media (Williams, Reinfurt, & Wells, 1996). In the years before the law, belt use in North Carolina had stabilized at 60 to 65%. Under *Click It or Ticket*, use rose to 80% in 1993 and eventually reached 84%.

North Carolina is considered a benchmark program and a model for subsequent seat belt enforcement programs. In the 1990s, these included the National Highway Traffic Safety Administration's 70% by '92 Operation Buckle Down Program implemented in 1991 and 1992, which resulted in increased seat belt usage in most participating States (Nichols, 1993). In addition, more than a dozen multi-year statewide enforcement campaigns were funded by NHTSA from 1993 to 1997 (Solomon et al., 1999). These programs were less intense than Elmira, North

Carolina-style programs and their reported impact was positive but limited (Dinh-Zarr et al. (2001).

In 1997, enforcement programs became one of the primary components of the National Automotive Occupant Protection Campaign (NAOPC), a public-private coalition formed to address the problem of air bag injuries to children. NAOPC later became the Air Bag & Seat Belt Safety Campaign (AB&SBSC). Beginning in May 1997, AB&SBSC, in cooperation with NHTSA, conducted a series of mobilizations to increase seat belt use at the national level. Thousands of police agencies were contacted to gain their pledged participation in intensified enforcement activities.

## **SPREAD OF *CLICK IT OR TICKET* PROGRAMS**

Before 2000, individual enforcement agencies contacted by AB&SBSC participated in varying degrees in the program, though essentially without full participation by the States (Milano, McInturff, & Nichols, 2004). However, since 2000, with funding from AB&SBSC and greatly increased funding from NHTSA, there has been “an increasing intensity, focus, and coordination of State-funded and coordinated enforcement and media activity” (Milano et al., 2004). Particular features of these more fully implemented programs are paid media and “hard” enforcement messaging, including use of the *Click It or Ticket* logo by many States. The *Click It or Ticket* programs included in this report are South Carolina in 2000; 8 southeastern States in 2001; 18 additional States across the country in 2002, and the annual national campaigns from 2003 through 2006.

In 2003, 45 States participated; in subsequent years, there was full participation. Each of these mobilizations has followed the Canadian model combining enforcement with publicity about the enforcement. The South Carolina campaign was conducted in November, but in subsequent years, campaigns have taken place in May. The national campaigns have typically lasted several weeks, starting with earned media generated at the national, State, and local level, paid media (primarily television and radio) starting a week or so later, enforcement starting a week later and lasting for two weeks, with both earned and paid media continuing throughout the period. States typically followed the same schedule, conveying a unified national enforcement presence.

In general, the campaigns have been successful, as evidenced by the fact that between 2003 and 2006, observed belt use rate has increased in 43 States (including DC and Puerto Rico). A 2008 report by the U.S. Government Accountability Office (GAO) highlights some of the challenges faced by NHTSA and State officials. For instance, belt use has traditionally been lower among pickup truck drivers and in rural areas. In response to these issues, special emphasis programs addressing belt use in pickup trucks were added in 2004, 2005, and 2006. Programs focusing on rural belt use were added in 2005 and 2006. An additional challenge faced by NHTSA, according to the GAO (2008) report, has been in the annual evaluations of the CIOT mobilization campaigns. NHTSA’s evaluations are limited by the data available. From year to year, data reporting has been somewhat inconsistent and far from comprehensive, especially about earned media and number of hours worked by law enforcement officers. This is due, in part, to that fact that although States are encouraged to do so, they are not required to submit full sets of data. Thus, NHTSA’s ability to evaluate the overall effectiveness of the campaign is hindered by the absence or incompleteness of some important information (e.g., enforcement and advertising activities).

## OBJECTIVES

The purpose of the present report is to examine the effects of these 2000-2006 Mobilizations, excluding the pickup truck and rural belt use programs. Each campaign was evaluated and documented separately (Solomon & Preusser, in process; Solomon, 2002; Solomon, Ulmer, & Preusser, 2002; Solomon, Chaudhary, & Cosgrove, 2004; Solomon, Chaffe, & Cosgrove, 2007; Solomon et al., 2007; and Tison et al., 2008). The intention in this report is to summarize the overall effects of the seven years of programs, assess the status of national seat belt enforcement programs, and to discuss future steps for increasing belt use.

There is ample evidence that belt use has increased during the 2000-2006 period. Forty-eight out of 50 States (including Puerto Rico and the District of Columbia) that have available data show an increase in observed belt use between 2000 and 2006 (the average change is a 13-percentage point increase). Although the CIOT campaigns have positively affected behavior, many questions remain regarding possible corresponding changes in attitudes toward belt use and enforcement. Essentially, are people buckling up more simply for fear of being ticketed or is internalization of the safety benefits of being belted also part of the equation? This report will explore changes in attitudes throughout the years, and will examine whether those attitudes differ between primary and secondary enforcement States. Another issue of interest is the correspondence between levels of enforcement, paid media dollars spent, and belt use rates. The link between observed belt use and belt use in fatal crashes also is explored.

Particular attention is paid to the best and worst performing States, that is, States that showed the largest and the smallest increases in seat belt use. This report will attempt to identify factors common to the success stories and contrast them to factors commonly associated with low levels of change. It will also explore the effect that the recent changes in funding (i.e., from Section 157 to SAFETEA-LU) have had on the implementation of the States' *Click It or Ticket* campaigns. Information on these and other issues will be obtained through telephone interviews conducted with officials from 22 primary and secondary States representing different regions of the country and site visits with officials in two States of interest.

## II. EVALUATION METHODS

Archival data were collected in order to evaluate the cumulative effects of the *Click It or Ticket* programs. Data of interest include public awareness and attitudes, as available through Driver Licensing Office surveys and nationwide phone surveys, as well as observed belt use, and proportion of belted fatalities.

Observational surveys of belt use were used to track belt use across time and across States. Data obtained from the Fatality Analysis Reporting System (FARS) provided an additional measure of belt use, namely belt use in fatally injured passenger vehicle occupants. These two sets of data are independent of each other and are collected in completely different ways. As such, they represent two distinct measures of belt use: belt used as observed in passing vehicles and belt use in fatally injured crash victims. Belt use rates in fatal crashes are lower than observed rates, in part because belts prevent some fatalities, but also because individuals more likely to be in potentially fatal crashes are less likely to use seat belts. As such, belt use based on FARS data are closely related to seat belt use rates in potentially fatal crashes, which are the situations where belt use is most important. These two sets of data, observed belt use and belt use in fatal crashes, were used for classification and subsequent comparison between States. Furthermore, changes in level of belt use across the period were computed and best and worst performing States were identified and compared. Changes in belt use were also compared between primary and secondary law States.

Information on amount of money spent on media was available from most States participating in the *Click It or Ticket* mobilizations. These data were used to explore associations between amount of paid media and level of belt use, and belt use change in the States. The differential impact of paid media on States with high and low belt use, and between primary and secondary law States were investigated. Details about the amount of enforcement (i.e., number of citations) were also provided by most participating States across the period reviewed. Not unlike the information on paid media, the link between belt use rate and enforcement level was assessed across States and across years.

National telephone surveys were conducted for some campaigns during the 2000-2007 periods. Changes in attitude were examined by looking at changes in response patterns across the years. Where data were available for specific States, differences in attitudes toward belt use and enforcement in primary and secondary States were explored. The differences between States that are high and low performing were assessed in a similar fashion.

Telephone calls to select States were also conducted to get answers to more specific questions. For instance, issues such as enforcement policies and challenges specific to secondary States were considered. The topics of changes in funding, the general implementation of the CIOT campaigns and their impact on the States were approached during these discussions. In-depth case studies were carried out in two States, Idaho and Ohio. Idaho was a particularly interesting case, being the secondary law State with the highest level of seat belt enforcement activity. It also showed the second largest increase nationwide in observed belt use between the years 2002 and 2006 (from 62.9% to 79.8%). Ohio has shown a sustained high level of seat belt enforcement activity during *Click It or Ticket* mobilizations and had steady increases in belt use between the years 2002 and 2006 (from 70.3% to 81.7%).

Detailed description of the evaluation tools follows.



## **OBSERVATIONAL SURVEYS OF BELT USE**

National seat belt use measures come from NHTSA's National Occupant Protection Use Survey, a probability-based observational survey conducted annually by NHTSA's National Center for Statistics and Analysis. NOPUS is considered the most reliable measure of national belt use. Over the period of interest, nearly every State conducted and reported on statewide surveys of belt use following the period of stepped up enforcement. These surveys followed NHTSA guidelines for conducting statewide surveys. These surveys followed NHTSA guidelines for conducting statewide surveys, which requires (a) the seat belt survey to have a probability-based design; (b) the data must be collected by directly observing seat belt use; (c) the relative error of the estimated seat belt use must not exceed 5%; (d) at least 85% of the State's population and (e) all day-light hours for all days of week must be eligible for inclusion in the sample. Observational surveys of belt use were:

- Compared across years to identify States showing the largest and lowest increase in belt use;
- Used to examine relationships between high/low belt use and attitudes and awareness of seat belt enforcement;
- Used to examine differences between primary and secondary law States as well as those converting from secondary to primary law.

Statewide observed belt use rates were correlated with statewide belt use in fatally injured passenger vehicle occupants (data obtained from FARS – see detailed description of FARS at the end of this chapter). Also, the extent to which changes in belt use occurred in States over the course of the CIOT programs was examined using three measures of change: the percentage change in observed belt use (statewide surveys), a “conversion” measure that assesses the extent to which nonusers are converted to users (also based on statewide observed belt use), and the percentage change in belt use among fatally injured daytime front-seat occupant of passenger vehicles as reported in FARS. In order to give each measure equal weighting, a composite ranking score was created and used to rank order the States from highest to lowest increase in belt use.

## **PAID MEDIA**

Information on amount of money spent on paid advertisement was used to examine the relationship between belt use rates, changes in belt use rate, and enforcement activity. The Preusser Research Group (PRG) tracked the money that NHTSA and participating States spent on advertisement for the years 2000 to 2006. Advertisement data were obtained directly from NHTSA's national media contractor, the Tombras Group. These data indicate dollar amounts spent by each participating State and the nature of the advertisement (i.e., radio, television, and other media). Information regarding paid media was used to assess:

- Amount of dollars spent each year on the national and State level;
- Dollar amounts related to changes in belt use;
- Variation among States in dollar amount spent on media as it relates to belt use; and
- Differential effects of media on primary and secondary law States.

Dollars spent per capita over the period reviewed were compiled and used as a basic measure of amount of media in each State. Correlations were computed between belt use change and amount of paid media. Data on paid media were also correlated with level of enforcement. Three groups of States were created (primary law, secondary law, and those converted from secondary to primary) and correlations between paid media and belt use change were computed for each group.

## ENFORCEMENT ACTIVITIES

Seat belt citation data were used to track trends in seat belt enforcement and examine variation across years and between States. Law enforcement agencies participating in the high-visibility enforcement generally provide their State Highway Safety Offices (SHSOs) with standard report form indicating enforcement activity during the heightened enforcement period. Each SHSO tabulated the reported enforcement and submitted mobilization reports to NHTSA. The reports indicate, among other things, the number of seat belt citations issued during the program period. Enforcement activity information for participating States was tracked by PRG for the period 2000 to 2006. Enforcement activity data were used to assess:

- Levels of enforcement that occurred over the period of interest;
- Variation among States in level of enforcement;
- Differences on enforcement level between high-belt-use-change States and low-belt-use-change States;
- Links between enforcement levels, attitudes and awareness, and belt use.

Total number of citations issued per 10,000 residents was computed for each State and used as a measure of enforcement level. Enforcement level was correlated with both amount of media and change in belt use. States were split into three groups (primary law, secondary law, and those converted from secondary to primary) and correlations between belt use change and enforcement levels were computed for each group.

A random sample of municipal and State law enforcement agencies was also drawn for the purposes of tracking seat belt enforcement actions between 2002 and 2006. The sample included representation of municipalities of various sizes in all 10 NHTSA Regions. PRG also gathered annual counts of seat belt citations issued from approximately one-third of State Police agencies. Primary and secondary law locations were equally included in the samples. Counts of citations were examined for trends in seat belt ticket writing. Dependent variables of population size served and type of law were examined for differences over time.

## ATTITUDE AND AWARENESS SURVEYS

Awareness surveys were collected from motorists visiting driver licensing (DL) offices in a number of States participating in the CIOT program. These one-page surveys were conducted before and immediately after the mobilization's publicity and enforcement. The surveys are designed to assess issues such as public knowledge and awareness, changes in motorists' seat belt use behavior, perception of severity of enforcement, etc.

Random dial telephone surveys were conducted before the enforcement program's publicity began and after heightened enforcement had ended. Nationwide surveys were conducted in 2003 and 2004. Regional/Statewide surveys were conducted in 2004 and 2005. Although the year 2007 falls outside the immediate scope of this project, data obtained from 2007 nationwide telephone survey were used to assess changes over time, as it was the most recent nationwide data available. Telephone surveys were used to compare the changes in awareness and attitudes across time, and how these changes differ between States that have high and low belt use improvement. Additional uses of both DL Offices and telephone surveys include:

- Analysis of how attitudes toward, and awareness of, enforcement have evolved over the course of multiple years of *Click It or Ticket* Mobilizations;
- Examining the differential effects on awareness in States showing a high level of change in belt use versus States showing a low level of change in belt use;

- Examining the differences in attitudes between secondary and primary law States;
- Examining the changes in attitudes in States that converted from secondary to primary law.

Once States were grouped into high versus low belt use change, changes in attitudes and awareness were explored using binary logistic regressions. States were also grouped based on existing seat belt law (primary, secondary, and converted). Using secondary States as a base, binary logistic regressions were computed to look at the differential impact of seat belt law on changes in attitudes.

## **FATALITY ANALYSIS REPORTING SYSTEM (FARS)**

Rates of belt use among fatally injured front-seat passenger vehicle occupants (daytime only) were used as an additional estimate of belt use and were compared to observed belt use rates. FARS data were used to identify changes in belt use over the period 2000 to 2006 and provided an additional measure of changes in belt use. Belt use among fatalities was also used in the following fashion:

- To identify high change and low change States in regard to belt use;
- To create a composite measure of belt use change by combining changes in belt use rates in fatalities with observed belt use.

FARS data were used to examine change in the proportion of belted fatalities over the course of the CIOT program. FARS data were classified into two equal periods, “pre-CIOT” (November 1999 to May 2003) and “post-CIOT” (June 2003 to December 2006). A simple T-test was used to compare the pre- and the post- periods. An ARIMA time series analysis was also conducted on the same data to test for a significant increase in the proportion of belted fatally injured occupants in the 43-month period following the first nationwide *Click It or Ticket* campaign (June 2003) compared to what would have been expected from the trend of the preceding 43-month period.

One of the measures of belt change was percentage change in belted fatalities. Statewide percentage change in belted fatalities was correlated with percentage change in statewide observed belt use and with the conversion rate computed from observed belt use. Percentage of belt use change in fatalities was used to create the composite ranking score used to rank order the States from highest to lowest increase in belt use. When assessing changes in belt use in fatal crashes, the selection criteria in FARS were matched to the criteria used in previous *Click It or Ticket* evaluation reports. As such, the FARS queries included front-seat outboard occupants of passenger vehicles 15 and older. Moreover, since *Click It or Ticket* is mostly a daytime program, only daytime fatal crashes were included and were defined as crashes occurring between 4 a.m. and 8:59 p.m., when most daytime activities take place. Belt use rates were based on known and proper belt use only.

## **TELEPHONE POLLS AND CASE STUDIES**

Telephone polls were conducted by PRG with officials from 22 States. These polls were used to explore how States differ on issues such as enforcement policies and practices. Based on these interviews, two States were selected for in-depth analysis. Three main issues of concern:

- Enforcement policies and practices in States that have secondary enforcement;

- How seat belt enforcement practices have changed since the inception of SAFETEA-LU;
- States' perceptions and attitudes regarding continuing with CIOT programs.

Information obtained from the phone interviews was collected and summarized. Two well-performing secondary law States were further selected for participation in a case study. PRG staff met with officials in Idaho and Ohio, collecting information on seat belt law, enforcement strategies, media message, management, and feelings toward the CIOT program.

### III. RESULTS

The most reliable estimates of national belt use come from the NOPUS, a probability-based observational survey that has been conducted since 1994. Since the late 1990s, almost all States have conducted annual observational surveys in June using probability based sampling schemes approved by NHTSA. However, omission of up to 15% of low-population areas is permitted in State surveys, so NOPUS provides the most accurate tally of nationwide seat belt use. However, given that State-by-State comparisons are at the heart of this report, results of the State-based surveys are used extensively in this study.

Changes in belt use can also be assessed by examining changes belt use rates among fatal crash victims. Belt use in fatal crashes is assessed via the FARS, a census of fatal crashes occurring on public roads in the United States. Belt use rates based on FARS are far lower than observed rates, partly because belts prevent some fatalities, and partly because those individuals more likely to be in potentially fatal crashes are less likely to use seat belts. FARS rates are thus closely related to use rates in potentially fatal crashes, which are the situations where belt use is most important. Since *Click It or Ticket* programs run during daytime hours, and observational studies are done during the day, in the present report nighttime fatal crashes were excluded.

#### NATIONAL TRENDS IN BELT USE

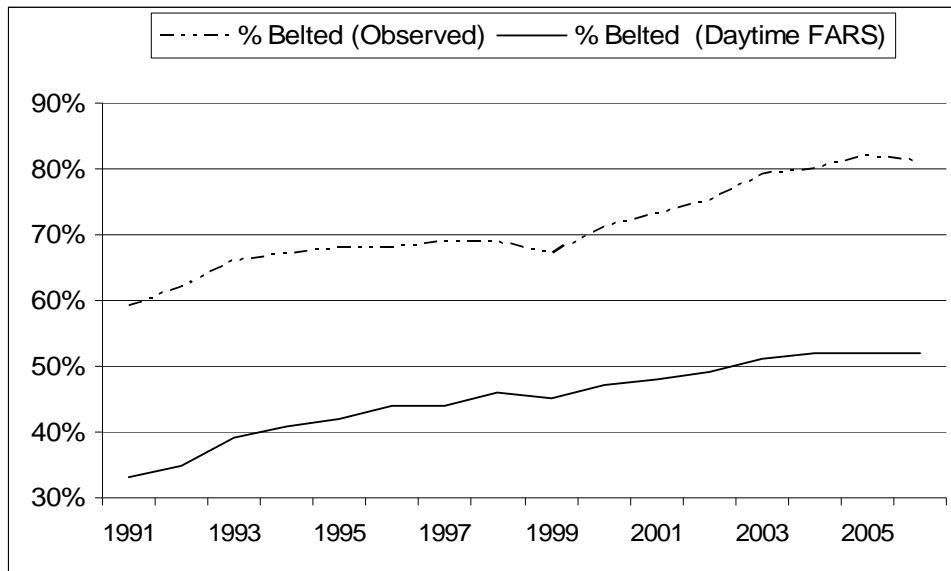
##### National Changes in Observed Belt Use

National changes in observed seat belt use, based on NOPUS surveys, and belt use among daytime (4 a.m. to 8:59 p.m.) outboard front-seat occupant fatalities 15 and older, based on FARS, are presented in Table 1 for the years 1991 to 2006. Observed belt use is also based on outboard front-seat occupants (age varies). The same information is presented graphically (Figure 1). Belt use data for each State for the years 2000 to 2006 are available in Appendix A (Observed Belt Use) and Appendix B (Belt Use Daytime Fatalities).

**Table 1. National Changes in Belt Use**

<b>Year</b>	<b>% Belted (Observed)</b>	<b>% Belted (Daytime FARS)</b>
1991	59%	33%
1992	62%	35%
1993	66%	39%
1994	67%	41%
1995	68%	42%
1996	68%	44%
1997	69%	44%
1998	69%	46%
1999	67%	45%
2000	71%	47%
2001	73%	48%
2002	75%	49%
2003	79%	51%
2004	80%	52%
2005	82%	52%
2006	81%	52%

**Figure 1. Changes in Belt Use, 1991-2006**



The substantial rise in belt use that coincided with 2000-2006 *Click It or Ticket* programs is surely due to multiple factors. The separate contribution of enforcement programs cannot be isolated, but it is notable that the major gains took place during the early 2000s when national penetration of the programs was limited. However, enhanced enforcement clearly had a role. In the 2000 South Carolina program, statewide observed belt use increased from 66.5% to 73.9%, much more of an increase than in neighboring States during this time period. In three South Carolina counties in which surveys were done just before and just after the enforcement phase, observed belt use rates increased from 65.4% to 78.9%. In the 8-State program in 2001, observed belt use rates increased substantially in all States, from 4 points in North Carolina to 20 in Tennessee. Region-wide, the average increase in belt use was about 9%.

During the 2002 Mobilization, in the 10 States that had “full implementation” of media and enforcement the average observed seat belt use increased 8.6 percentage points, from 68.5% to 77.1%. In the 4 “partial implementation” States (less media, less enforcement), seat belt use rose an average of 2.7 percentage points; in 4 States with no media and similar enforcement as in the “full implementation” States, seat belt use increased only 0.5 percentage points. This illustrates the necessity of combining media and enforcement rather than relying on either alone.

Once the national programs began in 2003, there were no more studies comparing States with and without enforcement programs. However, many States have conducted small-scale surveys (just before and just after enforcement) that illustrate the power of enforcement programs in producing spurts in belt use. A mini-survey, which can be completed in a few days’ time, uses a representative subset of observation sites from a larger statewide survey, which normally take weeks to complete. Data from selected States that have such data available are presented in Table 2. All data are based on outboard front-seat occupants of passenger vehicles. States that had pre- and post-mobilization data available for at least three years were selected for inclusion. The data illustrate the “saw blade” pattern characteristic of high-visibility enforcement mobilization: a noticeable increase right after enforcement followed by a drop and another rise, with each wave being incrementally higher than the last. It is interesting to note that the three States with the highest belt use rates (Alabama, Connecticut, and North Carolina) were primary States throughout the

period reviewed. These three States show a pattern particularly similar to the nationwide rates, with belt use rates slowing their advance, only to peak in 2005 and 2006. Nationwide, belt use in fatalities were at their highest in 2004 to 2006 but remained unchanged during this period.

**Table 2. Observed Seat Belt Use Pre- and Post-CIOT\* – Select States**

State	Primary Law Effective^	2001		2002		2003		2004		2005		2006	
		Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Alabama	12/9/1999	68%	76%	70%	79%	n/a	77%	n/a	80%	81%	86%	82%	85%
Connecticut	1/1/1986	n/a	78%	n/a	78%	65%	78%	79%	83%	73%	82%	n/a	84%
Florida	Secondary	61%	69%	67%	75%	n/a	73%	n/a	76%	76%	75%	n/a	81%
Mississippi	5/27/2006	49%	62%	54%	62%	n/a	62%	n/a	63%	62%	64%	66%	76%
North Carolina	10/1/1985	80%	83%	n/a	84%	n/a	86%	n/a	86%	89%	90%	90%	91%
South Carolina	12/9/2005	65%	70%	n/a	66%	n/a	73%	n/a	66%	70%	72%	74%	76%
Tennessee	7/1/2004	53%	69%	n/a	67%	n/a	69%	n/a	72%	77%	77%	80%	82%

\*Except in CT, data from 2005 and 2006 were obtained from observations done as part of demonstration programs

^Source: Insurance Institute for Highway Safety <http://iihs.org/laws/SafetyBeltUse.aspx>

Thus, over the course of the 2000 to 2006 period, nationwide observed belt use increased in the early 1990s, and then stagnated between 66 and 69% in the years 1993-1999. Belt use began to rise again in 2000 and increased each year from 2001 to 2005, peaking at 82% before declining slightly to 81% in 2006. Belt use among occupant fatalities showed the same rise in the early 1990s, with little change in the years 1996 to 1999, and a gradual rise in the 2000s, peaking at 52% and remaining at that level from 2004 to 2006.

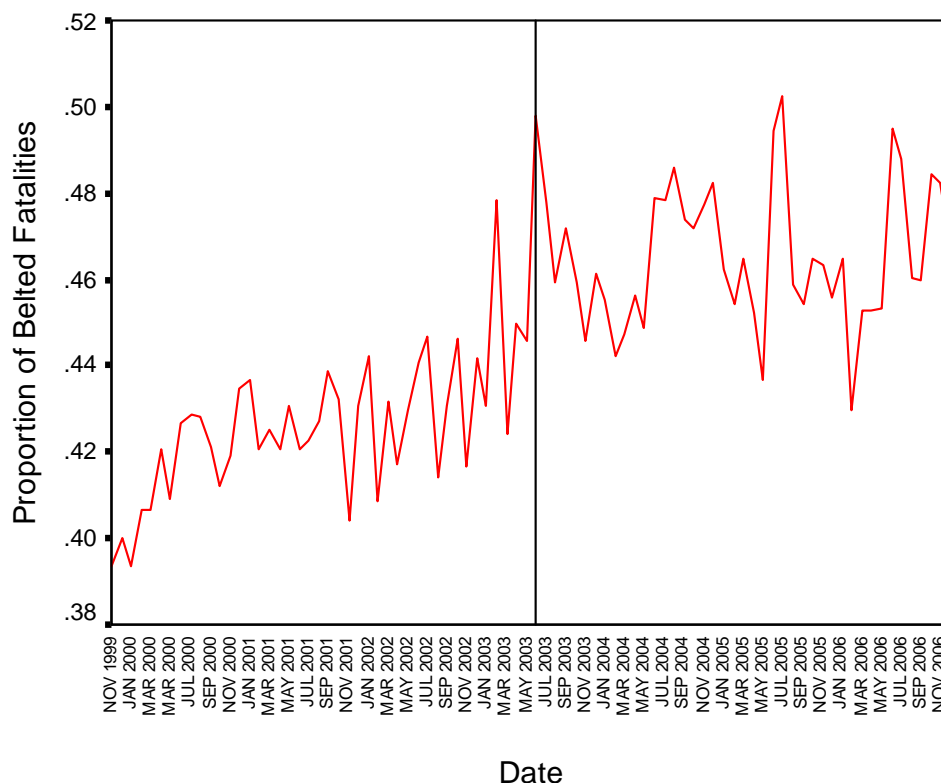
NHTSA (2005) estimates that for “each percentage point increase in seat belt use, an additional 2.8 million people are buckled up, and about 270 lives are saved.” In the seven years since the CIOT program began (2000 to 2006), observed belt use increased by 10 percentage points (71% to 81%), thus approximating 2,700 lives saved. A National Cooperative Highway Research Program report (Preusser et al, 2008) estimates that for each front-seat occupant fatal injury, there are 156 non-fatal injuries; highway loss estimates are \$1.1 million for each fatal injury and an average of \$28.7 thousand per non-fatal injury (in 2006 dollars). Had belt use remained at the 2000 level, a modest estimate of the savings associated with that 10-point increase in belt use is in the range of \$15.1 billion (saving approximately 2,700 lives and close to 422,000 injuries).

## National FARS Analyses

Figure 2 shows the monthly proportion of belt use for fatalities from November 1999 to December 2006 for front-seat outboard occupants 15 and older. ARIMA analyses indicated that there was a significant increase in the proportion of belted fatal occupants in the 43-month period following the first nationwide (2003) *Click It or Ticket* campaign compared to what would have been expected from the trend of the preceding 43 months.

Using a period of 43 months from before the program implementation (November 1999 to May 2003), and 43 months after the program implementation (June 2003 to December 2006), allowed the maximum data during the follow-up period.

**Figure 2. Proportion Belted per Month, 1999-2006 (FARS)**



Analyses were conducted on the proportion belted in each of the 86 months. A simple two-sample T-test was run comparing the 43 months before implementation to the 43 months following. The results indicate that there was a significantly higher mean proportion of belted after the CIOT campaign ( $M = 47\%$ ) than before CIOT ( $M = 43\%$ ) ( $t(84) = -11.227, p < 0.001$ ).

An ARIMA time series analysis was conducted confirming that the results of the t-test were not due simply to a pre-existing increasing trend in belt use. Using the model (1,0,1) (1,0,0) to control for systematic fluctuations in the data series produced a significant effect of the implementation of the CIOT campaign. The ARIMA estimated a 3.8-percentage-point monthly increase in seat belt use among fatally injured 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 C).

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.



## NATIONAL TRENDS IN MEDIA AND ENFORCEMENT, 2000-2006

Media and enforcement are the “twin engines” that drive seat belt programs, necessary in combination to achieve maximum success. It is difficult to summarize the yearly and total amounts of media and enforcement that took place from 2000 through 2006. Within the *Click It or Ticket* programs, there was incomplete reporting, sometimes inconsistent reporting over time, and in some cases different styles of reporting among States (available data, by State, is shown in Appendix D for Media and Appendix E for enforcement, for years 2000 to 2006). Moreover, since the first nationwide mobilization started in 2003, the majority of States only have data available for the years 2003 to 2006. With these considerations, Table 3 provides a rough estimate of media and enforcement in the *Click It or Ticket* programs over the years 2000 to 2006 in participating jurisdictions. Note: Table 3 does not report all the enforcement activity that occurred during these years. In the early 2000s, law enforcement agencies in many States were conducting mobilizations in May and November. The numbers of tickets issued in these efforts is not documented. Also not included are tickets issued in routine patrol activities, outside of special programs.

**Table 3. Media Dollars Spent and Citations Issued**

Year	# Jurisdictions	Dollars	Dollars per Capita	Citations	Citations per 10,000 Pop.
2000	1	\$500,000	\$0.12	19,815	49
2001	8	\$3,558,000	\$0.06	119,805	21
2002	18	\$8,153,730	\$0.08	250,630	22
2003	45	\$23,700,000	\$0.09	508,492	20
2004	51	\$30,000,000	\$0.10	657,305	22
2005	51	\$32,622,000	\$0.11	727,271	24
2006	51	\$25,898,584	\$0.09	697,115	23

The peak years for funding were 2004 and 2005, and then in 2006 there was a drop-off. The Federal buy was \$10 million in 2004, \$9.7 million in 2005, and \$9.2 million in 2006, so most of the drop was in State funding. In contrast, enforcement intensity has been relatively constant throughout 2001-2006, between 21 and 24 citations per 10,000 populations.

### Media

In the early years of the CIOT campaign, paid media expenditures were relatively modest. In the 2000 South Carolina campaign, approximately \$0.12 per capita was spent and every major media market in the State was targeted. In 2001, the campaign extended to the 8 States in Region IV (Southeast Region), and the paid media expenditures reached approximately \$3.6 million, or \$0.06 per capita. The *Click It or Ticket* slogan was used extensively in all 8 participating States. Furthermore, media buys (i.e., TV and radio spots) were strategically placed to reach at-risk population such as youth, pickup truck drivers, rural populations, minority groups, etc.

A similar strategy was used in 2002 and an estimated \$0.08 per capita was spent on participating States. The 2002 campaign consisted of three groups of States: 10 States with full implementation, 4 States with “other” implementation (full enforcement, but limited media), and 4 “comparison” States (enforcement without specific paid media advertisement). Nine of the 10 full implementation States, 3 of the “other”, and only 1 of the “comparison” States (New York) used the *Click It or Ticket* slogan. Given some States’ secondary law status, the use of the CIOT slogan was prohibited/judged improper in some jurisdictions.

In 2003, the first nationwide paid media campaign spent more than \$23 million on paid media (\$0.09 per capita). Extra efforts were taken to target advertisements to men 18 to 34. Indeed, TV network programming was bought on shows that men 18 to 34, including African-American and Hispanic men, were watching. These included *NASCAR's Coca-Cola 600*, *American Idol*, *Cops*, *Mr. Personality*, *Fear Factor*, *Dog Eat Dog*, *Law & Order SVU*, *Saturday Night Live*, *Conan O'Brien*, *Last Call with Carson Daly*, *Tonight Show*, *Everwood*, *Smallville*, *Jamie Kennedy*, *WB Movie of the Week*, *Charmed*, *Black Sash*, *WWF Smackdown*, *Buffy the Vampire Slayer*, *Twilight Zone*, *Platinum*, *Enterprise*, *UPN Move*, *Sportscenter*, *NHL Conference Playoffs*, *NBA*, *Major League Baseball*, *Auto Racing Weekend*, *Pardon the Interruption*, *MAAD Sports*, *Black Star Cinema*, *Comic View*, *Way We Do It*, *BET News*, *Top 25 Countdown*, *Real TV*, *Late Nite*, *Car & Driver*, *Prime Trucks*, *Horsepower TV*, *WWF*, *Seinfeld*, *Friends*, *Dawson's Creek*, *Drew Carey*, *X-Files*, *Law & Order*, *Heat Night Predator*, *NBA Playoffs*, *Novelas*, *Cristina Edición Especial*, *Cine de Estrellas*, *Gran Musical*, *Ver Par Cree*, *Mujer Casos – Vida Real* and *La Hora Pico*. Network radio programming was bought on *ESPN Morning Show*, *Tony Kornheiser Show*, *Dan Packard Show*, *NBA Playoffs*, *Major League Baseball*, *Doug Banks*, *Tom Joyner*, *Don & Mike*, *Tom Leykis*, *NHL Final*, *Gen X*, and *The Edge*.

The national television spot showed four different cars driving in a variety of locations (mountains, small towns, urban center, and near a beach) and officers in a variety of uniforms approaching the cars, with sirens and lights. The intent was to capture a variety of American locations. The narrative announced “*From coast to coast... starting May 19<sup>th</sup>... if you don't click it... expect a ticket. Cops write tickets because seat belts save lives. So click it... or ticket.*” The voice-over was accompanied by graphics of drivers reacting to getting a ticket, four drivers putting on their seat belts, and footage of crash test dummies (one belted, one unbelted). The last graphic showed the *Click It or Ticket* logo and sponsoring identification of the U.S. Department of Transportation. The television video was also produced in Spanish: “*De costa a costa..... empezando el 19 de mayo..... si no se abrocha el cinturón... le daran una multa. La policía impone multas porque los cinturones de seguridad salvan vidas. Así qu abrochado ...o multado.*”

A 30-second national radio advertisement used the voice of a male in his 20s with music throughout: “*All right, everybody knows ‘seat belts save lives,’ I mean we’ve been hearing that for years – I’m just tellin’ ya your seat belt can save your money and a whole lot of hassle too. Because from coast to coast, cops are cracking down. They have this whole...campaign – ‘Click It or Ticket.’ Pretty simple, you buckle up...or you pay up. Consider this a friendly warning, because cops won’t be giving warnings. Remember, Click It...or Ticket. DISCLAIMER: Paid for by the U.S. Department of Transportation and National Highway Traffic Safety Administration.*” The Spanish version played Latin music throughout: “*Bien, todos saben que “los cinturones de seguridad salvan vidas”. Yo solo les digo que el cinturón de seguridad puede ahórrales dinero y un montón de problemas también. La policía tiene una campaña – “Abrochado o Multado”. Es super sencillo, se abrochan el cinturón o pagan la multa. Consideren est une advertencia amigable, porque la policía no va a estar dando advertencias. Recuerden, Abrochado o Multado. DISCLAIMER: Patrocinado por el Departamento de Transporte.*”

In 2004 and 2005, the paid media campaign used similar strategies to target males 18 to 34, teens, and young adults. NHTSA and the States spent at least \$30 million on paid media each year, equating \$0.10 per capita in 2004 and \$0.11 per capita in 2005. However, it is notable that during the nationwide programs, some States resisted or forbid the *Click It or Ticket* slogan since they judged it improper given their current seat belt use law. For instance, Idaho has never used *Click It or Ticket* as a campaign slogan due to widespread belief that a solely enforcement-based

slogan would be ineffective in a secondary law State. Instead, Idaho used the slogan *Click It Don't Risk It* as an alternate.

The 2006 media campaign included the usual two weeks of paid media, consisting of targeted television and radio advertisements, newsprints and billboards. Radio and TV advertisements aired extensively and at strategic times during shows that attracted target audiences, primarily adult males 18 to 34. Other targets of interest were pickup drivers 18 to 34, as well as Hispanic and African-American males 18 to 34. The national media buy consisted of 45% broadcast television, 25% cable television, 15% radio, 10% to Hispanic media, and 5% alternative media. Examples of television purchases that attract the target audience include; the *Indy Time Trials* and the *Indy 500 Race*, *CSI: Miami*; *Comedy Central*, *Two and a Half Men*, *Baseball Tonight*, *ESPN Sports Center*, *Poker*, *Mike & Mike*, *the Simpsons*, *Cops*, *America's Most Wanted*, *NASCAR Prime*, *MTV* and *MTV2*, *Conan O'Brian*, *Tonight Show*, *Law & Order SVU*, *Movie of the Week*, *Las Vegas*, *NHL Finals*, *ER*, *Noticiero Univision*, *Novelas*, *Veronica Mars*, *Smackdown*, and *UPN Movie Night*, among many others. Examples of alternative media include video-game advertising and Internet advertising on specific sites, such as [www.NASCAR.com](http://www.NASCAR.com).

NHTSA developed radio and television media and implemented the nationwide placement of television and radio advertisements. States implemented local purchases at their own discretion, unlike previous years' mobilizations where NHTSA had greater oversight in mobilization advertisement purchases. The 30-second television advertisement that NHTSA used clearly indicated to the viewer that police would issue tickets for not wearing seat belts. The advertisement showed young adult males of differing races in a variety of settings (e.g., urban, suburban, and rural locations). The advertisement's narrator indicates that, all across America, police are stepping up seat belt enforcement (for advertisement storyboard and other creative material, see Appendix F).

The media campaign developed several radio spots of differing time lengths (5, 10, 15, and 30 seconds) in English and Spanish. All the radio spots had an enforcement-centered message. Several radio scripts are in Appendix F.

A variety of poster and billboard advertisement art were also developed, all of which carried an enforcement-centered message (see Appendix F).

### **Earned Media**

In addition to the paid media, the States' earned media typically started two weeks prior to the start of the enforcement, and continued for the duration of the program and beyond. States generally ask community level participants to report on the number of TV, radio, and print news stories publicized. Table 4 shows a summary of earned media information as reported by the States, for years 2003 (the first nationwide program) through 2006. It should be noted that there was some confusion on exactly what to report, especially in the early years of mobilization reporting. For instance, the number reported for TV news in 2004 is most likely an anomaly. Thus, the totals in this table must be considered with extreme caution given the lack of standardization in capturing earned media data.

**Table 4. Earned Media Activity, 2003 to 2006**

<b>Earned Media</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
Press Conferences	234	265	358	966
TV News	3,636	119,799	3,873	5,567
Radio News	1,981	2,114	12,556	3,717
Print News	3,851	3,056	4,965	4,272

## Enforcement

The number of seat belt citations that the police issued during the CIOT program was one of the few enforcement activities reported every year. Reports on hours worked, numbers of checkpoints, and number of participating law enforcement, were also available, albeit often incomplete. Agencies' reports have been sporadic, especially in the early years of the program. Once the program became national, reporting of activities was somewhat better but still far from ideal. As such, this section includes data reported between 2003 and 2006.

The number of law enforcement agencies participating in the CIOT mobilizations changed slightly over time (Table 5). Some 10,506 agencies participated in 2003, with 68% of agencies reporting. The number of participating agencies increased to 13,173 in 2004, with the %-reporting going down to 57%. In 2005, the number of participants was lower at 9,761, but 80% reported on their activity. The number of participating agencies topped starting level in 2006 with 10,623 agencies participating and reporting reached a high of 83%. Thus, although the number of participating agencies fluctuated over the 2003-2006 period, the percentage of agencies actually reporting their activity showed a near-constant increase from year to year.

Between 2003 and 2006, law enforcement agencies reported more than 1.7 million hours worked on the CIOT mobilizations, and included more than 34,000 checkpoints. During this period, police issued more than 2.5 million seat belt citations and close to 129,000 child restraint violations. Police also issued a large number of speeding tickets during the mobilization – over 1.6 million speeding citations between 2003 and 2006 – and more than 99,000 DWI arrests (see Table 5). Because a number of States failed to report their data each year, the data reported in Table 5 under-reports the actual figures.

**Table 5. Enforcement Activity, 2003 to 2006**

<b>Enforcement Activity</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>Total</b>
Participating LE Agencies	10,506	13,173	9,761	10,623	44,063
Reporting LE Agencies	7,125	7,515	7,763	8,793	31,196
Total Hours Worked	580,361	546,871	n/a	617,990	1,745,222
Number of Checkpoints	13,875	13,856	n/a	6,714	34,445
Seat Belt Citations	508,492	657,305	727,271	697,115	2,590,183
Child Passenger Citations	27,563	33,965	32,973	34,398	128,899
DWI Arrests	22,420	28,186	25,937	22,543	99,086
Speeding	314,012	448,672	437,568	429,738	1,629,990

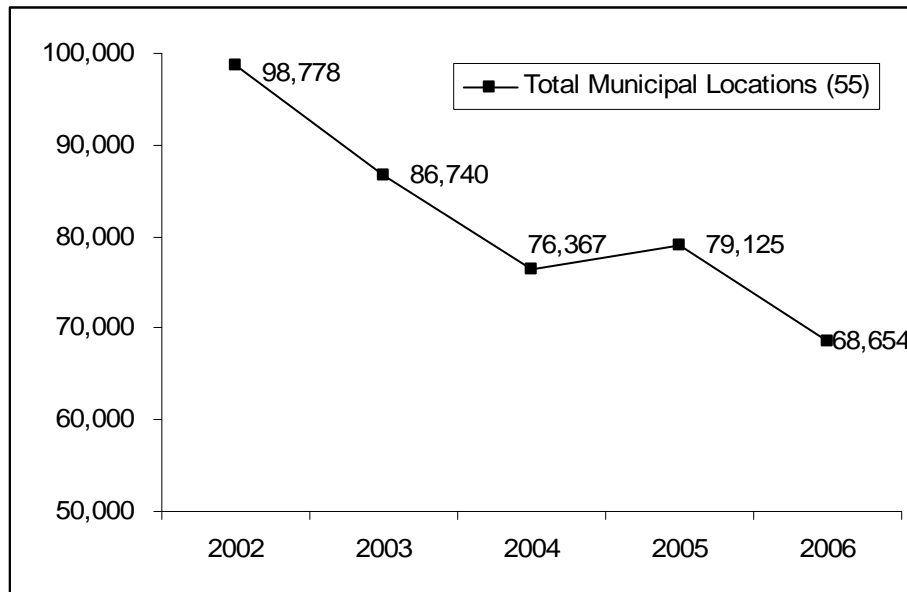
## **Law Enforcement Agency Sample, 2002-2006**

A stratified random sample of municipal and State law enforcement agencies was drawn to track seat belt enforcement citations between 2002 through 2006. The sample included communities of various sizes in primary and secondary law States from all NHTSA Regions.

**Municipal Agency Enforcement:** The municipal sampling process included random selection of one primary law and one secondary law location from each of the 10 NHTSA Regions (2 cities \* 10 NHTSA Regions = 20) and stratified by four categories of city size: (1) <50K; (2) 50K to 100K; (3) 100K to 250K; (4) >250K. As such, the planned sample was to include 80 sites. Municipal police departments serving the cities randomly chosen for the sample were contacted and a request was made for monthly totals of citations issued for non-compliance with the adult seat belt law, for the period 2002 through 2006. Multiple attempts were made to collect citation data from contacts in the sample cities. Agencies were given ample time to return calls and fulfill the request. Some cities took little time to fulfill the request; others took several weeks. Some cities failed to provide information, either because they ignored the request or were unable to provide the information (the information was not available or there was no system in place for easily providing the information). Those cities that did not or could not fulfill the requests for data were replaced with other randomly chosen cities. More than 200 municipal agencies were contacted, 82 of which were able to provide information in response to requests for seat belt citation data. Fifty-five municipal law enforcement agencies provided complete annual information for all five years requested; 38 were able to provide complete month-by-month information for all five years. Data presented in Figures 3, 4, and 5 are based on the same 55 municipal agencies.

The annual seat belt citations issued by the sample of municipal agencies is graphed in Figure 3. From 2002 to 2006, there was a downward trend in the number of seat belt citations issued. The number of tickets dropped 30% from 98,778 in 2002 to 68,654 in 2006.

**Figure 3. Number of Seat Belt Citations Issued by Year, Municipal Agencies**



Both primary law and secondary law locations contributed to the decline in seat belt citations issued (Figure 4). Primary law locations ticketing decreased 34% and secondary law locations decreased 23% between 2002 and 2006.

**Figure 4. Number of Seat Belt Citations Issued by Type of Law and Year, Municipal Agencies**

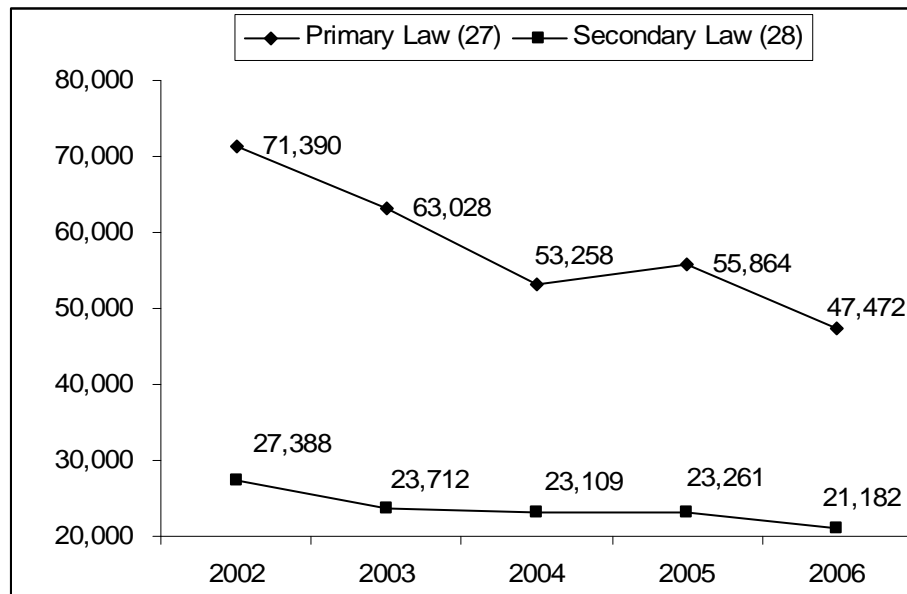
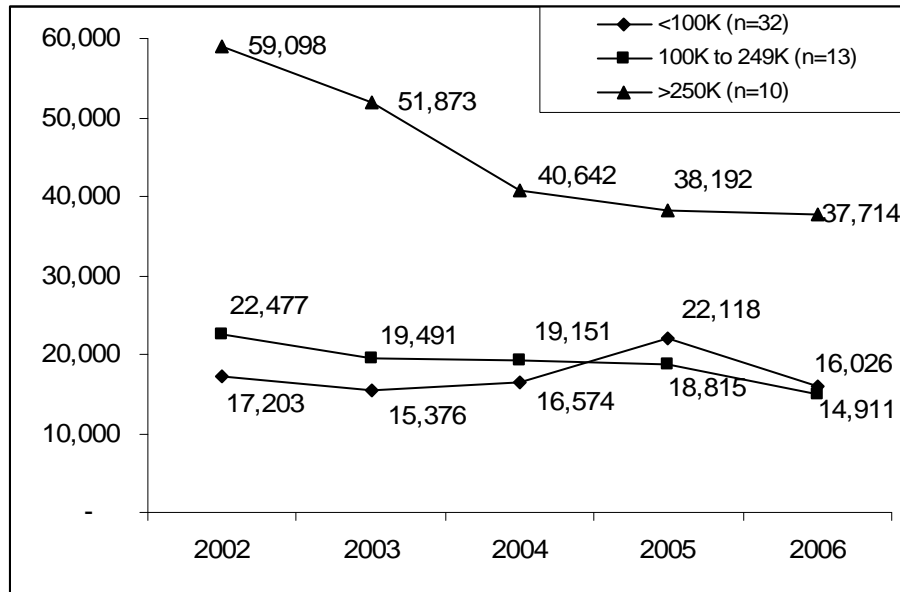


Figure 5 displays the number of tickets issued per year for municipal agencies representing communities of different sizes. Ticketing levels over time have remained relatively level for law enforcement agencies serving communities with less than 100k population. Law enforcement agencies serving larger populations indicated a decline in ticketing from 2002 through 2006. All size categories reported issuing fewer tickets in 2006 than in 2005. This decrease was significant for mid-size departments only (paired t-test,  $p < .05$ ). Moreover, the average number of seat belt

tickets issued between 2002 and 2005 was higher than the number of citations in 2006. This decrease was significant ( $p < .05$ ) in both mid-size and large departments. There were no significant changes for small departments.

**Figure 5. Number of Seat Belt Citations Issued per Year, Municipal Agencies 2002-2006**



Thirty-eight municipal law enforcement agencies provided counts of tickets issued per month. Figure 6 shows the total number of tickets issued per month for the years 2002 through 2006. In general, seat belt ticketing declined over time and was most common during May. This is not surprising given the level of planning, coordination, and recruitment put into May Mobilizations. Noticeable spikes in ticketing also occurred around November and December during years 2003, 2004, and 2005 and around September 2006. These months can also be associated with significant special enforcement efforts organized at the national level by NHTSA, facilitated by the State Highway Safety Offices, and carried out by thousands of local law enforcement agencies like those represented in the graph below. Conversely, the number of tickets issued was typically at its lowest level during mid-winter (i.e., February).

**Figure 6. Seat Belt Citations Issued per Month, Municipal Agencies 2002 - 2006**

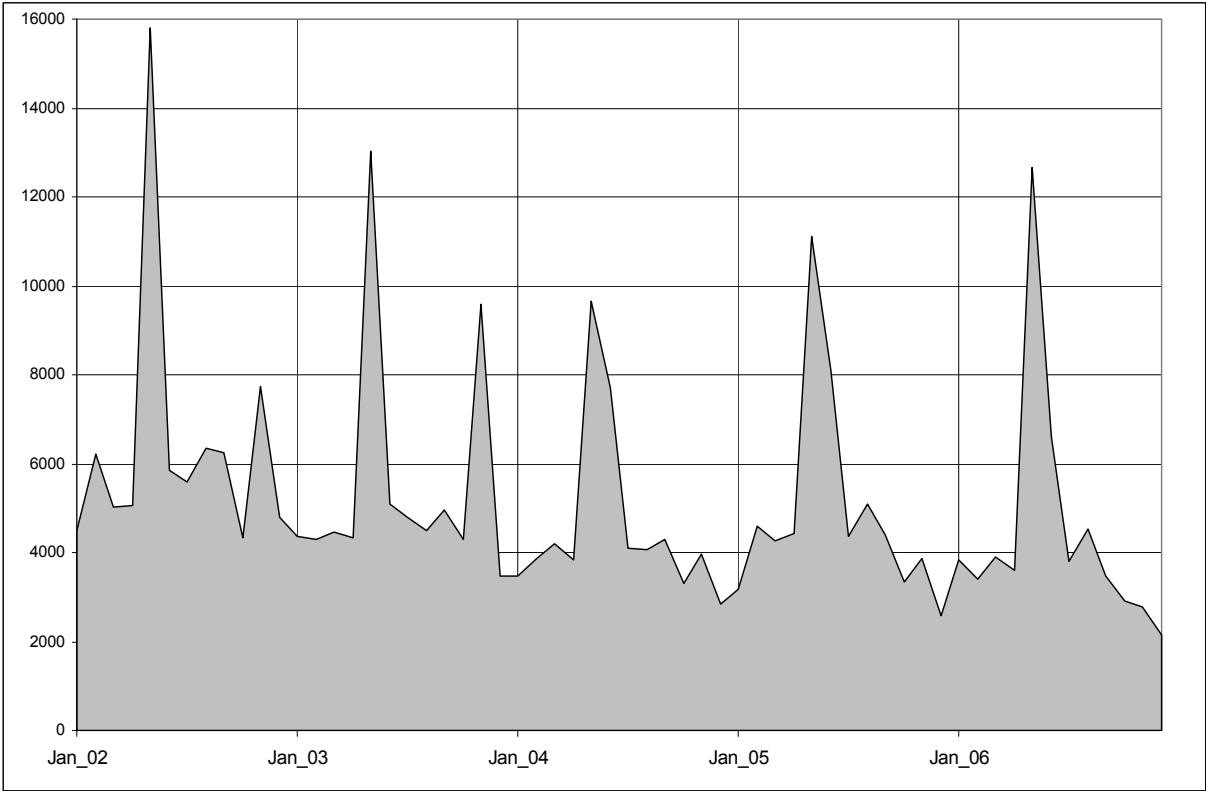
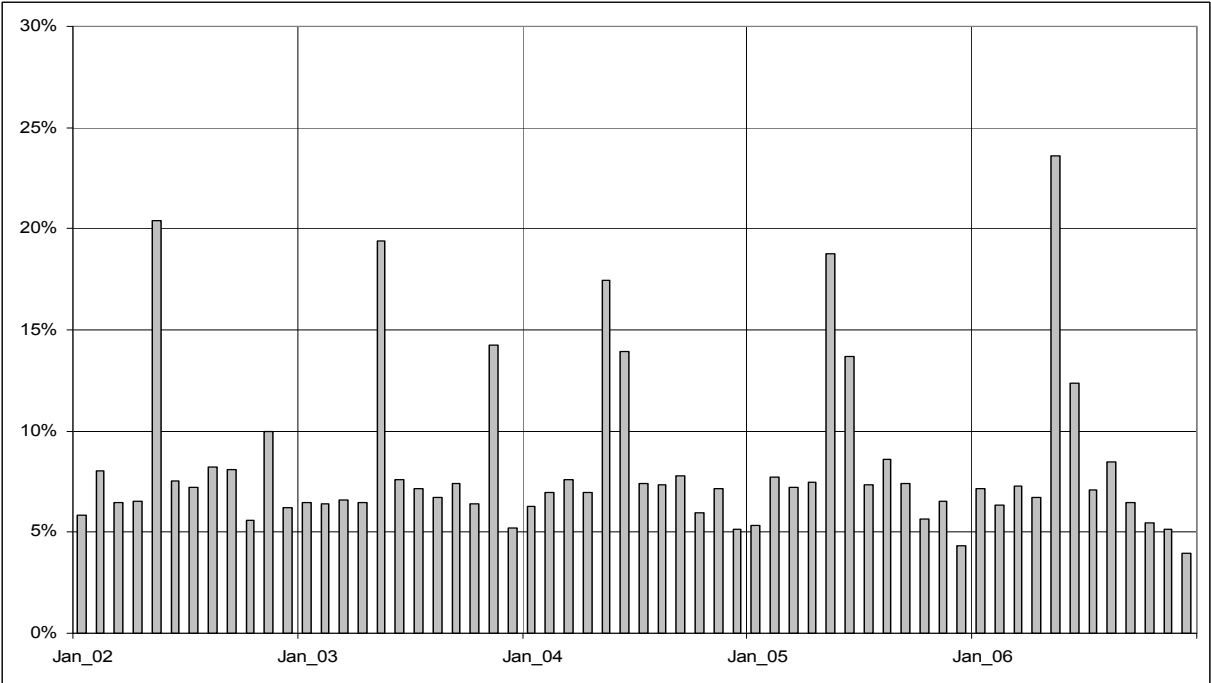


Figure 7 shows the proportional distribution of seat belt tickets issued by month each year 2002 - 2006. Clearly, May and June have the highest distribution of seat belt tickets and that is due to Mobilization enforcement. The graph shows that two to three times the normal distribution of ticketing occurs during May.

**Figure 7. Proportion of Seat Belt Ticketing per Month of Year, Municipal Agencies 2002 2006**



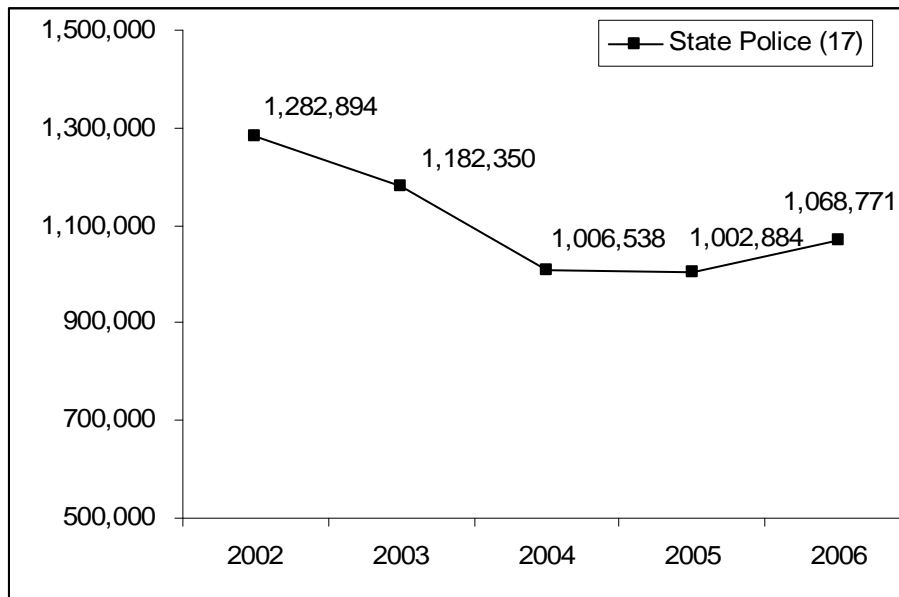


**State Police Enforcement:** A random sample of 17 State law enforcement agencies provided annual counts of seat belt citations for 2002 through 2006. This included 7 State agencies operating under primary enforcement laws in 2006 and 10 operating under a secondary enforcement law.

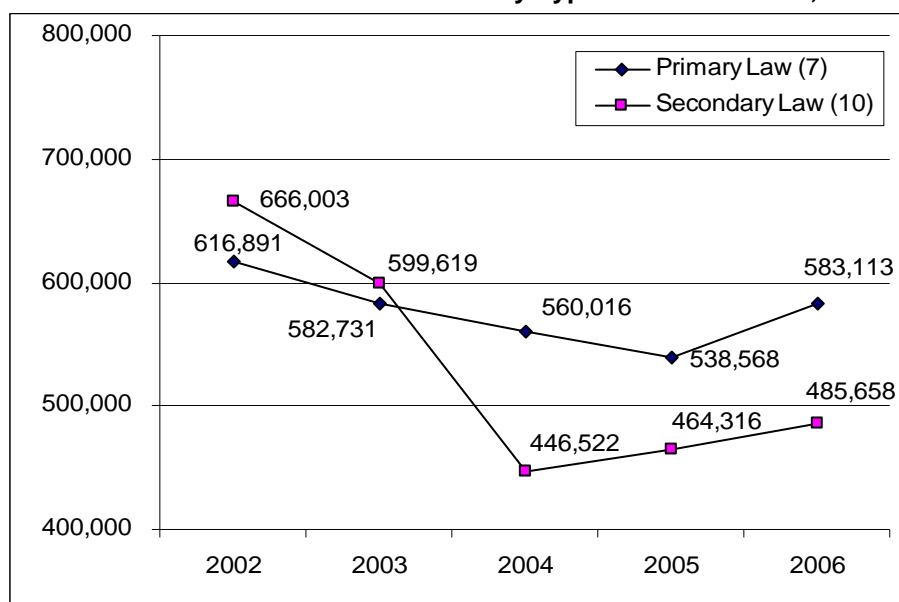
The annual seat belt citations issued by the State agencies are shown in Figure 8. From 2002 to 2004, there was a downward trend in the number of seat belt citations issued, representing a 22-percent decrease. After 2004, ticketing did not decrease any further but remained lower compared to 2002 and 2003. The decrease in the number of tickets the State police issued between 2002 and 2004 was much greater in secondary law States compared to primary law States (33% versus 9% - see Figure 9). A decrease in ticketing continued in the primary law States until 2005. Both primary and secondary law States experienced an increase in ticketing between 2005 and 2006.

States with populations less than 6 million showed no significant decreases in ticketing over time. In contrast, States with populations over 6 million showed a significant decrease (paired t-test,  $p=.014$ ) between the average of 2002-2005 and year 2006, and no difference between 2005 and 2006.

**Figure 8. Number of Seat Belt Citations Issued by Year, State Agencies**



**Figure 9. Number of Seat Belt Citations Issued by Type of Law and Year, State Agencies**



## NATIONAL TRENDS IN ATTITUDE AND AWARENESS

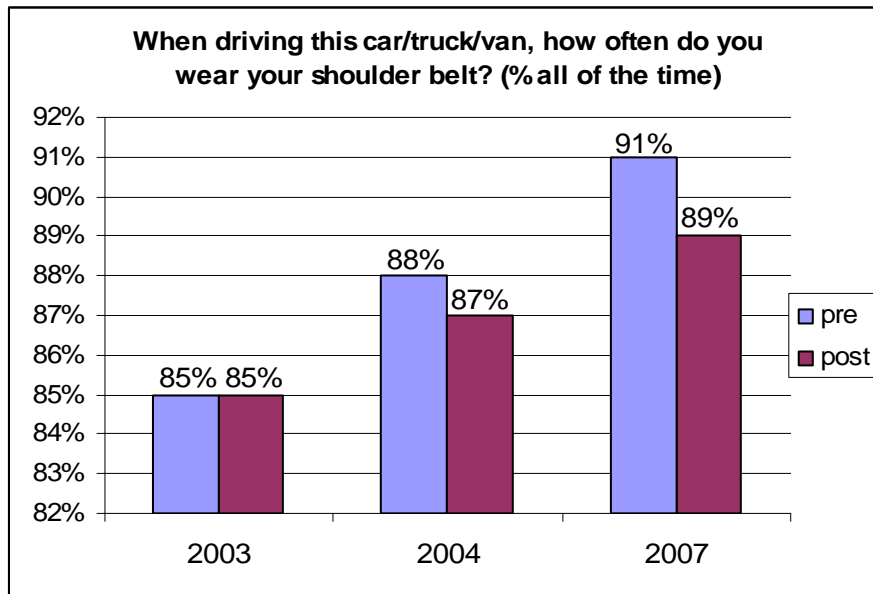
Telephone surveys were conducted nationwide, before and after the May Mobilization, in 2003, 2004, and 2007. Data from the surveys were used to examine changes/trends in attitudes and awareness of belt use and belt use enforcement. The survey results can be summarized on three categories of questions: attitudes toward belt use, perception of enforcement severity, attitudes toward enforcement, and media awareness.

### Attitude Toward Seat Belt Use

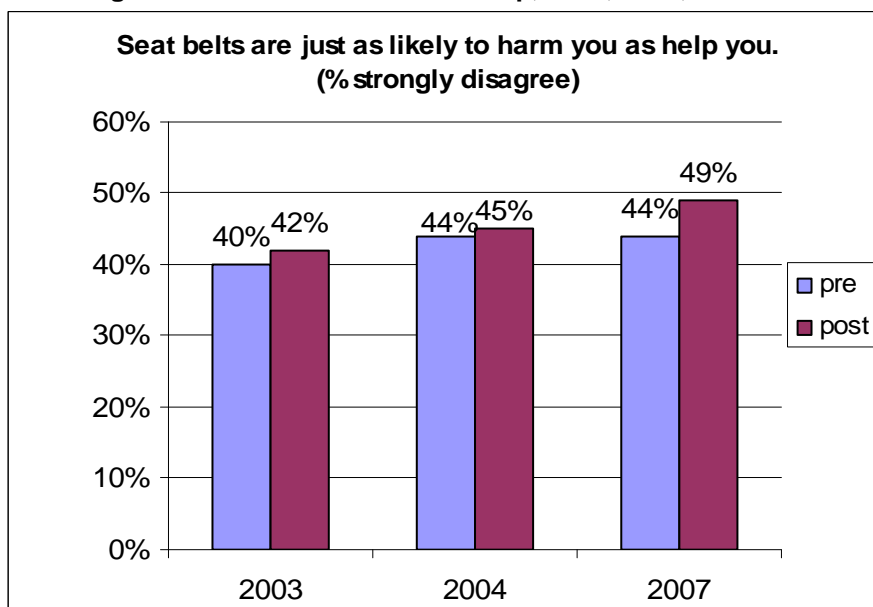
The first category of questions assessed respondents' attitudes toward belt use. Individuals whose primary vehicles have shoulder belts were asked to report on their frequency of belt use. The differences from pre- to post-CIOT mobilizations were minimal but, as Figure 10 indicates, self-reported usage increased over time. Proportion of drivers who reported *always* wearing their shoulder belts averaged at 85% in 2003 and increased to an average of 90% by 2007.

Other questions inquired on people's beliefs about seat belts. Individuals were asked to indicate their level of agreement or disagreement with a series of statements. Across time, there was increasing disagreement with the statement *Seat belts are just as likely to harm you as help you* (Figure 11). An average of 41% *strongly disagreed* with the statement in 2003, 45% in 2004, and reaching an average of 47% in 2007. The proportion of respondents who would *want their seat belt on* in case of an accident were high (at least 84%) throughout the period, and increased over time (from an average of 86% in 2003 to an average of 89% in 2007, see Figure 12). The proportion of respondents who *strongly disagreed* with the statement *Putting on a seat belt makes me worry more about being in an accident* remained stable over time, with an average of 69% in 2003 and 2004 and 70% in 2007 (Figure 13). These data suggest that in addition to increasing belt use, attitudes toward belt use have also become increasingly positive over the course of the first years of the *Click It or Ticket* mobilizations.

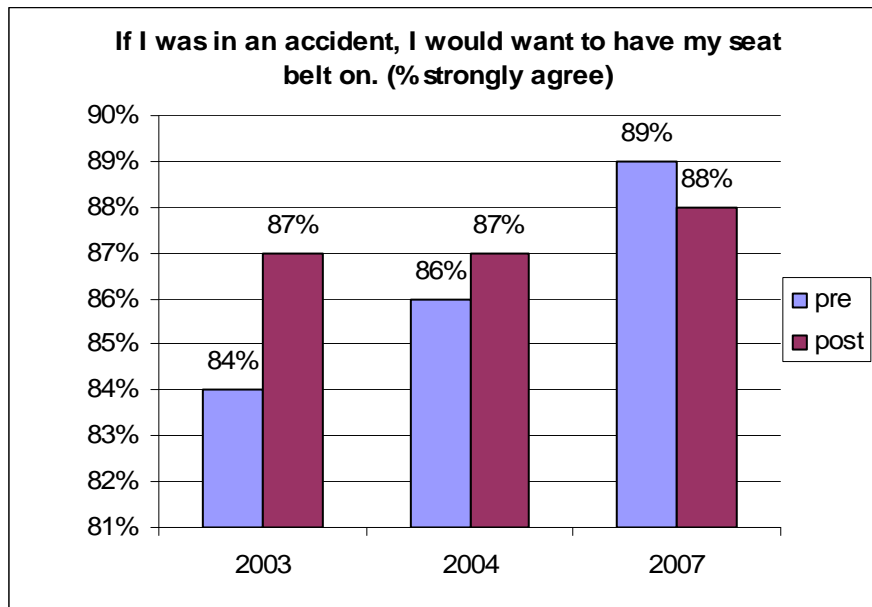
**Figure 10. Self-Reported Belt Use, 2003, 2004, and 2007**



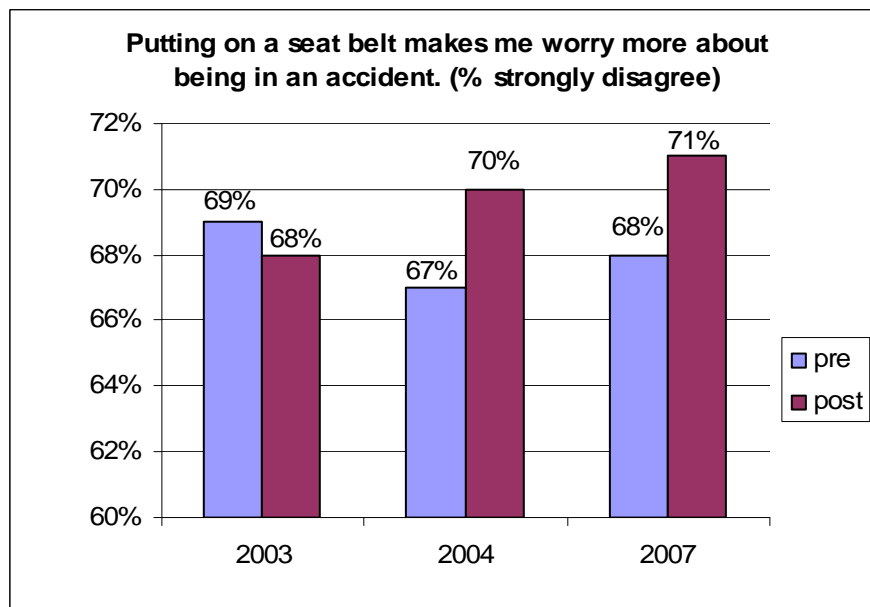
**Figure 11. Seat Belts: Harm or Help, 2003, 2004, and 2007**



**Figure 12. Want Belt in Case of Accident (% Strongly Agree), 2003, 2004, and 2007**



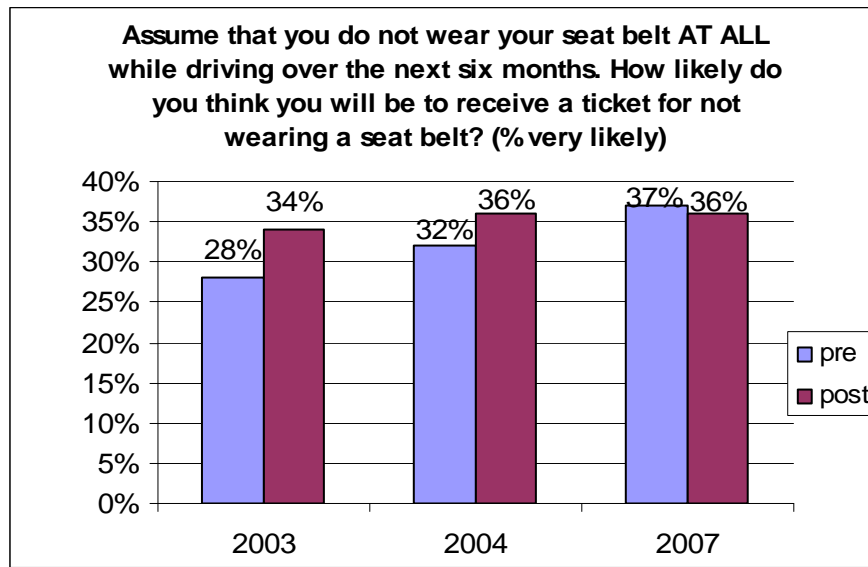
**Figure 13. Seat Belts – Worry About Accident, 2003, 2004, and 2007**



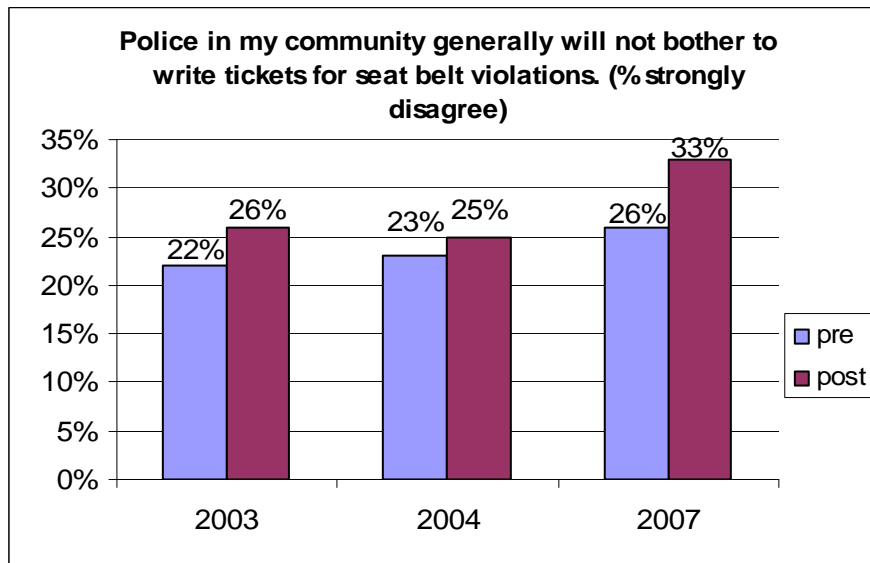
### **Perception of Enforcement Severity**

The perceived risk of receiving a ticket for nonuse of a seat belt was also assessed. When asked how likely they would be to receive a ticket for nonuse if they would go unbelted for 6 months, more than 30% responded that they would *very likely* be ticketed. This percentage went from an average of 31% in 2003 to an average of 37% in 2007 (Figure 14). The proportion of respondents who *strongly disagreed* with the Statement *Police in my community generally will not bother to write tickets for seat belt violations* increased from an average of 24% in 2003 to an average of 30% in 2007 (Figure 15).

**Figure 14. Risk of Being Ticketed for Nonuse, 2003, 2004, and 2007**



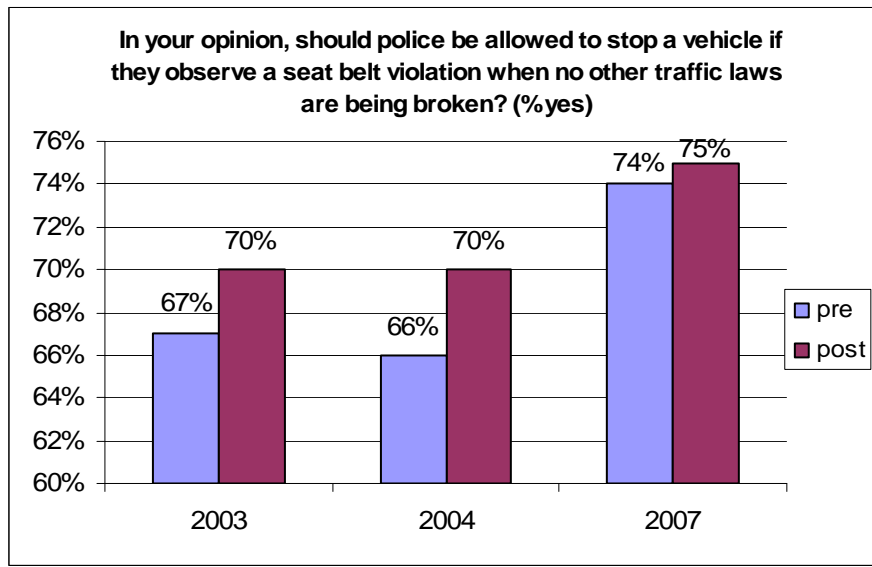
**Figure 15. Police Don't Bother Ticketing for Nonuse, 2003, 2004, and 2007**



### **Attitude toward Seat Belt Enforcement**

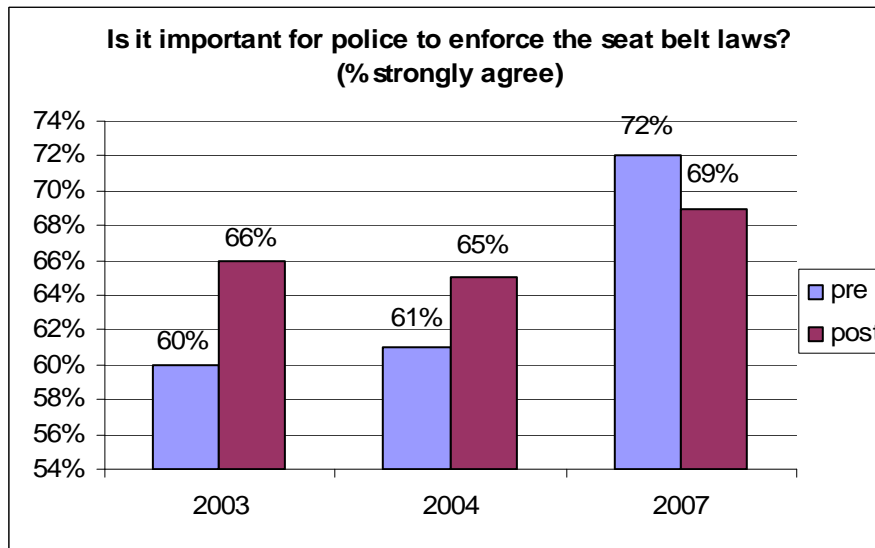
Support for belt use laws and enforcement of belt use laws has increased over the course of the past few years of CIOT mobilizations. For instance, support for a primary law has gone from an average of 69% in 2003 to 75% in 2007 (Figure 16).

**Figure 16. Support for Primary Law, 2003, 2004, and 2007**

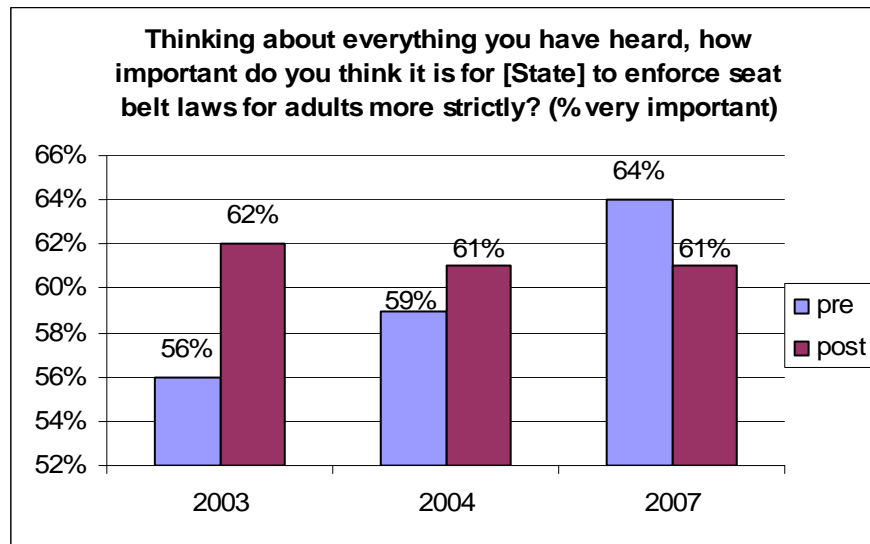


When asked if it was *important for police to enforce seat belt laws*, an average of 63% *strongly agreed* in 2003 and 2004. This proportion increased to 71% in 2007 (Figure 17). Furthermore, when asked how important it was to *strictly enforce* seat belt laws, results indicated a slow but steady increase in percentage of respondents judging the issue *very important* (Figure 18).

**Figure 17. Important to Enforce Seat Belt Law, 2003, 2004, and 2007**



**Figure 18. Importance of Strict Enforcement of Seat Belt Law, 2003, 2004, and 2007**

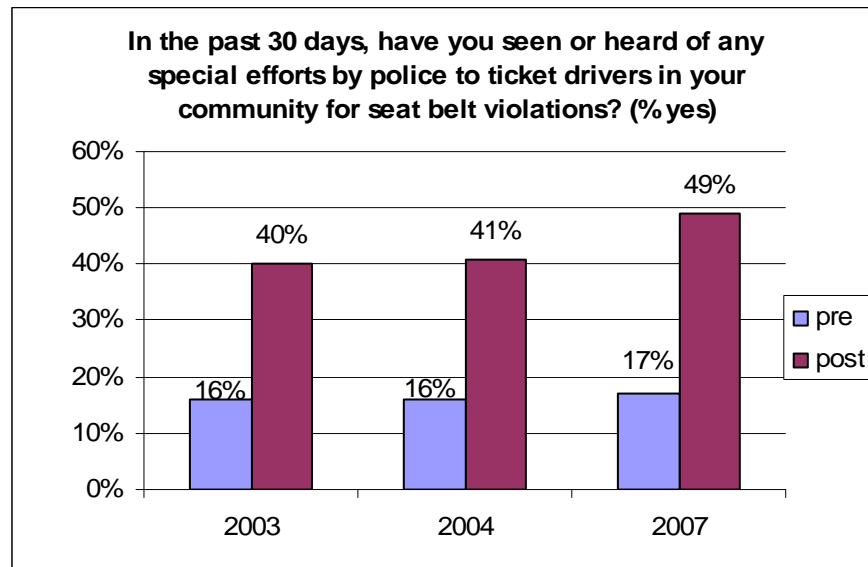


### **Awareness of Media and Enforcement**

The telephone surveys included questions exploring awareness of media and enforcement. These questions explored issues such as awareness of belt message and of special efforts directed at belt enforcement, source and nature of those messages, as well as familiarity with a variety of traffic safety oriented slogans, particularly *Click It or Ticket*.

Awareness of *special efforts* by police to ticket drivers for not using their seat belts increased dramatically from pre- to post-CIOT mobilization in each year surveyed. The post measure of awareness in the year 2007 was the highest (by at least 8 percentage point) of the available measures (Figure 19). When asked to indicate where they had seen or heard about special efforts, the most popular answer – by far – was *television*. In the post measure, approximately 50% of respondents indicated *TV* as the source of information; the second most popular answer was *radio*, which hovered between 20 and 25% (See Table 6 for detailed set of data).

**Figure 19. Awareness of Special Efforts, 2003, 2004, and 2007**



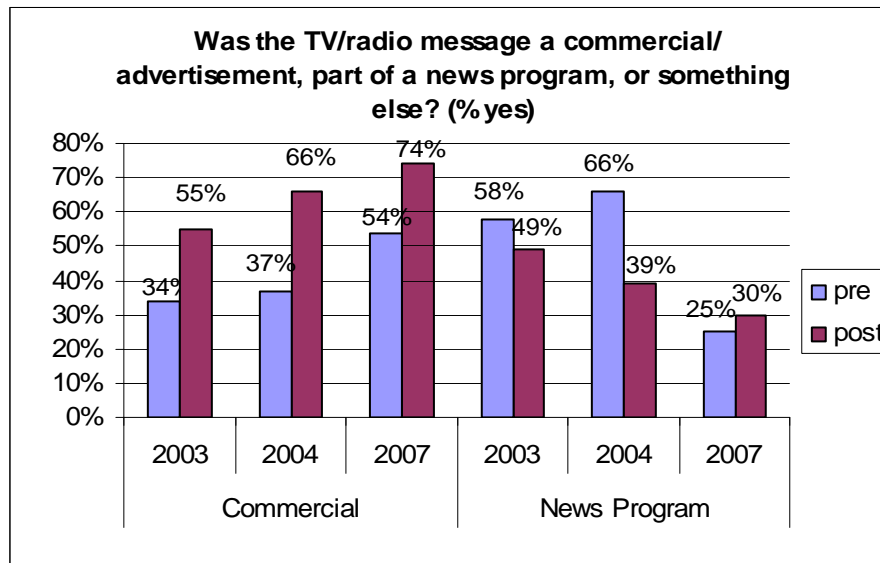
**Table 6. Source of Special Effort Information, 2003, 2004, and 2007**

Where did you see or hear about that special effort?						
	2003		2004		2007	
	Pre	Post	Pre	Post	Pre	Post
Billboard/sign	11%	13%	5%	14%	15%	22%
Observed	23%	13%	14%	14%	12%	9%
Newspaper	22%	14%	18%	15%	21%	12%
Friend	9%	10%	10%	7%	11%	7%
Radio	11%	20%	17%	25%	15%	25%
TV	28%	50%	38%	49%	41%	53%

Participants were asked about the nature of the source of information, specifically whether the special effort message was a commercial/advertisement or whether they had seen/heard it as part of a news program. In all three years surveyed, there was an increase from pre to post in percentage of respondents indicating *commercial/advertisement* as the source of information. Responses to *news program* showed the opposite pattern in 2003 and 2004, but not in 2007 (Figure 20). Overall, the proportion of respondents indicating *news program* as a source of information was much lower in 2007 than in previous years.

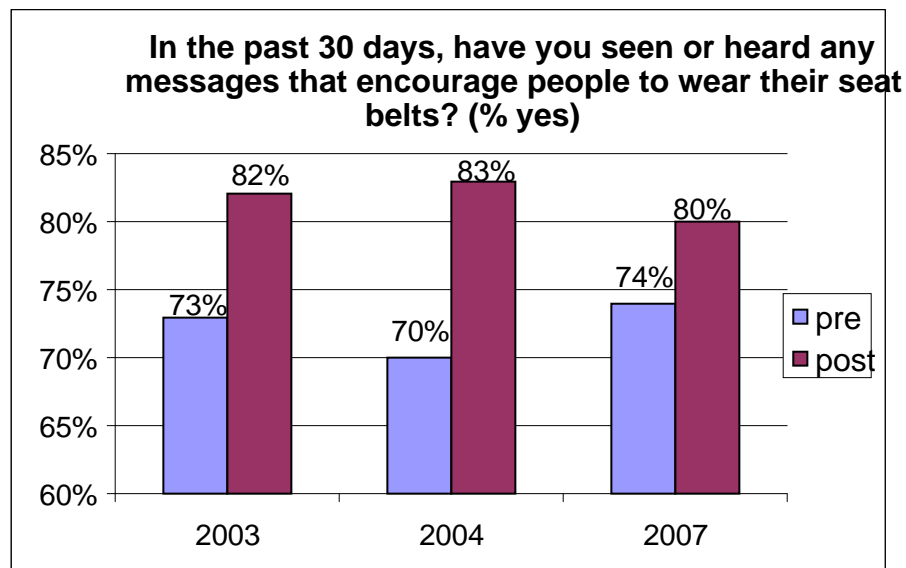


**Figure 20. Nature of Special Efforts Message (% Yes), 2003, 2004, and 2007**



Participants were also asked about awareness of messages encouraging the use of seat belts. As was the case with awareness of special efforts, there were large increases from pre- to post-CIOT in all three years surveyed. In each of the three years, at least 80% reported seeing or hearing such a message after the mobilization (Figure 21).

**Figure 21. Awareness of Belt Message, 2003, 2004, and 2007**



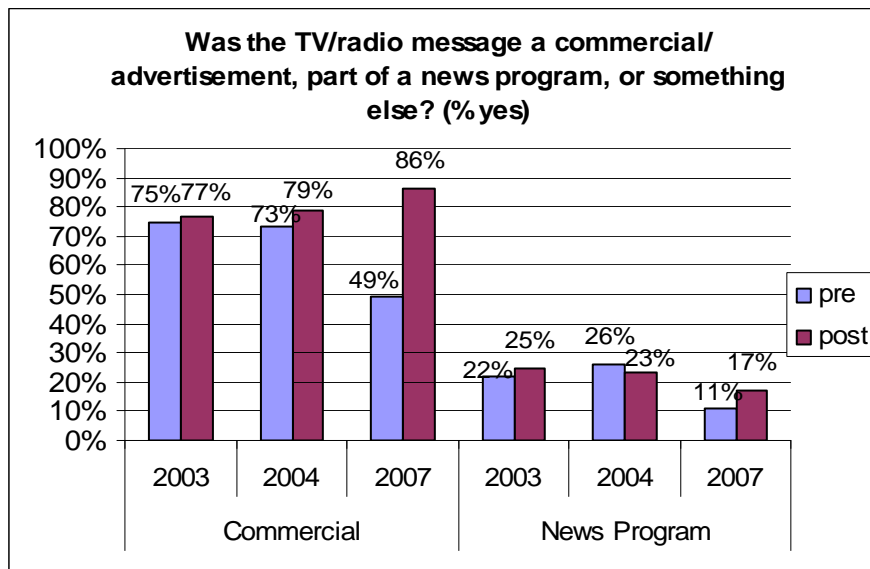
When asked to report on the source of that message, the two most popular answers were *TV* (at least 65% in the post measure) and *billboard/sign* (over 30% in the post). Responses to *TV* showed an increase from pre to post whereas answers to *billboard* showed a decrease. Coming third was *radio*, which generally showed an increase from pre to post (see Table 7 for details). Overall, the majority of respondents indicated *commercial/advertisement* as the source of the message, in both the pre- and the post-CIOT portions of the survey. The year 2007 showed a large increase from pre to post in percentage reporting *commercial* as the nature of the message; much smaller increases were found in 2003 and 2004. The proportion responding *news program*

showed a small increase from pre to post in 2003 and 2007. The reverse was found in 2004 (see Figure 22).

**Table 7. Source of Belt Message Information, 2003, 2004, and 2007**

Where did you see or hear these messages?						
	2003		2004		2007	
	Pre	Post	Pre	Post	Pre	Post
Billboard/sign	42%	36%	37%	33%	50%	35%
Observed	12%	4%	14%	7%	10%	3%
Newspaper	8%	8%	7%	11%	10%	9%
Friend	2%	2%	1%	1%	3%	1%
Radio	24%	27%	25%	30%	22%	22%
TV	62%	65%	65%	73%	58%	68%

**Figure 22. Nature of Belt Message (% Yes), 2003, 2004, and 2007**



A last set of questions assessed participants' recognition of a variety of slogans. Looking at belt-related slogans in the post-CIOT period, the results indicate, not surprisingly, that the *Click It or Ticket* slogan was generally the most recognizable and showed an increase across years (61% in 2003, 70% in 2004, and 79% in 2007).% recognizing *Click It or Ticket* [State] was also high albeit a bit more stable across 2003, 2004, and 2007 (52%, 59%, and 57%, respectively). *Buckle Up* [State] and *Buckle Up America* were relatively popular choices. Other slogans that related to drinking and driving campaigns were highly recognized. The slogan *Friends Don't Let Friends Drive Drunk* was the most recognized (close to 80%), followed by *You Drink, You Drive, You Lose* (around 55% recognition overall). Of the slogans reviewed here, *Get the Keys* was the least recognized (close to 20%). Table 8 indicates the pre and post rates for the reviewed slogans.

**Table 8. Slogan Recognition, 2003, 2004, and 2007**

<b>Do you recall seeing or hearing the following slogans in the past 30 days?</b>						
	<b>2003</b>		<b>2004</b>		<b>2007</b>	
	<b>Pre</b>	<b>Post</b>	<b>Pre</b>	<b>Post</b>	<b>Pre</b>	<b>Post</b>
Buckle Up [State]	51%	57%	56%	59%	47%	41%
Buckle Up America	39%	42%	42%	48%	32%	30%
Click It or Ticket [State]	28%	52%	40%	59%	50%	57%
Click It or Ticket	35%	61%	49%	70%	65%	79%
Get the Keys	20%	23%	19%	22%	13%	15%
You Drink, You Drive, You Lose	50%	54%	60%	64%	58%	49%
Friends Don't Let Friends Drive Drunk	81%	83%	81%	82%	72%	61%

### **Summary of Attitude and Awareness of Seat Belt Use and Enforcement**

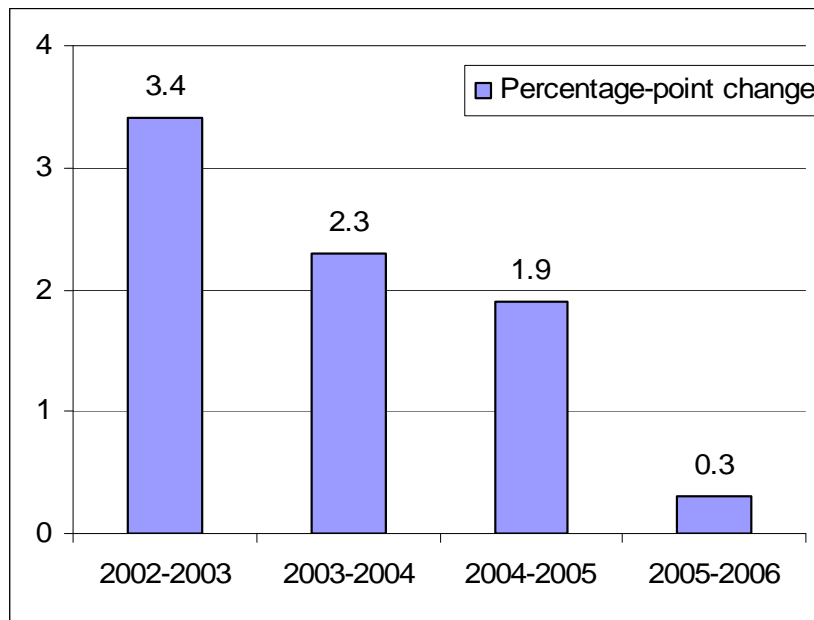
Looking at national trends shows that belt use indeed increased between 2000 and 2005, only to decrease slightly in 2006. The belt use rate in fatalities showed a similar pattern, increasing between 2000 and 2004 and remaining stable through 2005 and 2006. Over the course of the past 16 years (1991-2006), belt use has increased by about 20 percentage points (+22 in observed belt use, +19 in percentage of belted fatalities). Self-reported belt use in nationwide phone survey also show an increase over time, associated with increasing belief in the safety aspect of belt use. Although enforcement activity has remained stable, perception of severity of enforcement has increased, along with support for enforcement. For instance, there is increasing support for primary laws as well as higher agreement that belt enforcement is a worthwhile venture. The level of media activity has followed a similar pattern, increasing from 2001 to 2005, only to drop slightly in 2006. Media awareness has remained high throughout the period and the *Click It or Ticket* slogan has gained in recognition, increasing by 44 percentage points from pre CIOT 2003 to post CIOT 2007.

### **MEASURES OF CHANGES IN BELT USE**

Categorizing States on current belt use rates shows us how different they are at a particular moment in time and is only one of several possible measures of success. Looking at change in belt use over time may be a better tool for identifying factors associated with degree of improvement across States. Similar to what was observed nationally, State survey data also showed evidence of a slowdown in use rate increases during the latter part of the 2000-2006 period. Figure 23 shows the amount of annual improvement averaged across statewide surveys for the years 2002 through 2006. Annual average improvement was greatest from 2002 to 2003 (3.4 percentage points) but it decreased thereafter. Improvement was lowest from 2005 to 2006 (0.3 percentage points) although belt use increased in all but 11 States between 2005 and 2006.

States are known to vary substantially in belt use. For example, the range in observed seat belt use in 2006 was from 63.5% in Wyoming to 96.3% in Washington; the range in belt use in occupant fatalities was from 30.8% in Mississippi to 72.8% in Michigan. These two measures are highly correlated as would be expected (+0.73 in 2006), that is, States with higher observed use tend to have higher use rates in the fatally injured population.

**Figure 23. Improvement across Statewide Use Rates, 2002-2006**



The small changes in national belt use data hide the fact that there were very substantial differences in the extent to which changes in belt use occurred in States over the course of the CIOT programs. Three measures of change were used in making this assessment: the percentage change in observed belt use based on the June Statewide surveys, a “conversion” measure that assesses the extent to which nonusers are converted to users, and the percentage change in belt use among fatally injured daytime front-seat occupant of passenger vehicles as reported in FARS.

In computing the percentage change in belt use, States starting at a lower baseline have an advantage. For example, a State with 85% belt use that has a gain of 10 percentage points has a percentage increase of 12% ( $10/85$ ) and is close to a ceiling. In contrast, a 10-percentage point gain in a State with 40% belt use yields a percentage increase of 25% ( $10/40$ ), in addition to extra room to have growth. The conversion rate (current belt use minus baseline belt use/100 minus baseline) takes away this advantage, giving more credit to closing in on 100%. In the above example, the State with belt use going from 85% to 95% has a conversion rate of 67% ( $(95-85)/100-85$ ), whereas the State going from 40% to 50% has a conversion rate of 17%.

Given these multiple measures of change in belt use, identifying the highest and lowest performing States can become a challenge since the rankings from best to worst differ depending on the measure used. To address this issue and to give each measure equal weighting, a composite ranking score was created. Each State was ranked on each of the three scores and the average rank was computed. As a final stage, States were rank ordered on this average, with the State showing the most change given the lowest rank (#1).

## **CHANGES IN BELT USE, BY STATE**

The central question addressed in this report has to do with the cumulative effects of *Click It or Ticket* programs on a national basis over the entire 2000-2006 period. For these analyses, the baseline period was computed as the average of 1997-1999, using three years in order to have a more stable rate of belt use among occupant fatalities (because of small numbers for single years in some States) as well as a more stable base for observed use. The year 2006 by itself is

considered the post-CIOT period. Most States showed linear increases during these years, and there were few major fluctuations in either direction. Table 9 shows the observed belt use rate, and belt use in fatalities, for States in 1997-1999 and 2006.

Table 10 shows the changes in belt use by State for each of the three change measures between 1997-1999 and 2006. New Hampshire, Maine, and the District of Columbia were excluded from all State analyses: New Hampshire because it has no seat belt use law, Maine because of the lack of State surveys in the baseline period, and DC because there were too few occupant fatalities to calculate reliable rates.

**Table 9. Observed Belt Use Rate and Percentage Belted Daytime Fatalities, 1997-99 and 2006**

	Observed Belt Use %		% Belted Fatalities*	
	1997-99	2006	1997-99	2006
ALABAMA	54.0	82.9	34.9	44.6
ALASKA	57.9	83.2	42.9	71.4
ARIZONA	65.3	78.9	41.9	45.4
ARKANSAS	53.4	69.3	31.4	37.8
CALIFORNIA	88.1	93.4	64.2	71.8
COLORADO	63.6	80.3	42.5	45.2
CONNECTICUT	67.6	83.5	40.0	63.6
DELAWARE	62.6	86.1	39.6	54.1
FLORIDA	58.7	80.7	46.1	48.2
GEORGIA	70.3	90.0	45.2	49.6
HAWAII	80.3	92.5	70.5	61.1
IDAHO	54.7	79.8	32.3	54.1
ILLINOIS	64.2	87.8	42.4	57.0
INDIANA	57.4	84.3	42.9	50.9
IOWA	76.6	89.6	51.4	63.9
KANSAS	59.1	73.5	35.8	45.5
KENTUCKY	55.4	67.2	33.8	36.5
LOUISIANA	66.5	74.8	40.5	47.4
MARYLAND	78.8	91.1	59.4	66.5
MASSACHUSETTS	52.0	66.9	37.6	40.3
MICHIGAN	69.0	94.3	53.3	72.8
MINNESOTA	66.8	83.3	47.3	55.3
MISSISSIPPI	52.8	73.6	28.3	30.8
MISSOURI	61.3	75.2	38.2	36.0
MONTANA	73.2	79.0	37.1	36.1
NEBRASKA	65.3	76.0	33.3	41.1
NEVADA	75.1	91.2	45.1	53.5
NEW JERSEY	62.2	90.0	42.0	46.3
NEW MEXICO	86.3	89.6	46.1	60.9
NEW YORK	74.8	83.0	54.1	62.6
NORTH CAROLINA	78.9	88.5	59.0	60.5
NORTH DAKOTA	45.4	79.0	31.2	43.9
OHIO	62.7	81.7	43.1	52.2
OKLAHOMA	58.9	83.7	34.2	46.3
OREGON	82.5	94.1	63.9	71.6
PENNSYLVANIA	67.5	86.3	38.9	43.7
PUERTO RICO	74.4	92.7	n/a	50.7
RHODE ISLAND	61.6	74.0	27.3	34.8
SOUTH CAROLINA	63.6	72.5	42.9	46.0
SOUTH DAKOTA	56.9	71.3	30.6	25.3
TENNESSEE	58.6	78.6	31.0	45.3
TEXAS	74.3	90.4	53.7	61.3
UTAH	65.7	88.6	37.3	69.9
VERMONT	67.8	82.4	36.3	57.4
VIRGINIA	70.2	78.7	42.7	47.2
WASHINGTON	79.2	96.3	49.1	61.1
WEST VIRGINIA	58.2	88.5	37.3	39.2
WISCONSIN	59.5	75.4	41.7	52.5
WYOMING	54.8	63.5	31.5	37.1

\* 4am to 8:59 pm

**Table 10. Percentage Change in Belt Use Between 1997-1999 and 2006, by State**

	<b>Observed</b>	<b>Conversion</b>	<b>Fatalities</b>
ALABAMA	53.6%	62.9%	27.9%
ALASKA	43.8%	60.1%	66.7%
ARIZONA	20.9%	39.3%	8.5%
ARKANSAS	29.7%	34.1%	20.5%
CALIFORNIA	6.0%	44.5%	12.0%
COLORADO	26.3%	45.9%	6.4%
CONNECTICUT	23.5%	49.1%	59.1%
DELAWARE	37.5%	62.8%	36.5%
FLORIDA	37.4%	53.2%	4.5%
GEORGIA	28.0%	66.3%	9.7%
HAWAII	15.2%	62.0%	-13.3%
IDAHO	45.8%	55.4%	67.8%
ILLINOIS	36.8%	66.0%	34.2%
INDIANA	46.8%	63.1%	18.5%
IOWA	17.0%	55.6%	24.3%
KANSAS	24.4%	35.2%	27.4%
KENTUCKY	21.3%	26.5%	7.9%
LOUISIANA	12.4%	24.7%	17.0%
MARYLAND	15.7%	58.1%	12.1%
MASSACHUSETTS	28.7%	31.0%	7.0%
MICHIGAN	36.7%	81.6%	36.6%
MINNESOTA	24.6%	49.6%	17.1%
MISSISSIPPI	39.5%	44.1%	8.7%
MISSOURI	22.7%	36.0%	-6.0%
MONTANA	7.9%	21.5%	-2.5%
NEBRASKA	16.4%	30.8%	23.4%
NEVADA	21.4%	64.6%	18.5%
NEW JERSEY	44.8%	73.6%	10.2%
NEW MEXICO	3.8%	23.9%	32.1%
NEW YORK	11.0%	32.5%	15.8%
NORTH CAROLINA	12.1%	45.4%	2.5%
NORTH DAKOTA	74.1%	61.6%	40.7%
OHIO	30.3%	50.9%	21.0%
OKLAHOMA	42.1%	60.3%	35.3%
OREGON	14.1%	66.3%	12.1%
PENNSYLVANIA	27.9%	57.8%	12.3%
PUERTO RICO	24.7%	71.5%	n/a
RHODE ISLAND	20.1%	32.2%	27.3%
SOUTH CAROLINA	14.0%	24.5%	7.2%
SOUTH DAKOTA	25.4%	33.5%	-17.5%
TENNESSEE	34.1%	48.3%	46.4%
TEXAS	21.6%	62.6%	14.2%
UTAH	34.9%	66.8%	87.3%
VERMONT	21.5%	45.3%	58.3%
VIRGINIA	12.1%	28.5%	10.5%
WASHINGTON	21.6%	82.2%	24.5%
WEST VIRGINIA	52.2%	72.6%	5.1%
WISCONSIN	26.7%	39.2%	25.7%
WYOMING	15.9%	19.2%	17.9%

All States had increases in observed belt use from 1997-1999 to 2006, by as little as 3.8% (New Mexico, 86.3% to 89.6%) to as much as 74.1% (North Dakota, 45.4% to 79.0%). Conversion rate changes ranged from 19.2% (Wyoming) to 82.2% (Washington). In terms of belted fatalities, all States had positive changes except for Montana, Hawaii, Missouri, and South Dakota; the biggest increase (87.3%) was in Utah (37.3% to 69.9%).

There were modestly positive correlations among the change measures: percentage change in observed use and conversion ( $r = 0.55$ ,  $p < .0001$ ), percentage change in observed use and percentage change in belted fatalities use ( $r = 0.34$ ,  $p < .05$ ), and conversion and percentage change in belted fatalities use ( $r = 0.26$ ,  $p < .10$ ). That is, States that ranked high on one measure tended to rank high on the others too.

### **Variations in Media and Enforcement**

There were large State variations in amount of media and enforcement during the 7 years (Table 11). For the 2000 to 2006 period, total media dollars spent ranged from 2 cents per capita (New York) to \$1.74 per capita (Connecticut). Enforcement ranged from 13.0 belt citations per 10,000 population (Pennsylvania) to 246.9 belt citations per 10,000 population (New Jersey). Interestingly, amounts of media and enforcement were uncorrelated ( $r = 0.09$ ), that is, on a per population basis, there was no tendency for States with larger media buys to have larger numbers of tickets issued.



**Table 11. Variation in Amount of Media and Enforcement, 2000-2006**

	<b>Dollars</b>	<b>Dollars per Capita</b>	<b>Citations</b>	<b>Citations per 10,000 Pop.</b>
ALABAMA	\$2,363,176	\$0.52	70,414	156.2
ALASKA	\$323,050	\$0.50	2,476	38.2
ARIZONA	\$202,000	\$0.04	19,523	34.7
ARKANSAS	\$1,822,163	\$0.67	12,404	45.4
CALIFORNIA	\$5,783,787	\$0.16	456,254	129.0
COLORADO	\$1,365,336	\$0.30	35,056	77.1
CONNECTICUT	\$6,035,228	\$1.74	49,990	144.1
DELAWARE	\$501,489	\$0.61	10,364	126.6
FLORIDA	\$9,404,114	\$0.55	214,757	126.0
GEORGIA	\$1,883,543	\$0.21	114,027	129.9
HAWAII	\$500,000	\$0.40	12,046	96.6
IDAHO	\$491,800	\$0.36	28,642	208.3
ILLINOIS	\$3,988,597	\$0.32	156,723	123.9
INDIANA	\$2,775,783	\$0.45	81,283	131.2
IOWA	\$296,478	\$0.10	20,024	67.9
KANSAS	\$699,441	\$0.26	12,902	47.3
KENTUCKY	\$2,500,326	\$0.61	31,511	76.5
LOUISIANA	\$1,810,286	\$0.41	26,002	58.4
MARYLAND	\$1,943,000	\$0.35	25,135	45.8
MASSACHUSETTS	\$1,719,113	\$0.27	27,262	42.5
MICHIGAN	\$3,558,523	\$0.35	115,273	114.7
MINNESOTA	\$1,106,094	\$0.22	44,587	88.2
MISSISSIPPI	\$1,655,631	\$0.58	14,196	49.3
MISSOURI	\$593,038	\$0.10	15,620	27.3
MONTANA	\$1,187,177	\$1.29	3,558	38.7
NEBRASKA	\$413,850	\$0.24	4,354	25.0
NEVADA	\$1,033,906	\$0.46	11,807	52.4
NEW JERSEY	\$1,337,000	\$0.16	214,376	249.0
NEW MEXICO	\$247,078	\$0.13	21,675	115.2
NEW YORK	\$470,000	\$0.02	294,350	153.3
NORTH CAROLINA	\$924,913	\$0.11	97,650	115.7
NORTH DAKOTA	\$472,586	\$0.74	5,256	82.7
OHIO	\$3,119,298	\$0.27	113,631	99.4
OKLAHOMA	\$1,341,147	\$0.38	54,362	154.9
OREGON	\$598,737	\$0.17	24,962	70.1
PENNSYLVANIA	\$2,266,663	\$0.18	16,014	13.0
PUERTO RICO	\$267,968	\$0.07	31,893	82.3
RHODE ISLAND	\$752,479	\$0.70	9,046	84.7
SOUTH CAROLINA	\$2,027,320	\$0.49	46,014	110.7
SOUTH DAKOTA	\$132,230	\$0.17	1,953	25.5
TENNESSEE	\$2,148,206	\$0.37	41,296	70.6
TEXAS	\$9,060,374	\$0.41	222,716	100.5
UTAH	\$449,551	\$0.19	29,137	122.3
VERMONT	\$948,095	\$1.53	5,955	96.4
VIRGINIA	\$699,231	\$0.09	12,201	16.5
WASHINGTON	\$2,141,979	\$0.35	46,074	75.0
WEST VIRGINIA	\$1,105,890	\$0.61	28,374	156.8
WISCONSIN	\$1,493,608	\$0.27	37,594	68.8
WYOMING	\$138,671	\$0.28	720	14.3

### **State Rankings in Belt Use Change Measures**

Using measures of belt use change (data shown in Table 10), States were ranked on belt use changes, from most change (#1) to least. Rankings for the three separate measures (percentage change and conversion in observed belt use, percentage change in FARS) are shown in Table 12, presented alphabetically by State. A summary category was also created based on the average of rankings on percentage increase in belt use, the conversion rate, and the percentage increase in belted fatalities. The summary rankings, best to worst, are in Table 13.

**Table 12. Belt Use Change – Rankings on Three Measures**

State	Rank		
	Observed Belt Use		FARS
	% Change	Conversion	% Change
ALABAMA	2	12	13
ALASKA	7	18	3
ARIZONA	34	33	37
ARKANSAS	17	37	21
CALIFORNIA	48	31	32
COLORADO	22	28	41
CONNECTICUT	27	26	4
DELAWARE	10	13	9
FLORIDA	11	23	43
GEORGIA	19	8	35
HAWAII	40	15	47
IDAHO	5	22	2
ILLINOIS	12	9	11
INDIANA	4	11	22
IOWA	36	21	18
KANSAS	26	36	14
KENTUCKY	33	44	38
LOUISIANA	43	45	26
MARYLAND	25	25	30
MASSACHUSETTS	39	19	40
MICHIGAN	18	41	8
MINNESOTA	13	2	25
MISSISSIPPI	9	32	36
MISSOURI	28	35	46
MONTANA	47	48	45
NEBRASKA	37	42	19
NEVADA	32	10	23
NEW JERSEY	6	3	34
NEW MEXICO	49	47	12
NEW YORK	46	39	27
NORTH CAROLINA	44	29	44
NORTH DAKOTA	1	16	7
OHIO	16	24	20
OKLAHOMA	8	17	10
OREGON	41	7	31
PENNSYLVANIA	20	20	29
PUERTO RICO	24	5	n/a
RHODE ISLAND	35	40	15
SOUTH CAROLINA	42	46	39
SOUTH DAKOTA	23	38	48
TENNESSEE	15	27	6
TEXAS	30	14	28
UTAH	14	6	1
VERMONT	31	30	5
VIRGINIA	45	43	33
WASHINGTON	29	1	17
WEST VIRGINIA	3	4	42
WISCONSIN	21	34	16
WYOMING	38	49	24

**Table 13. State Rankings on Belt Use Changes 1997-99 to 2006, Best to Worst.**

Law*	State	Rank				
		Observed Belt Use		Belted Fatalities	Combined	
		% Change	Conversion	% Change	Avg. Rank	Summary Rank
Sec	UTAH	14	6	1	7.0	1
Conv	MICHIGAN	18	41	8	7.7	2
Sec	NORTH DAKOTA	1	16	7	8.0	3
Conv	ALABAMA	2	12	13	9.0	4
Conv	ALASKA	7	18	3	9.3	5
Sec	IDAHO	5	22	2	9.7	6
Conv	DELAWARE	10	13	9	10.7	7
Conv	ILLINOIS	12	9	11	10.7	7
Prim	OKLAHOMA	8	17	10	11.7	9
Conv	INDIANA	4	11	22	12.3	10
Conv	NEW JERSEY	6	3	34	14.3	11
Conv	WASHINGTON	29	1	17	15.7	12
Conv	TENNESSEE	15	27	6	16.0	13
Sec	WEST VIRGINIA	3	4	42	16.3	14
Prim	CONNECTICUT	27	26	4	19.0	15
Sec	OHIO	16	24	20	20.0	16
Prim	GEORGIA	19	8	35	20.7	17
Sec	NEVADA	32	10	23	21.7	18
Sec	VERMONT	31	30	5	22.0	19
Sec	PENNSYLVANIA	20	20	29	23.0	20
Sec	WISCONSIN	21	34	16	23.7	21
Prim	TEXAS	30	14	28	24.0	22
Sec	ARKANSAS	17	37	21	25.0	23
Prim	IOWA	36	21	18	25.0	23
Sec	MINNESOTA	13	2	25	25.0	23
Sec	KANSAS	26	36	14	25.3	26
Sec	FLORIDA	11	23	43	25.7	27
Conv	MISSISSIPPI	9	32	36	25.7	27
Prim	OREGON	41	7	31	26.3	29
Prim	MARYLAND	25	25	30	29.3	30
Sec	RHODE ISLAND	35	40	15	30.0	31
Sec	COLORADO	22	28	41	30.3	32
Sec	NEBRASKA	37	42	19	32.7	33
Sec	MASSACHUSETTS	39	19	40	33.0	34
Prim	HAWAII	40	15	47	34.0	35
Sec	ARIZONA	34	33	37	34.7	36
Prim	NEW MEXICO	49	47	12	36.0	37
Sec	MISSOURI	28	35	46	36.3	38
Sec	SOUTH DAKOTA	23	38	48	36.3	38
Prim	CALIFORNIA	48	31	32	37.0	40
Sec	WYOMING	38	49	24	37.0	40
Prim	NEW YORK	46	39	27	37.3	42
Prim	LOUISIANA	43	45	26	38.0	43
Sec	KENTUCKY	33	44	38	38.3	44
Prim	NORTH CAROLINA	44	29	44	39.0	45
Sec	VIRGINIA	45	43	33	40.3	46
Conv	SOUTH CAROLINA	42	46	39	42.3	47
Sec	MONTANA	47	48	45	46.7	48
Prim	PUERTO RICO	24	5	n/a	n/a	n/a

\* Law Type: Primary (Prim), Secondary (Sec), Converted from Secondary to Primary (Conv)

It is notable that had the non-law State of New Hampshire been included, it would have ranked dead last in Table 13, with an increase in belt use from 57.7% to 63.5% (10% belt increase, 14% conversion) coupled with a decrease in belted fatalities from 31.8% to 21.9% (-31%).

In terms of the rankings themselves, the primary States did somewhat better overall. Of course, those converting from secondary at baseline to primary in 2006 had a clear advantage in achieving increased belt use, and most such States were near the top. However, some of the States that had the greatest changes in seat belt use had secondary laws, some of the States that had the smallest improvements in seat belt use had primary laws, and South Carolina, a conversion State, was next to last.

### **Belt Use Changes, Media and Enforcement**

Correlations were computed in order to explore the relationship between belt use changes, media, and enforcement levels. Specifically, do States that have greater changes in belt use over the entire 2000-2006 period also have greater levels of media and enforcement? Since the greatest belt use change gets the lowest ranking, this would be revealed by negative correlations between belt use change and media and enforcement. Based on all States, the correlation between belt use change, using the summary rank measure and media dollars per capita, was in the expected direction, but modest ( $r = -0.15$ ). Media activity levels were also rank ordered, with States spending the most and ticketing the most getting the lowest ranking. Given that States with the highest change have the lowest ranking, any association between media and belt use would be indicated by a positive correlation. The results revealed a significant correlation in the expected direction ( $r = .29$ ,  $p = .047$ ). Thus, both measures of association between media and belt use show a similar relationship (more belt change is related to more media dollars spent). However, only the media rank measure reached significance.

The correlation between belt use change and amount of enforcement (defined as number of belt citations per 10,000 population) was statistically significant ( $r = -0.44$ ,  $p = .002$ ). Thus the lower the rank (and thus, the more change), the higher the enforcement. Similar findings were obtained when using a rank measure of enforcement (more enforcement, lower rank). There was a significant positive correlation between belt use change rankings and enforcement level ranking ( $r = .43$ ,  $p = .002$ ). Since the key to a successful CIOT campaign is the combination of enforcement and media, a composite score was created based on the average rankings of media and awareness. The combined rank of media + enforcement was also significantly correlated with the belt use change rank ( $r = .47$ ,  $p = .001$ ).

There is a suspicion that the relationship between belt use change and enforcement levels could be due to the States changing from secondary to primary law. These States have an advantage in achieving higher belt use during this period combined with higher enforcement levels. It is possible for the relationship between belt use change and greater enforcement to be strongly related to the switch to primary law. To examine that possibility, the 11 conversion States were eliminated from the data and the correlation was re-computed. Results indicated that the link was still there ( $r = -0.42$ ,  $p = .01$ ) so the switch to primary is not the main force behind the correlation. Similar results were obtained when using the enforcement rank measure ( $r = .41$ ,  $p = .013$ ). Without the conversion States, the correlation between belt use change and media totals remained small ( $r = -0.21$ ) and the size of the correlation between belt use change and media rank was similar as with all the States included ( $r = .33$ ,  $p = .047$ ).

### States With the Largest and Smallest Increases in Seat Belt Use

Next, five States that had the greatest increases in seat belt used were compared with five States that had the smallest increases in seat belt use. Table 14 shows the relationships between States with the best and worst seat belt use changes, and States' media and enforcement levels. According to Table 13, the five States that increased seat belt use the most were Utah, Michigan, North Dakota, Alabama, and Alaska; the five States that had the smallest increases in seat belt use were Louisiana, North Carolina, Virginia, South Carolina, and Montana. The data in Table 14 were based on the average amounts of media and enforcement per State, in order to give each State equal weighting.

**Table 14. Five States With the Most Belt Use Change versus the Five States With the Least Change: Media and Enforcement Levels (Based on State Averages)**

	Media \$ per Capita	Enforcement Citations per 10,000 Pop.
MOST CHANGE	\$0.46	102.8
LEAST CHANGE	\$0.48	67.8

Table 14 results are in line with the correlation data based on all States, that is, belt use change was associated with high levels of enforcement, but was unrelated to media dollars spent.

### Attitude Changes in States With the Largest and Smallest Increases in Belt Use

Changes in attitude and awareness were assessed by comparing responses from the 2003 MVOSS survey to the 2007 pre-CIOT survey. Both surveys were conducted before any *Click It or Ticket* media event or enforcement activities (between January and March 2003 in the case of the MVOSS survey, and in April 2007 in the case of the 2007 pre-CIOT survey), and are thus believed to reflect respondents' beliefs and attitudes, unaltered by the influence of any ongoing campaign. The 2003 pre-CIOT survey data were not available by State and thus could not be used to create the comparison groups necessary to explore the difference between top and bottom change States. The surveys were deemed comparable since they share methodology and subsets of questions.

The responses of two groups, 10 States with the greatest increase in seat belt use and 10 States with the smallest increase in seat belt use, were compared. The 10 States with the greatest increase in seat belt use were Utah, Michigan, North Dakota, Alabama, Alaska, Idaho, Delaware, Illinois, Oklahoma, and Indiana. The 10 States with the smallest increases in seat belt use were South Dakota, California, Wyoming, New York, Kentucky, Louisiana, North Carolina, Virginia, South Carolina, and Montana.

The survey results can be summarized on three categories of questions: attitudes toward belt use, perception of enforcement severity, and attitudes toward enforcement. The analyses explored if the level of change in belt use was paralleled by the level of change in attitudes, as assessed by a set of binary logistic regression. Since the available 2003 survey data did not include questions on awareness, changes over time cannot be explored for this issue.

### Attitude Towards Seat Belt Use

The vast majority of respondents indicated wearing their seat belt *all of the time*, and the self-reported rates did increase significantly from 2003 to 2007. In the top change States, self-reported belt use went up from 82% to 91%; in the bottom change States, self-reported belt use went up from 87% to 97%. Results of a binary logistic regression showed a significant effect of State type ( $p < .05$ ) and Year ( $p < .0001$ ). Overall, the bottom change States reported higher seat

belt use rates than top change States, and reported belt use rates were higher in 2007 than they were in 2003. The State by year interaction was not significant.

Three additional questions assessed attitudes toward belt use and required participants to indicate their level of agreement or disagreement with a series of statements. There was general disagreement with the statement *Seat belts are just as likely to harm you as to help you*. In both categories of States, the percentage of people disagreeing (*strongly/somewhat disagree*) with the statement increased over time, from 64% to 71% in the top change States and from 64% to 72% in the bottom change States. The binary logistic regression revealed a main effect of year ( $p = .01$ ), with 2007 rates of disagreement being higher than the 2003 rates. No other effect reached significance. Overall, more than 90% indicated strong agreement (*strongly agree*) with the statement *If I was in an accident, I would want my seat belt on* and the responses increased over time (from 87% to 92% from 2003 to 2007 in the top change States and from 90% to 93% in the bottom change States). The regression analysis showed no significant main effect or interaction for this item. There was general disagreement with the statement *Putting on a seat belt makes me worry about being in an accident*. Seventy one% of respondents in the top change States *strongly disagreed* with the statement in 2003, compared to 66% in 2007. In the bottom change States, 70% strongly disagreed in 2003 compared to 72% in 2007. The regression analysis revealed no significant main effects or interaction for this statement.

### **Perception of Enforcement Severity**

Respondents were asked to evaluate the risk of getting a ticket for seat belt violation. There were large increases in perceived risk of being ticketed from 2003 to 2007 but the variation between categories of States was rather small. In the top change States, 48% evaluated their chance of getting a ticket as *very* or *somewhat likely* in 2003, compared to 68% in 2007; in the bottom change States, the corresponding increase was from 50% in 2003 to 72% in 2007. The binary logistic regression showed a main effect of Year ( $p < .0001$ ), that is, perception of risk of getting a ticket increased over time. There was no significant main effect of State type or interaction.

In reaction to the Statement '*Police in my community generally will not bother to write tickets for seat belt violations*', 49% of respondents in the top change States reported *strongly* or *somewhat* agreeing with the statement in 2003. This figure decreased to 42% by 2007. The bottom change States also showed a decrease in agreement from 52% to 34%. The binary logistic regression indicated no main effect of State type, but did indicate a significant main effect of Year ( $p < .0001$ ), suggesting that in 2007, more people believed that police will ticket for nonuse than they did four years earlier. The interaction between year and State type approached significance ( $p = .06$ ), suggesting that the decrease in the bottom change States may have been greater than the change in the top change States.

### **Attitude Towards Enforcement**

The last question assessed attitudes toward having a primary seat belt law. When asked whether police should *be allowed to stop a vehicle if they observe a seat belt violation when no other traffic laws are being broken*, there was a general increase in agreement from 2003 to 2007. This was indicated by a significant main effect of year ( $p < .01$ ). In States with the greatest increases in belt use, 61% indicated *should be allowed* in 2003, compared to 78% in 2007. In States with the smallest increases in belt use, the corresponding figures were 71% and 79%. There was no significant interaction or main effect of State type.

## Summary of Attitude Changes in States With the Largest and Smallest Increases in Belt Use

Using 1997-1999 as baseline, the States with the highest and lowest belt use change showed a clear-cut difference in level of enforcement but were quite similar on paid media activity. Changes in attitudes were evident across years but there were only minor differences between top and bottom States.

## PRIMARY VERSUS SECONDARY STATES

One major split among States is in terms of whether they permit standard enforcement of belt use violations or whether the belt violation must be secondary to another violation. Generally, belt use is higher in primary States than in secondary States. Data in Table 15 show this to be the case for both observed belt use and belt use in daytime fatalities. Belt use has generally increased between 1998 and 2005 and has leveled off between 2005 and 2006. Other than the higher belt use rate in primary States, both primary and secondary law States show a very similar pattern of change over time. The following section will explore variations in attitudes across primary and secondary States. The differential effects of the CIOT mobilizations on belt use change, media, and enforcement levels of primary and secondary States were also explored using the 1997 to 1999 baseline.

**Table 15. Belt Use by Law Type, 1998-2007**

	% Belted (Observed)		% Belted (Daytime FARS)	
	Primary	Secondary	Primary	Secondary
1998	75%	61%	53%	40%
1999	76%	64%	50%	38%
2000	78%	65%	51%	40%
2001	80%	67%	53%	40%
2002	83%	70%	55%	41%
2003	84%	73%	57%	43%
2004	86%	75%	59%	45%
2005	87%	77%	57%	43%
2006	87%	78%	58%	45%
2007	87%	81%	56%	49%

## Attitudes in Primary and Secondary States

Based on type of seat belt law, three groups of States were created to examine variations in attitudes. Responses to the 2003 MVOSS survey were compared to responses to the 2007 pre-CIOT survey. The States were grouped based on existing laws in the early part of 2003 (January to March, when the survey was conducted) and in May-June 2007 (when the pre-CIOT survey was conducted). For the sake of consistency with the belt use data, Maine, New Hampshire, and the District of Columbia were excluded from these analyses. As a result, 18 States were primary throughout the period, 22 were secondary throughout, and 7 States converted from secondary to primary law between March 2003 and June 2007. These 7 States and their effective primary enforcement date are shown in Table 16. Binary logistic regressions were conducted for each question of interest, using secondary States as a baseline for the State type variable.



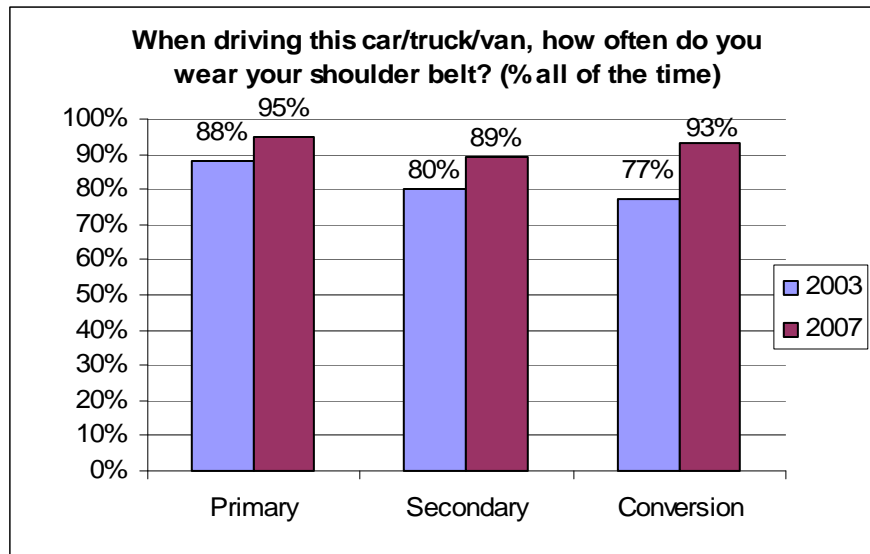
**Table 16. Conversion States: Effective Date of Primary Law**

State	Initial Effective Date*
ALASKA	05/01/2006
DELAWARE	06/30/2003
ILLINOIS	07/03/2003
KENTUCKY	07/20/2006
MISSISSIPPI	05/27/2006
SOUTH CAROLINA	12/09/2005
TENNESSEE	07/01/2004

\* Source: <http://www.iihs.org/laws/SafetyBeltUse.aspx>

### Attitudes Towards Seat Belt Use

Looking at self-reported belt use, the three groups of States showed increases between 2003 and 2007. The conversion States showed the largest increase – 16 percentage points – followed by secondary States with a 9-percentage-point increase and primary States with +7 (see Figure 24 for details). The results of a binary logistic regression revealed a significant main effect of Year ( $p < .01$ ) and State Type ( $p < .0001$ ). The main effect of year indicates that a larger proportion of respondents reported wearing their seat belts all the time in 2007 than they did in 2003. Primary seat belt law States showed a significantly higher proportion of respondents who indicated they wear their seat belts *all of the time* than secondary States ( $p < .0001$ ). The year by State type interaction was not significant.

**Figure 24. Changes in Self-Reported Belt Use by Law Type, 2003-2007**

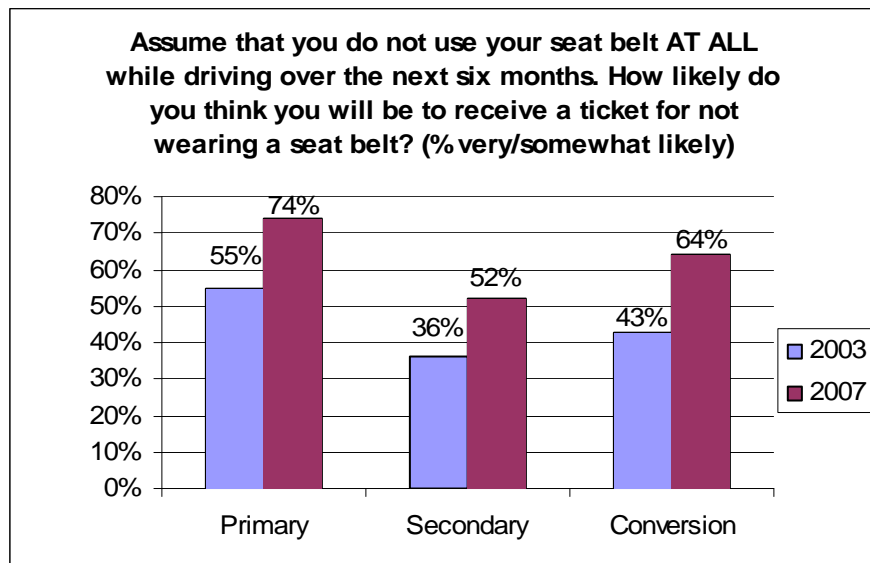
On the question of whether *seat belts are as likely to harm you as to help you*, all three groups of States showed increases in percentage of respondents indicating *strongly disagree* (from 65% to 72% in primary States, from 62% to 72% in secondary States, and from 61% to 68% in conversion States). The binary logistic regression showed a significant main effect of Year ( $p < .0001$ ), with more respondents indicating disagreement in 2007 than they did in 2003. No other effect or interaction was significant. The primary, secondary, and conversion States showed small increases in agreement in response to the statement *If I was in an accident, I would want to have my seat belt on*. Ninety percent of primary States respondents indicated *strongly agree* in 2003 compared to 93% in 2007; secondary States showed an increase from 87% to 91% and conversion States went from 86% to 90% between 2003 and 2007. The binary logistic re-

gression indicated a significant main effect of year ( $p<.05$ ) but no significance on the main effect of State type or the interaction. Between 2003 and 2007, there were only minor changes when respondents were asked whether putting on a seat belt made them worry about being in an accident. Respondents in primary States showed a 1-percentage-point increase in percentage responding *strongly disagree*, compared to a 4-percentage-point drop in secondary States and a 3-point drop in conversion States. There were no significant main effects or interaction.

### Perception of Enforcement Severity

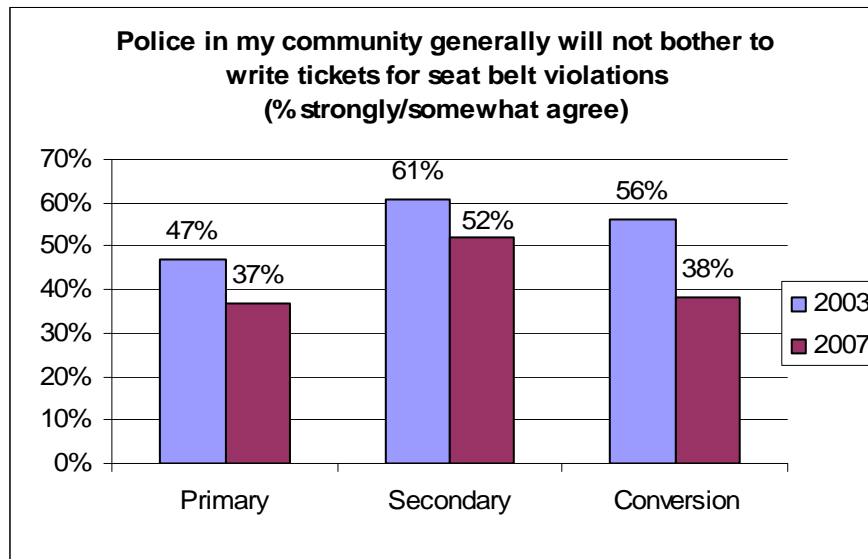
Large increases were observed between 2003 and 2007 in perceived likelihood of getting a ticket for a belt violation. The largest increase (21-percentage point) was in the conversion States, the second largest in primary States (+19), and secondary States showed the smallest increase with a 16-percentage-point change (see Figure 25). Overall, perceived likelihood of getting a ticket was higher in 2007 than it was in 2003 and differed across State types, as evidenced by the significant main effects for both year and State type (both at  $p<.0001$ ). Significant differences were seen between secondary States and primary States ( $p<.0001$ ) and between secondary States and conversion States ( $p<.01$ ). In both cases, secondary States had a lower likelihood of indicating that the chance of being ticketed for nonuse was *very* or *somewhat likely*.

**Figure 25. Likelihood of Being Ticketed for Nonuse, by State Type**



Between 2003 and 2007, conversion States showed an 18-percentage-point decrease when asked to indicate how much they agreed with a statement suggesting that police do not bother writing tickets for belt violations. Pre-law change, 56% of respondents agreed that police did not bother writing tickets compared to 38% after the law change. Primary and secondary States showed a 10- and 9-percentage-point decrease, respectively (Figure 26). The binary logistic regression showed a significant main effect for both year ( $p<.01$ ) and State type ( $p<.0001$ ), suggesting a higher proportion of disagreeing respondents in 2003 compared to 2007. There were also significant differences between secondary and primary States ( $p<.0001$ ) and between secondary and conversion States ( $p<.05$ ). In both cases, secondary States were less likely to disagree with the statement than were respondents in primary or conversion States.

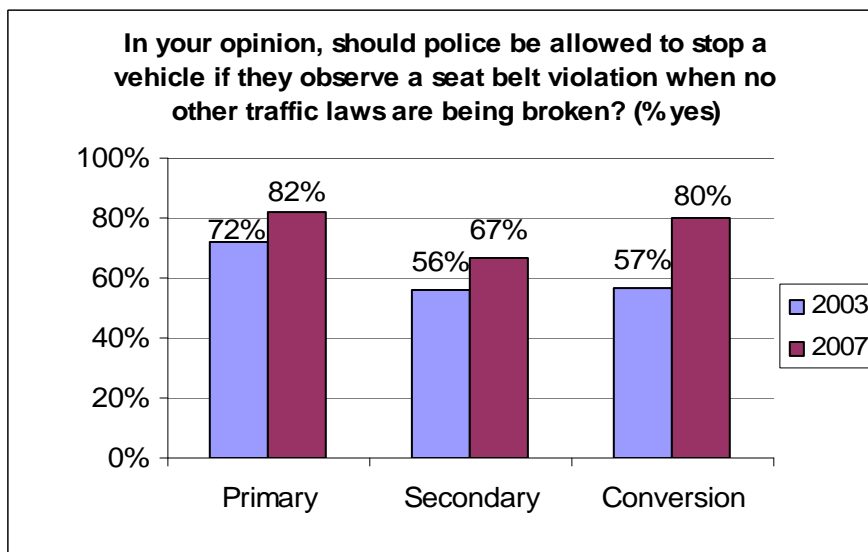
**Figure 26. Police Don't Bother Ticketing for Belt Violations, by State Type**



### **Attitudes Towards Enforcement**

Support for primary belt law was assessed by asking respondents whether police should be allowed to stop a motorist for a belt violation alone. The largest increase in agreement (23percentage points) was seen in the conversion States. Primary and secondary States showed a 10- and 11-point increase, respectively (see Figure 27). The binary logistic regression revealed a main effect of year and State type (both at  $p < .0001$ ). Secondary States were found to differ significantly from primary States ( $p < .0001$ ) and from conversion States ( $p < .05$ ). In both cases, respondents in secondary States were less likely to indicate that police *should be allowed to stop* for belt violation alone. Rate of support for primary law was higher in 2007 than it was in 2003.

**Figure 27. Support for Primary Law, by State Type**



## **Summary of Attitudes in Primary and Secondary States**

Primary States on average have higher belt use rates than secondary States. Results of the attitude survey show that there are important changes over time in almost every question reviewed. Self-reported belt use increased over time and is higher in primary and conversion States than in secondary States. Moreover, there were significant attitudinal differences between primary, secondary, and conversion States, especially on the issue of enforcement. Both perception of enforcement severity and support for primary enforcement of seat belt laws were stronger in primary and conversion States than they were in secondary States.

### **Belt Use Change, Media, and Enforcement in Primary and Secondary States**

In the 1997-to-2006 period, there were States that were primary throughout (14 in total), those that were secondary throughout (24), and 11 that were secondary during the baseline period but primary in 2006. These conversion States are Alaska, Alabama, Delaware, Illinois, Indiana, Michigan, Mississippi, New Jersey, South Carolina, Tennessee, and Washington. Table 17 shows the 1997-1999-to-2006 belt use change summary rank, along with media dollars and amount of enforcement over the 2000-2006 period for the three types of States. Table 18 indicates average media dollars spent and the amount of enforcement in the 2000-to-2006 period. Table 19 shows the 1997-1999-to-2006 average belt use changes.

Table 17. Belt Use Change, Media and Enforcement by State, 1997/99-2006

State	Summary Rank	Media\$ per Capita	Citations per 10k Population
<b>Primary Law States</b>			
OKLAHOMA	4	\$0.38	154.9
CONNECTICUT	6	\$1.74	144.1
GEORGIA	8	\$0.21	129.9
TEXAS	13	\$0.41	100.5
IOWA	14	\$0.10	67.9
OREGON	19	\$0.17	70.1
MARYLAND	20	\$0.35	45.8
HAWAII	25	\$0.40	96.6
NEW MEXICO	27	\$0.13	115.2
CALIFORNIA	30	\$0.16	129.0
NEW YORK	32	\$0.02	153.3
LOUISIANA	33	\$0.41	58.4
NORTH CAROLINA	35	\$0.11	115.7
<b>Secondary Law States</b>			
UTAH	1	\$0.19	122.3
NORTH DAKOTA	2	\$0.74	82.7
IDAHO	3	\$0.36	208.3
WEST VIRGINIA	5	\$0.61	156.8
OHIO	7	\$0.27	99.4
NEVADA	9	\$0.46	52.4
VERMONT	10	\$1.53	96.4
PENNSYLVANIA	11	\$0.18	13.0
WISCONSIN	12	\$0.27	68.8
ARKANSAS	14	\$0.67	45.4
MINNESOTA	14	\$0.22	88.2
KANSAS	17	\$0.26	47.3
FLORIDA	18	\$0.55	126.0
RHODE ISLAND	21	\$0.70	84.7
COLORADO	22	\$0.30	77.1
NEBRASKA	23	\$0.24	25.0
MASSACHUSETTS	24	\$0.27	42.5
ARIZONA	26	\$0.04	34.7
MISSOURI	28	\$0.10	27.3
SOUTH DAKOTA	28	\$0.17	25.5
WYOMING	30	\$0.28	14.3
KENTUCKY	34	\$0.61	76.5
VIRGINIA	36	\$0.09	16.5
MONTANA	37	\$1.29	38.7
<b>Conversion States</b>			
MICHIGAN	2	\$0.35	114.7
ALABAMA	4	\$0.52	156.2
ALASKA	5	\$0.50	38.2
DELAWARE	7	\$0.61	126.6
ILLINOIS	7	\$0.32	123.9
INDIANA	10	\$0.45	131.2
NEW JERSEY	11	\$0.16	249.0
WASHINGTON	12	\$0.35	75.0
TENNESSEE	13	\$0.37	70.6
MISSISSIPPI	27	\$0.58	49.3
SOUTH CAROLINA	47	\$0.49	110.7

Table 18 indicates that secondary States have the lowest level of enforcement. States that switched to primary during the study period showed the highest average enforcement, which is impressive since most of these States were secondary for some part of 2000-2006. The enforcement bulge did not translate to media dollars; both secondary and conversion States had comparable levels while the “pure” primary States were somewhat lower in amounts spent per capita.

**Table 18. Media Dollars and Enforcement Level by State Type, 2000-2006\***

	<b>Media Dollars per 10,000 Pop. Average of States</b>	<b>Citations per 10,000 Pop. Average of States</b>
PRIMARY LAW	\$0.33	104.6
SECONDARY LAW	\$0.43	69.6
CONVERTED TO PRIMARY LAW	\$0.43	113.2

\* Note that the majority of States began media in 2003, when the first nationwide campaign began

Table 19 indicates that primary States had baseline use rates about 14percentage points higher than secondary States. All States had increases in use during the study period, with positive changes in both observed use and use among fatally injured occupants highest in the States converting from secondary to primary. Secondary States, starting from a lower base, had higher percentage increases than pure primary States; the pure primary States had higher conversion rates than secondary States.

**Table 19. Changes in Belt Use by State Type, 1997-99 to 2006**

<b>State Type</b>	<b>Observed</b>		<b>Change %</b>	<b>Conversion %</b>	<b>% Belted Fatalities</b>		<b>Change %</b>
	<b>1997-99</b>	<b>2006</b>			<b>1997-99</b>	<b>2006</b>	
PRIMARY LAW	75.6%	88.4%	16.9%	52.3%	52.5%	59.9%	14.1%
SECONDARY LAW	61.4%	77.9%	26.9%	42.8%	37.5%	44.9%	19.8%
CONVERTED TO PRIMARY LAW	61.9%	84.5%	36.4%	59.3%	40.8%	52.8%	29.1%

The correlations between belt use change, media and enforcement level were investigated with correlations based on primary, secondary, and conversion States separately. The belt use change measure was ranked, with most change getting the lowest rank (Table 17). Thus, one would expect correlations between number of citations and amount for paid media to be negatively correlated with belt change rank. These analyses were based on small numbers. The conversion States showed no pattern ( $r = .22$  for media and  $r = -.16$  for enforcement, neither was close to significance). For primary enforcement States, there was a correlation of  $r = -0.46$  between belt use change and media dollars, and the correlation with citations was  $r = -0.24$ . Neither was close to standard statistical significance most likely because of the small number of States involved (14). For secondary States, there was no significant relationship between belt use change and media dollars ( $r = .05$ ), but the correlation with enforcement presence was  $r = -0.65$ , which was significant ( $p = .001$ ).

As an alternate measure of media and enforcement activity levels, ranks were computed, with States spending the most and ticketing the most getting the lowest ranking. In addition, a composite rank of media plus enforcement was computed to explore the combined effect of media and enforcement and its relation to belt use change. Given that States with the highest change have the lowest ranking, any association between media and belt use would be indicated by a positive correlation. No significant pattern emerged for the conversion States (media  $r = -.21$ , enforcement,  $r = .18$ , combined  $r = .01$ ). In primary States, using the rank variable showed no significant association between belt use change and media or between belt use change and citations. However, the combined media and enforcement measure was positively correlated with

belt use change ( $r = .56$ ,  $p = .046$ ). Finally, in secondary States, there were no significant pattern for media ( $r = .20$ ), but both citations ( $r = .65$ ,  $p = .001$ ) and the combined measure ( $r = .47$ ,  $p = .022$ ) showed a significant correlation with belt use change. Overall, belt use change was related to enforcement in secondary States only and was related to the combined media and enforcement measure for both primary and secondary States.

### **Top and Bottom Primary Law States and Secondary Law States**

Table 17 ranks the primary, secondary, and conversion States based on belt use change from 1997-1999 to 2006. Within each category, the 5 top-ranked States are green and the 5 bottom-ranked States are in red. The 5 top primary States -- Oklahoma, Connecticut, Georgia, Texas, and Iowa -- have higher average levels of media (\$0.57 per capita) than the bottom primary States - New Mexico, California, New York, Louisiana, and North Carolina (\$0.17). Primary seat belt enforcement States that had the highest and lowest seat belt use rates had indistinguishable levels of enforcement (average of 119.5 citations per 10,000 residents in top States versus 114.3 in bottom States). In the top 5 secondary States -- Utah, North Dakota, Idaho, West Virginia, and Ohio -- the average number of citations per 10,000 residents was 133.9; in the bottom 5 secondary States -- South Dakota, Wyoming, Kentucky, Virginia, and Montana -- the average was 34.3. The bottom secondary States had slightly higher levels of media activity (\$0.49) than the top secondary States (\$0.43).

Primary and secondary States thus show opposite patterns. Whereas top and bottom primary States show large differences in levels of media, top and bottom secondary States do not. Conversely, top and bottom secondary States show large differences in numbers of citations but top and bottom primary States do not. Thus, it would appear as though level of media is one component that distinguishes primary States with high and low belt use change, while in secondary States level of enforcement differentiates high from low change States.

The above analyses, which were run using the 1997-1999 baseline, were also run using only the 1999 baseline. One reason for this was Maryland and Oklahoma converted from secondary to primary in late 1997. Since they were primary States for two out of the three 1997-to-1999 years, they were placed in the primary States group. When this was done, all of the relationships reported based on 1997-1999 data remained intact.

### **Summary of Belt Use Change, Media, and Enforcement in Primary and Secondary States**

Belt use is generally higher in primary States than in secondary States. When looking at changes in belt use over time, States that changed seat belt law from secondary to primary enforcement tend to show a larger increase than either primary or secondary States. Enforcement activity is higher in primary and conversion States than in secondary States while media tend to be higher in secondary and conversion States than it is in primary States. Compared to other State types, conversion States have a tendency to show more support for primary law and higher perceived risk of being ticketed.

### **THE REMAINING LOW BELT USE GROUPS**

In the 21<sup>st</sup> century, in association with *Click It or Ticket* programs, seat belt use has risen overall, and in most occupant subgroups. This “rising tide lifts all boats” phenomenon is illustrated in Table 20 based on belt use among fatally injured motorists.

**Table 20. Percentage Belted in Selected Subgroups of Fatally Injured Drivers, 1999 and 2006**

Subgroups	Percent Belted Drivers	
	1999	2006
<b>TIME</b>		
DAY	44%	51%
NIGHT	26%	33%
<b>ROAD TYPE</b>		
RURAL	37%	44%
URBAN	43%	49%
<b>ALCOHOL</b>		
ZERO BAC	51%	60%
.08+ BAC	26%	31%
<b>VEHICLE TYPE</b>		
CARS	46%	52%
SUVs	30%	38%
PICKUPS	23%	32%
VANS	39%	51%
<b>AGE OF VEHICLE</b>		
CURRENT MODEL YEAR	41%	56%
1-5 YEARS OLD	43%	50%
6-10 YEARS OLD	43%	44%
11+ YEARS	30%	42%

As indicated in Table 20, belt use increased among all the fatally injured driver subgroups between 1999 and 2006, but it remained relatively low among nighttime drivers (33%), drivers in rural areas (44%), drivers with high BACs (31%), pickup truck drivers (32%), and drivers of the oldest vehicles (42%).

Thus despite its general success, the *Click It or Ticket* mobilizations have had difficulty reaching some portions of the driving population. A report by the GAO (2008) suggests that the belt use message has had trouble reaching populations such as pickup truck drivers and motorists in rural areas. Also, belt use at night, although 27% higher than in 1999, remains relatively low, which is not surprising since *Click It or Ticket* is a daytime program.

In recent years, steps have been taken to reach out to these more resistant populations. Special high-visibility enforcement programs have recently targeted rural residents, pickup truck occupants, and nighttime belt use. Programs in 2005 and 2006 in the Great Lakes Region have provided encouraging results. Over the two-year period, targeted rural areas showed a 9.2percentage point increase in observed belt use (Nichols et al., under review). Programs addressing pickup truck occupants have been carried out in a few NHTSA regions. The Buckle Up in Your Truck program was undertaken in the South Central Region in 2005 and 2006, and region wide median belt use in pickups increased from 60% in 2004 to 76% in 2006. The Central Region implemented the program in 2006 and belt use in pickups advanced from 57% to 65% (Tison et al., 2008). Enforcement programs focusing on nighttime belt use have been shown to increase enforcement and to have the capability of producing modest gains in belt use. One such program in North Carolina and West Virginia cities resulted in an increase in belt use at night from 83% to 91% in Asheville, North Carolina, but minimal changes in Greenville, North Caro-



lina, and Charlestown, West Virginia (Solomon et al., under review). A nighttime enforcement program in Reading, Pennsylvania, raised nighttime use from 50% to 56% (Chaudhary, Alonge, & Preusser, 2005). Smaller scale programs such as these suggest that even resistant populations can be influenced by high-visibility programs.

## IV. THE FUTURE OF CIOT

### FACTORS AFFECTING THE FUTURE OF ENFORCEMENT PROGRAMS

Two factors were explored that could affect how programs are implemented and/or their intensity level. One is structural, a change from 157 Grant Funding to SAFETEA-LU funding, starting in 2006, which gave States more authority to plan their *Click It or Ticket* mobilizations. The other concerns how several years of *Click It or Ticket* has affected the capacity of States to enforce seat belt laws. There may be enforcement fatigue, for example. Alternatively, States may welcome having a familiar “tried and true” program that they can turn to every year.

Some information on these issues was obtained through telephone interviews conducted with representatives from 22 States representing different regions of the country and including a sampling of primary and secondary States. Contacts were made with NHTSA regional administrators and regional program managers, who suggested names of people to interview in the selected States. Interviewees generally included occupant protection managers or highway safety program managers. States providing information were Colorado, Connecticut, Idaho, Illinois, Kansas, Ohio, Michigan, Minnesota, Mississippi, Missouri, North Carolina, North Dakota, Pennsylvania, South Dakota, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

#### SAFETEA-LU Funding

Under prior funding arrangements, States were obliged to follow a seat belt mobilization program that spelled out guidelines for media activities, enforcement participation and techniques, belt use surveys, public awareness surveys, and reporting requirements. States have more autonomy and flexibility under SAFETEA-LU (the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users) in how they participate in seat belt enforcement programs. Instead of a dedicated grant to support the mobilizations, grants are provided to States to administer two high-visibility enforcement campaigns each year to reduce impaired driving and increase belt use. States can use these funds to develop, produce, and broadcast media supporting their campaigns. States provide resources for the seat belt campaign using funding available under S.402 State highway safety grants for programs. Additional funds are available through S.405 occupant protection programs. The S.406 seat belt performance grants encourage the enactment and enforcement of laws requiring seat belt use. Under this grant, a State may use funds for any safety purpose under this title for any project that corrects or improves a hazardous roadway location or feature or proactively addresses highway safety problems. At least \$1 million of the amount received by each State must be obligated for behavioral highway safety issues.

The interviews were not intended to provide full details of any program changes that took place in 2006 (and also 2007 and 2008), but rather to gather overall impressions of the impact of the funding change. Most States have continued to follow the *Click It or Ticket* model recommended by NHTSA, with adjustments in some cases. The main issue for many of the States is that there is less money available for seat belt enforcement under the new funding scheme. In 6 of the 22 States, this was an issue. In most of these States, this meant some cutback in media, and two States noted cuts in money spent on overtime patrols as well. Other States reported no effects on program activities, in some cases indicating that alternative funds to supplement seat belt enforcement had been identified and used. Several States favored the new funding rules, in particular noting the increased flexibility provided and the relaxed reporting requirements.

### **Attitudes Toward *Click It or Ticket* Programs**

Concerning thoughts about *Click It or Ticket*-oriented programs, States were generally supportive, sometimes enthusiastically so. Only in 3 States was there sentiment that the program was no longer of sufficient interest. Some States that supported the approach did note that there were issues. For example, in one State it was reported that officers were less interested than previously because belt use was up and there were now fewer opportunities to give tickets. In another State, it was noted that it was more difficult now to attract media interest in the program because it was “old hat.” However, most States endorsed the program, liking its repetitive nature, noting that it had become a “brand,” officers were used to it and knew the drill, and that the public was supportive. Some States did point out that they made changes each year to maintain interest among officers and the public, often involving changes in how the program was advertised. North Carolina maintains interest among officers by holding planning meetings in attractive locations, such as at a speedway or on a battleship.

In summary, the changes in Federal funding have not weakened program intensity or make less available media dollars for the majority of States. However, for those States that were negatively affected by the change in funding, this weakening is avoidable, as illustrated by the experience of several States. Most States are strongly interested in the *Click It or Ticket* model.

### **MAXIMIZING ENFORCEMENT IN SECONDARY STATES**

To increase seat belt use further, it is important to apply the lessons from this study and from Hedlund et al. (2008), which examined States with high seat belt use. Specifically, enforcement is important. The more seat belt enforcement, the higher the seat belt use rate. Enforcement is particularly important in secondary seat belt enforcement States. Enforcement on a secondary basis is, of course, more of a challenge. States included in the telephone surveys discussed above were chosen to include secondary States with high levels of enforcement (Idaho, North Dakota, Utah, West Virginia, and Minnesota) and those with low levels of enforcement (Pennsylvania, South Dakota, Virginia, and Wyoming). Idaho, Utah, and West Virginia ranked in the top 10 States in citations per capita, besting most primary enforcement States.

Given the constraints of secondary seat belt enforcement, it is important to have laws and policies that facilitate enforcement to the extent possible. In Pennsylvania, the State with the lowest level of enforcement intensity, the law states that tickets have to be written on the primary violation that triggered the stop before a seat belt citation can be issued. In Virginia, another State with weak enforcement, the law does not require the officer to write a ticket for the primary stopping charge. However, it is State Police policy to do this and many other law enforcement agencies have adopted this practice. Whether accomplished by law or policy, this practice greatly inhibits seat belt enforcement (see the case studies in the next section).

In all the other secondary States surveyed, tickets do not have to be written on the primary stop. In such cases, enforcement levels appear to be primarily a matter of how high a priority belt use is, effective belt program management, relationships with law enforcement command and officers Statewide, and police leadership. In West Virginia and Minnesota, competition among police officers and agencies is fostered. West Virginia in 2003 gave out over \$100,000 in awards in their belt use competition. Creative techniques are also used for stopping vehicles in high use States. In Utah, vehicles with unbelted occupants and no front license plates were stopped and ticketed, although this practice has stopped since lack of a license plate is no longer considered a primary offense. More typically, vehicles going somewhat over the speed limit are stopped so that a seat belt citation can be issued.

While it is difficult to achieve high enforcement levels in secondary States, it is not impossible. Instead, as several States have shown, it is a matter of priority.

Unfortunately, in several secondary States that have achieved high belt use, the telephone interviews indicated that this accomplishment has been put forth as rationale for remaining a secondary State. The second lesson learned from the present study is the importance of moving from secondary to primary status as a means of producing further increases in seat belt use.

## V. CASE STUDIES

### IDAHO

#### Background

Idaho has a population of about 1.5 million. Median age is 34.3 years with 27% of the population under 18 and 12% being 65 or older. Ninety-three percent of people reporting only one race declared themselves as White, 1% as Native, and 0.5% as African American. Two percent reported two or more races and 10% reported a Latino/Hispanic background (of any race).

Less than a third of the population lives in cities of over 40,000 people. Population centers are Ada/Canyon Counties (Boise area) (363,000), Idaho Falls and Pocatello in Eastern Idaho (110,000), Coeur d'Alene in Northern Idaho (37,000), and Twin Falls in South Central Idaho (37,000). A large part of the State's economy is resource-based including agriculture, forest products and mining. High-tech industries, tourism, health care and business services are growing in importance. Average commute time is approximately 20 minutes.

Occupant protection programs are administered by the Highway Safety Office within the Office of Highway Operations and Safety within the Idaho Transportation Department. The Highway Safety Manager and Coordinator have responsibility for occupant protection.

The State's first seat belt law was enacted in 1986. It was a secondary law with many exemptions and a \$5 fine. There were many attempts to improve the law over the years, but the first significant improvement was in 2003. Improvements included removal of the requirement to issue a citation for the stopping violation, application to all seating positions, requiring that court costs be paid by drivers under 18, and increasing the fine to \$10. The additional \$5 goes to the State Catastrophic Health Care Cost Fund. Subsequent attempts to make further improvements have been unsuccessful.

There is no majority political support for a primary law and the current political climate is resistant to heavy enforcement messages. Because of this political climate, Idaho's theme is *Click It, Don't Risk It* instead of *Click It or Ticket*.

As measured by seat belt citations issued during May mobilizations, Idaho was the secondary State with the highest level of seat belt enforcement activity from 2003 to 2006, and was second in the Nation for belt use increase between 2002 and 2006 based on belt use observation surveys.

#### How Idaho Achieved 80% Belt Use

Although Idaho passed its secondary seat belt law in 1986, the observed use in 1999 was less than 58%. Seat belt use increased modestly to 63% by 2002, and began a period of rapid growth that peaked at 80% in 2006. As shown in Table 21, seat belt use rose rapidly, coincident with increased occupant protection funding. Key contributing factors appear to be improvements in the seat belt law that facilitated enhanced enforcement and periods of intense high-visibility enforcement between 2002 and 2005.

**Table 21. Funds Expended and Seat Belt Use**

Year	Funding	Daytime Belt Use	
		Observed	FARS
<b>1999</b>	\$293,383	57.9%	30.9%
<b>2000</b>	\$447,514	58.6%	41.0%
<b>2001</b>	\$274,000	60.4%	38.0%
<b>2002</b>	\$325,809	62.9%	42.9%
<b>2003</b>	\$507,522	71.7%	49.6%
<b>2004</b>	\$1,013,209	74.0%	53.8%
<b>2005</b>	\$924,175	76.0%	44.0%
<b>2006</b>	\$469,391	79.9%	54.1%
<b>2007</b>	\$345,720	78.5%	53.8%
<b>2008</b>	n/a	76.9%	n/a

### **Improvements in the Seat Belt Law**

Passage of the new seat belt law in 2003 was of crucial importance. The new law doubled the fine to \$10, made belt use in all seating positions mandatory, required that court costs be paid by cited drivers under 18, and made it so that a ticket didn't have to be written for the primary cause of the traffic stop.

Enforcement personnel stress the importance of relief from the need to ticket for the stopping charge when the seat belt law is a secondary law. When officers must write for the probable cause of the traffic stop, the threshold for enforcement of the seat belt law is much higher since many officers do not typically cite for minor violations such as going one or two miles over the speed limit. Under the new law, an officer can make traffic stops for going one mph over the limit, and cite for nonuse of belts. This provided a big boost to enforcement in Idaho, and there is evidence that police officers were able to make good use of this law change.

Partnerships built in the several years preceding the change in the law may have contributed to its adoption. One noteworthy partnership was with the Injury Prevention Program at the Idaho Department of Health and Welfare that conducted a major media advocacy effort making seat belt nonuse a societal issue, not a personal choice issue. Health districts staged events, gave presentations to businesses and community groups, and wrote op-ed pieces or letters to the editor. The dominant theme of the effort was "Seat Belts are a matter of dollars and sense".

### **Mobilizations**

From 2000 through February 2003, the Highway Safety Office funded monthly saturation patrols by State, city, and county law enforcement agencies as well as funding the national mobilizations. A temporary drop in Section 157 Innovative and Incentive Funds in Federal fiscal year 2002 and a change in strategy to make enforcement more visible through use of paid media led to a shift of support to fewer, more highly publicized mobilizations. Monthly saturation patrols were dropped while more paid media and enforcement were focused on the national mobilizations. Statewide mobilizations have been expanded to DUI and aggressive driving mobilizations throughout the year.

There were three mobilizations in calendar 2003 – one that coincided with the national campaign in May, one concurrent with the effective date of the new law in July, and a third mobilization in November. In 2004, there were two campaigns – one in May and the next in Septem-

ber. The September mobilization was coordinated with Washington State, Oregon, and British Columbia. The next mobilization was six months later in February 2005. This was followed by the largest mobilization ever, in May 2005, and a smaller effort in November 2005. The next was in May 2006. Cumulatively, the eight mobilizations between May 2003 and December 2005 generated an unprecedented level of high-visibility enforcement (see Table 22). In that span of time, there were over 34,000 hours of enforcement that generated more than 49,000 seat belt citations.

**Table 22. Seat Belt Mobilizations**

	<b>Agencies</b>	<b>Enforcement Hours</b>	<b>Citations</b>
<b>May 2002</b>	32	1,496	1,642
<b>May 2003</b>	40	1,167	1,206
<b>July 2003</b>	40	2,525	3,884
<b>November 2003</b>	29	1,800	3,047
<b>May 2004</b>	59	8,000	9,865
<b>September 2004</b>	26	3,031	4,351
<b>February 2005</b>	23	2,493	4,263
<b>May 2005</b>	77	7,897	10,501
<b>November 2005</b>	26	2,800	4,500
<b>May 2006</b>	41	3,490	6,400

### **Law Enforcement Participation**

Law enforcement liaisons (LELs) have played a major role in activating agencies to participate in the mobilizations. At present, there are six regional liaisons. Although arrangements for LELs have evolved, the current LELs are all active duty police officers. Their agencies are compensated under contract for time and expenses.

In recent years, the Highway Safety Office has been able to supplement the law enforcement effort on seat belt mobilizations beyond grant-funded overtime patrols through an equipment incentive program. Agencies earn points for providing dedicated enforcement hours on non-overtime patrols during mobilizations. During the May 2005 mobilization, for example, the majority of enforcement hours were paid for as overtime, but the office also provided 31 radars, 6 laser radars, and 6 speed monitors. Of 77 agencies that participated in the campaign, 49 were grant-funded and the rest were voluntary.

Idaho officers have no problem finding probable cause for traffic stops. One officer said that he seldom sees a seat belt violation where he can't find probable cause for a stop. Speed is the most frequent violation but there are many other violations to look for including having a renewal sticker in the wrong location on the license plate, excessively tinted glass, or a cracked windshield. Actually, a seat belt violation is the only Idaho traffic law violation that does not allow for primary enforcement. One interesting patrol tactic was a stationary patrol at a corner where motorists frequently committed lane violations while turning. Another interesting tactic was the use of two officers in a car, one looking at seat belt use and the other looking for probable cause for a stop. According to the officers who used this tactic, they were more productive than they would have been working separately.

## **Media Support**

While it appears that there has been a great deal of effort to generate earned media coverage of Idaho's seat belt mobilizations and paid media is concentrated during the mobilizations, enforcement has seldom been the sole primary message of the State's paid media efforts. The conventional wisdom in Idaho is that messages based solely on enforcement would not be effective because the State has a secondary law with a low fine. Before 2002, the message was *Start Smart...Buckle Your Belt*. While the theme changed to *Click It, Don't Risk It* in 2002, *Click It or Ticket* has never been used. In 2002, TV and radio ads featured a weightlifter who talked about how he could not protect himself in a crash without a seat belt. Advertising in 2003 was more enforcement-oriented, focusing on the new seat belt law. A family values message – the importance of setting a good example to children by buckling up – was used in 2004. In 2005, the theme was the societal cost of not buckling up.

## **The Idaho Seat Belt Coalition**

The coalition evolved from a Highway Safety mailing list. It became a formal organization in 2006. It was part of the overall effort to increase seat belt use by building partnerships to share the message. It was also consistent with the Idaho Transportation Department's Strategic Highway Safety Plan, which identifies the lack of seat belt use as a priority for the State. Regional meetings and video conferences were held. When last updated, the membership list included more than 250 individuals representing law enforcement, emergency responders, doctors, hospitals, government agencies, insurance companies, educators, and private citizens.

One of the coalition's activities was a display of 167 pairs of empty shoes representing all the people who were killed in car crashes the previous year. Events at which the shoes were displayed were held at six regional locations around the State to promote media interest. A local victim's story or "saved by the belt" story was featured at each location. One of the events was on the statehouse steps.

The coalition may have been influential in the passage of an improved child passenger safety law in 2006 that increased the age requirement for safety seats to 6 years and removed weight from the criteria. In 2007, the group advocated a bill that would have removed the nursing baby exemption and another that would have increased the fine to \$25. Although both bills passed the Senate, they were not heard in the House. The group is currently being reactivated as a broader Highway Safety Coalition with a statewide steering committee and regional task forces.

## **Recent Declines in Seat Belt Usage**

The observed seat belt use rate peaked at 79.8% in 2006 and declined to 78.5% in 2007, declining further to 76.9% in 2008. This reflects a major loss in funding for occupant protection programs under SAFETEA-LU, from close to \$1 million in 2004 and 2005 to less than half of that for 2006. Expenditures declined further to \$346,000 in 2007.

There are several theories about why the observed belt use rate continued to rise in 2006. One theory is that the rate continued to rise on the momentum created in 2004 and 2005. There were three seat belt mobilizations in 2005, resulting in nearly 20,000 seat belt tickets, the last of them in November. Despite lower citations in May 2006 than in the prior two years, Idaho was still ranked second among States in citations per capita. An Aggressive/Youthful Driver mobilization, which occurred between the May seat belt mobilization and the 2006 survey, may have affected results. Another theory is that although there was a good deal less paid media in 2006, there were many earned media stories because of the Seat Belt Coalition's efforts and the empty shoes events.



The reduction in expenditures for Idaho's seat belt program reflects the change in Federal funding when SAFETEA-LU replaced TEA-21. The funding for the large expenditures on occupant protection under TEA-21 came primarily from Section 402 funds, which were supplemented by Section 157 innovative, and incentive grants. These were further augmented by a Section 403 Demonstration Project to increase seat belt use in rural areas of the State. Under SAFETEA-LU, Idaho does not qualify for Section 405 money (because the fine is not \$25 or higher, the law is not primary, and there is a nursing-baby exemption in the child passenger safety law). It also does not qualify for Section 406 money because it does not meet the requirement of having a primary law or achieving 85% belt use for two successive years.

Idaho is one of the lowest funded States in the country for NHTSA highway safety funds (the third lowest in 2007 and 2008). This is large part due to its inability to qualify for occupant protection funds under SAFETEA-LU. Because its funds are so limited and the seat belt fine is so nominal, Idaho has shifted some of its Section 402 funds to the aggressive driving program. With a significant fine structure starting at \$75, the Highway Safety Office believes that aggressive driving enforcement has a higher likelihood of achieving results. As evidence that this may have been a good strategy, the State argues that traffic deaths hit their lowest number in 13 years with 252 fatalities in 2007 (down from 269 in 2006), and the fatality rate was the lowest in the last 30 years. Still, 65% of occupants killed in traffic crashes in Idaho in 2007 were not buckled up and the percentage of unbelted fatalities is increasing once again.

The extent to which support for seat belt mobilizations has declined can be seen in the statistics for the May 2008 mobilization. Only 32 agencies participated, compared to 77 in May 2005. Only 2,293 seat belt tickets were issued, compared to over 10,000 in 2005.

## **OHIO**

### **Background**

Ohio has a population of 11.5 million. Median age is 37.6 years with 24% of the population under 18 and 13% being 65 or over. Eighty-four percent of people reporting only one race declared themselves as White, 12% as African-American, and 1.5% as Asian-American. One and a half percent reported two or more races and 2% reported a Latino/Hispanic background (of any race).

Although Ohio is a highly industrialized State with several major population centers, large proportions of the land area and public roads are in rural areas. Eighty-four% of Ohio workers drove to work alone in 2005. Only 8% carpooled and 2% used public transportation. The remainder either worked at home or used other means of transportation to work. Average commute time is about 22 minutes.

The Ohio Traffic Safety Office – formerly the Governor's Highway Safety Office – reports through the Ohio Department of Public Safety, which also has responsibility for the Emergency Management Agency, Emergency Medical Services, Ohio Homeland Security, Ohio Investigative Unit, Office of Criminal Justice Services, Ohio Highway Patrol, and the Bureau of Motor Vehicles. Organizational components of OTSO include Federal programs, driver training, the Motorcycle Ohio Program, traffic statistics, and administration.

The Ohio seat belt law has been in effect since 1986. It is a secondary law, and the fine for a seat belt violation is \$30 for drivers and \$20 for passengers. Although a few attempts have been made to make the law primary, there has been relatively little legislative activity over the years. One recent change was part of the graduated driver licensing law. The GDL requires young

passengers to be buckled up in any seating position. A 2007 law change prohibits police from issuing citations for violations witnessed at checkpoints in the absence of a primary violation.

Ohio improved its observed belt use rate from 65.3% in 2000 to 82.7% in 2008. Ohio ranked 28<sup>th</sup> in the country on 2006 observed belt use rate and ranked 15<sup>th</sup> on the level of change from 2002 to 2006. Belt use rate in fatalities also increased between 1999 and 2006, before dropping off slightly in 2007 (see Table 23).

**Table 23. Seat Belt Use Rate, 1999-2008**

Year	Daytime Belt Use	
	Observed	FARS
1999	64.8%	44.9%
2000	65.3%	45.5%
2001	66.9%	46.2%
2002	70.3%	44.5%
2003	74.4%	46.3%
2004	74.1%	47.8%
2005	78.7%	50.0%
2006	81.7%	52.2%
2007	81.6%	49.4%
2008	82.7%	n/a

### **How Ohio Improved Belt Use**

The staff at the Traffic Safety Office believes that the State has achieved high seat belt use by being persistent in pursuing both education and high-visibility enforcement. In addition to robust implementation of national enforcement mobilizations, the office has funded extensive educational outreach activities through Safe Community Programs, faith-based groups, and corporate partners. They describe what they do as “social marketing”.

Since the advent of *Click It or Ticket*, the State has followed a strategy of dual branding of occupant protection programs. *Click It or Ticket* is promoted mostly during enforcement mobilizations and *What’s Holding You Back* is used throughout the year.

### **Mobilizations**

Ohio launched its first seat belt campaign in over a decade in 2001. At the time, the slogan *Click It or Ticket* was not deemed appropriate for Ohio, so the State emulated the Oklahoma Highway Safety Office theme of *What’s Holding You Back*. The campaign components included paid media, earned media, law enforcement waves, and evaluation – all the elements of the *Click It or Ticket* concept. The first wave, in May 2001, included 452 participating agencies and resulted in 2,546 adult restraint citations. The second wave, conducted in August/September 2001, included 569 participating agencies and resulted in 3,673 adult seat belt citations.

Two waves of *What’s Holding You Back* Mobilizations were implemented in 2002. The number of participating agencies reached 758. The May mobilization resulted in 14,718 seat belt tickets and the August wave resulted in 16,354 citations, totaling more than 31,000 seat belt citations across all waves.

From 2003 on, consistent citation statistics are available only for the May mobilizations (see Table 24 for details), although seat belt enforcement has been one of the objectives for DUI, speed, and other mobilizations throughout the year. In addition, seat belt enforcement is always a high priority for the Ohio State Highway Patrol. In 2001, for example, it accounted for 11,000 of the 19,000 tickets issued by all agencies.

**Table 24. Seat Belt Mobilization Results**

	<b>Participating Agencies</b>	<b>Reporting Agencies</b>	<b>Enforcement Hours</b>	<b>Adult Citations</b>
<b>May 2002</b>	548	n/a	n/a	14,718
<b>August 2002</b>	758	n/a	n/a	16,364
<b>May 2003</b>	698	n/a	71,048	20,650
<b>May 2004</b>	646	390	72,931	14,293
<b>May 2005</b>	827	440	94,119	17,159
<b>May 2006</b>	879	535	97,823	*19,981
<b>May 2007</b>	858	521	124,880	20,498
<b>May 2008</b>	938	637	127,675	n/a

\*Revised downward from 39,963 reported to NHTSA in error.

### **Law Enforcement Participation**

In 2008, there were about 1,093 law enforcement agencies in the State. Of these, 63 are State Police patrol districts, 88 are county sheriffs departments, 791 are town or city police, and 151 are other agencies. In 2008, 938 indicated that they would participate, and 637 actually reported results. As shown above in Table 24 above, there has been a substantial increase in the number of reporting agencies and enforcement hours since 2003.

The hiring of Law Enforcement Liaison (LEL) personnel to recruit and motivate police departments across the State has been a major factor in activating agency participation in the seat belt mobilizations. The first LEL came on board in 2002. At present, there are four regional LELs and an LEL coordinator, all retired police officers who have been on the job since 2003. Their influence has grown markedly over the years, resulting in increased participation.

Relatively few (less than 100) of the 1,093 law enforcement agencies in the State receive funding for extra seat belt patrols. Over 800 don't qualify for any kind of funding based on problem identification. To get as many agencies as possible to participate, the Highway Safety Office allocates about \$300,000 for participation incentives. Agencies that participate in both the seat belt mobilization and the DUI crackdown are eligible for these incentives. For instance, two police cruisers are given away at a drawing held at an interesting venue such as a baseball game. Agencies that satisfy criteria set by the office are entered into the drawing. The rest of the money is used to buy equipment such as speed radars and portable breath testers that are distributed to other agencies that qualify. The equipment is distributed fairly equally among the participating agencies that meet the requirements of signing up and reporting enforcement hours and results. Some agencies choose to participate without any incentives.

Questioned about techniques used to issue as many seat belt tickets as possible during the mobilizations, the LELs said that police look for any kind of violation that will give probable cause for the stop. As a practical matter, the most frequent stopping violation is speed, because it is the most frequent violation seen. Stops are only rarely made for speeds that are less than 10 mph over the speed limits. On the interstate highways, most of the tickets are for speeding over 80 mph (the limit is 65 mph).

Until 2007, a large number of seat belt tickets were issued at DUI checkpoints during the fall crackdown. However, legislation was passed in 2007 that expressly prohibits such an action, unless there is another offense. Agencies relying on this strategy for their nighttime seat belt enforcement no longer have this option, resulting in a lower number of citations issued during nighttime enforcement of belt use.

### **Problem Identification**

Ohio pays a lot of attention to data collection and analysis in order to get detailed information that allows it to target enforcement and educational efforts to the groups at greatest risk. As part of their contract, all grantees are required to conduct seat belt use observations. Each Safe Community grantee is required to do observations at 19 sites at specified times during the year. The number of observations was determined as the minimum number to represent a county by the State's contractor for the official observations. Law enforcement agencies must also do observations, but only at three sites. The purpose of these observations, which are in addition to the official State survey, is to give detail at the county level (some counties are not included in the State's official sample sites) and to facilitate goal setting and results measurement for the grantee.

### **Paid Media**

Since the beginning of the May Mobilizations in 2002, Ohio has supported enforcement efforts with media expenditures ranging from \$500,000 to \$850,000 (Table 25). When the change in Federal funding legislation allowed the State more flexibility in deciding how much funding should support seat belt mobilizations, NHTSA encouraged Ohio to maintain the level of enforcement and media expenditures that they had under the previous funding legislation. For the most part, Ohio has done that. In 2008, media expenditures for the May mobilization were cut back slightly, but were shifted toward more year-round seat belt advertising.

**Table 25. Media Expenditures**

<b>Year</b>	<b>Paid Media</b>
<b>2002</b>	\$ 723,107
<b>2003</b>	\$ 827,000
<b>2004</b>	\$ 850,000
<b>2005</b>	\$ 608,847
<b>2006</b>	\$ 637,323
<b>2007</b>	\$ 808,847
<b>2008</b>	\$ 530,036

OTSO believes that paid media has been one of the crucial factors resulting in increased seat belt use during the *Click It or Ticket* years. The State's media carefully targets audiences with low belt use. In addition to conventional mass media such as radio and TV, OTSO used less conventional media tailored to the audiences it is trying to reach. Affiliations with professional sports teams have been particularly useful. Professional teams often give over 10 times the exposure paid for, compared to more traditional media like TV and radio. The demographics of the Ohio baseball teams are also particularly good. Cincinnati Reds fans are heavy on rural pickup drivers and the Cleveland Indians fan base is richer in inner city residents, who also have low seat belt use. Other elements in the media mix to reach targeted audiences are bus shelters and theatre trailers in rural areas.

### **Earned Media**

The Traffic Safety Office has its own media relations director, who puts a lot of effort into obtaining news coverage on both local and State levels. She personally does as many interviews as possible with radio and TV outlets. Law enforcement agencies and Safe Community

Programs also contact the media in their areas and each grantee is required to report on its local news coverage. The media relations director believes coverage is obtained on just about all of the major TV and radio outlets, although it is reportedly more difficult to get coverage for seat belt enforcement than DUI enforcement. She attributes the difficulty getting media interest in seat belt enforcement to the fact that Ohio has a secondary law.

*Click It or Ticket* gets a lot of exposure through distribution of collateral material by participating law enforcement agencies and Safe Community Programs. One of the popular items in 2008 was a magnetic CIOT sign that could be applied to vehicles such as police cars or used as refrigerator magnets. About 25,000 were distributed last year and many of them went on UPS trucks and fleet vehicles belonging to other partners. Next year, they plan to buy large magnetic signs using the CIOT Day/Night logo.

### **Great Lakes Region Rural Demonstration Program**

The States in NHTSA's Great Lakes Region agreed to work cooperatively in 2005 and 2006 on a project designed to increase seat belt use in rural areas that are over-represented in crashes and fatalities. Ohio's program was larger than most of the other Great Lakes Region programs, encompassing 16 counties. Some of the original programs only ran one year, but given the success of the first year, Ohio decided to continue it for a second year. The State spent just over \$300,000 in 2005 and nearly \$184,000 in 2006. The bulk of the expenditure was for paid media targeted to 18- to 34-year-old rural male drivers. Most of the broadcast media was timed to air during the two weeks before the May Mobilization media. In places where media bled over into non-rural markets, the effect was that of a prolonged May Mobilization.

The primary targets of the rural demonstration project were occupants of pickup trucks. This group has a significantly lower observed belt use rate than the general population. The challenge was to change the widely held beliefs that you are safer in a pickup than in a car and that country roads are safer than highways or city streets. It led to use of the "Buckle Up in Your Truck" message in rural areas.

It is difficult and expensive to target rural populations. A unique and efficient method was the use of rural school bus shelters equipped with a retro-reflective *Buckle Up in Your Truck* billboard showing the message at all times. Showing Buckle Up In Your Truck movie trailers in rural theatres was another unique approach to get the message to rural population. This strategy was also used for *Click It or Ticket* videos that NHTSA provided.

It should be noted that the Ohio State Highway Patrol placed special emphasis on seat belt enforcement and law enforcement liaisons enlisted participation of local enforcement agencies in the targeted counties during the period that rural media was running. However, no specific funds were provided for overtime patrols during the period. Pre- and post-campaign observational surveys indicated an 8-percentage-point increase in the targeted counties in 2005, and a 5-percentage-point increase in 2006.

### **Partnerships**

In addition to law enforcement agencies, an important partner to promote seat belt use is the Safe Community Program. Ohio has 30 Safe Community Programs, mostly in health departments or hospitals that have Highway Safety grants from the Highway Safety Office. When these programs first began, each program more or less proposed its own agenda. Over the years, the program has evolved to be much more prescriptive with the Highway Safety Office specifying what must be done to get a grant. The programs are very valuable in organizing community

events and getting local earned media. They also are major distributors of Highway Safety material such as brochures and banners.

A new demonstration program, initiated in 2008, targeted a low-seat belt use county (Cuyahoga) through a \$50,000 grant to the Safe Community Program at the Injury Prevention Center at University Hospitals Case Medical Center. Cuyahoga County has a population of 1.4 million, the largest in the State. The OTSO funding is leveraged by in-kind contributions by the Injury Prevention Program's partners in the community. The grant funds enhanced media and traffic enforcement during the 2008 *Click It or Ticket* mobilization

The John Deere Company has been one of the many private partners that helped promote belt use in Ohio during the Rural Demonstration project. In addition to in-store promotion in their 136 rural dealerships, John Deere gave away a tractor at a Cleveland Indians/Cincinnati Reds game, to appeal to all parts of the State. The way the promotion worked was by issuing "good citations" to people who were spotted wearing seat belts. About 4,000 such citations were sent out to rural law enforcement agencies that promised to participate in the event. The "good tickets" could be brought to a dealer to enter a drawing for game tickets and a chance to win the tractor.

A partnership with a faith-based group was used to target racial minorities in urban areas. The group was affiliated with over 100 churches in urban areas throughout the State. Promotional material included posters to be shown in and around the churches and bookmarks for Bibles that said *Buckle Up Religiously*. Pastors were encouraged to imbed the importance of seat belt use in their sermons.

Uniformed police officers from local law enforcement agencies made 30-minute presentations to third grade students about the importance of wearing seat belts. Each student received material including a pledge card, activity book, bookmark, and a seat belt badge. Upon completing the class, each student was sworn in as an Ohio Seat Belt Deputy. The program has been in the State's Traffic Safety action plan for approximately 20 consecutive years. The annual cost of about \$250,000 is State-funded by seat belt fines.

## **VI. DISCUSSION**

During the 2000-2006 period when high-visibility seat belt enforcement mobilizations were in operation in the United States, belt use increased nationwide and in virtually all States. This was the case for observed belt use, belt use in fatalities, and self-reported seat belt use. As enforcement programs continued across the country and belt use increased, public awareness and attitudes changed as well. Further, telephone surveys indicated that awareness of enforcement activities increased over this period.

### **STATE DIFFERENCES AND THE IMPORTANCE OF ENFORCEMENT**

A major task of the study was to identify States that had the largest increases in seat belt use over the study period, based on observed belt use and belt use in fatalities, and to understand why some States did better than others did. There was substantial variation among States in belt use improvement rates during 2000-2006, and thus it is important to learn what the factors are that distinguish the more successful States. Amount of enforcement appears to be the key factor, especially in secondary enforcement States. The clearest and most consistent finding in this study was that secondary States with the greatest improvements in seat belt use had much greater levels of enforcement than secondary States with the least change; three to four times as many citations per capita. In contrast, the amount of dollars spent for media was at best inconsistently related to improvements in belt use. In most comparisons, there was no difference in changes in seat belt use in relation to the dollars spent on media. In one case, there was a positive correlation between the ranking of change in seat belt use and the ranking of media dollars per capita. The weight of the evidence indicates that dollars spent for media is not as influential as enforcement in achieving improvements in belt use.

Note, however, that the media dollars referred to here are the additional dollars that the States spent over and above the national campaign. Very different findings could have emerged had the national media campaign, which carried the *Click It or Ticket* message, not been in place across all States. An additional limitation lies in the fact that estimates for the States media purchases are vague at best. Tison et al. (2008) note that “a dollar spent in a particular designated media market area (DMA) for a given period of time would not necessarily be as valuable in another DMA.” Other troubles with assessing the impact of media on awareness include the possibility of paid media in one area “bleeding” over to surrounding geographical areas. Moreover, the overall awareness of the program is undoubtedly related to both paid and earned media. Although it is generally agreed that paid media makes a stronger impact, the additional impact of earned media on awareness has not been assessed in this report due to lack of standardization in reporting.

### **THE IMPORTANCE OF PRIMARY LAWS**

Study results also affirm the importance of laws that have primary enforcement status. Both primary and secondary States experienced quite similar increases in belt use over the 2000-2006 periods, and the States ranking highest on improvements in belt use included about an equal mixture of primary and secondary States. However, primary States began with substantially higher seat belt use on average than secondary States, and levels of enforcement (though not media) were greater in primary States. Telephone surveys indicated that residents of primary States were more likely to think they would be ticketed for nonuse, and there were larger increases in recognition of enforcement likelihood in primary States over the study period.

### Comparison With the “Best States” Study

It is informative to consider the results of a recent study that identified States with the highest belt use and attempted to ascertain how these high rates were achieved (Hedlund et al., 2008). Using 2005 data, 16 States with the highest rates were selected, based on observed use and use among fatally injured occupants, and compared with the 15 States with the lowest rates. This was largely a comparison of primary States with high rates (13 of the 16 in the top group were primary) and low-use secondary States (14 of 15 were secondary). There was some overlap among the low-use States in the Hedlund et al. study and the least-change 2002-2006 groups in the present study, with 8 of the 15 States on both lists. However, only 4 of the 16 States that were in the highest use group were in the top 16 most-change group in the present study. Interestingly, the conclusions of what produced the differences in high- and low-belt-use groups are similar in the two studies. According to Hedlund et al., “The statistical analyses suggest that the most important difference between the high- and low-belt-use States is enforcement, not demographics or funds spent on media.” In fact, media dollars spent per capita were higher in the low-use States than in the high-use ones. However, enforcement levels as measured by citations per capita were about twice as high in the top group of States. These studies point to the importance of enforcement in achieving high seat belt use, in general, and in increasing seat belt use in secondary States.

### CUMULATIVE EFFECTS

The results discussed above document the changes in State seat belt use rates that took place during the 2000 to 2006 period and the factors influencing these changes. However, the intent of the study was to determine the cumulative effects of the successive mobilizations undertaken from 2000 to 2006. Summed up, what was the overall effect of these programs and how does the result match up with expectations?

In posing the question of what the “cumulative” effects are, there is clearly expectation in this term that effects on seat belt use should be building. Ideally, a ratcheting effect on seat belt use is created, wherein seat belt use rises during the special enforcement, drops back some under normal enforcement, then ratchets higher with subsequent enforcement waves. There is some evidence from State data that this occurred (see Table 2), and the gradual rise in the national use rate over the period is compatible with this effect, until 2006 when program intensity declined and belt use did not increase from the prior year.

An alternative view is that successive enforcement programs can get a State to a certain level and then sustain that level. In truth, the United States achieved remarkable gains in seat belt use in the 21<sup>st</sup> century, from the mid-60% range in observed belt use in the late 1990s to 83% currently.

It is interesting and perhaps instructive to note that other jurisdictions running successive seat belt enforcement programs have hit the 80% barrier. This happened in Elmira, New York, and in North Carolina, the original *Click It or Ticket* State. After the first round of *Click It or Ticket* in North Carolina, belt use reached 80%, but it barely went past that in the next several years of intensive enforcement waves, generally reaching 82 to 83% and dropping back to the high 70% range in interim periods. The same pattern occurred in Canada during initial years of enforcement, prompting one of the leaders of these programs to comment that “an 80% wearing rate may be all that can be expected of enforcement alone” (Jonah & Grant, 1985).

Yet, the Canadians continued enforcement programs and eventually broke through the 80% barrier. Therefore, the optimistic view is that enforcement programs in the United States



have not run their course, they still have more potential, and the lesson to be learned is that you have to keep at it. More recently, Iowa continued intensive waves of CIOT enforcement beyond the May mobilization and was able to move belt use from the mid-80% range to over 90% (Chaudhary et al., under review). The proviso is that the programs have to remain intense.

## CONCLUSION

The *Click It or Ticket* seat belt enforcement programs conducted between 2000 and 2006 were an important factor in increasing belt use in the United States. It is also clear that higher level of enforcement intensity maximizes the effectiveness of these programs, and the overall drop in enforcement in 2006 is a concern. Support for *Click It or Ticket* programs remains high in most States, and it is likely that continuation of State programs with high enforcement intensity is capable of producing further increases in belt use. This is the case in both primary and secondary States, and converting secondary States to primary enforcement status would be expected to add to these gains. Penalties for nonuse of seat belts are low in many States, and there is suggestive evidence that augmented penalties would also help to increase belt use. The increasing presence of belt reminder systems in vehicles and their eventual penetration into the older vehicle fleet will also help. However, the centerpiece of efforts to increase seat belt use beyond 80% nationally are *Click It or Ticket* programs aimed at the general driving population, supplemented by special programs targeting low-use groups.

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**Appendix A. Statewide Observed Belt Use Rates,\* 2000-2006**  
**(Source: National Center for Statistics and Analysis, NHTSA)**

State or Territory	2000	2001	2002	2003	2004	2005	2006
Alabama	70.6%	79.4%	78.7%	77.4%	80.0%	81.8%	82.9%
Alaska	61.0%	62.6%	65.8%	78.9%	76.7%	78.4%	83.2%
Arizona	75.2%	74.4%	73.7%	86.2%	95.3%	94.2%	78.9%
Arkansas	52.4%	54.5%	63.7%	62.8%	64.2%	68.3%	69.3%
California	88.9%	91.1%	91.1%	91.2%	90.4%	92.5%	93.4%
Colorado	65.1%	72.1%	73.2%	77.7%	79.3%	79.2%	80.3%
Connecticut	76.3%	78.0%	78.0%	78.0%	82.9%	81.6%	83.5%
Delaware	66.1%	67.3%	71.2%	74.9%	82.3%	83.8%	86.1%
Dist. Of Columbia	82.6%	83.6%	84.6%	84.9%	87.1%	88.8%	85.4%
Florida	64.8%	69.5%	75.1%	72.6%	76.3%	73.9%	80.7%
Georgia	73.6%	79.0%	77.0%	84.5%	86.7%	89.9%	90.0%
Hawaii	80.4%	82.5%	90.4%	91.8%	95.1%	95.3%	92.5%
Idaho	58.6%	60.4%	62.9%	71.7%	74.0%	76.0%	79.8%
Illinois	70.2%	71.4%	73.8%	80.1%	83.0%	86.0%	87.8%
Indiana	62.1%	67.4%	72.2%	82.3%	83.4%	81.2%	84.3%
Iowa	78.0%	80.9%	82.4%	86.2%	86.4%	87.1%	89.6%
Kansas	61.6%	60.8%	61.3%	63.6%	68.3%	69.0%	73.5%
Kentucky	60.0%	61.9%	62.0%	65.5%	66.0%	66.7%	67.2%
Louisiana	68.2%	68.1%	68.6%	73.8%	75.0%	77.7%	74.8%
Maine	n/a	n/a	n/a	n/a	72.3%	75.8%	77.2%
Maryland	85.0%	82.9%	85.8%	87.9%	89.0%	91.1%	91.1%
Massachusetts	50.0%	56.0%	51.0%	61.7%	63.3%	64.8%	66.9%
Michigan	83.5%	82.3%	82.9%	83.9%	90.5%	92.9%	94.3%
Minnesota	73.4%	73.9%	80.1%	79.4%	82.1%	83.9%	83.3%
Mississippi	50.4%	61.6%	62.0%	62.2%	63.2%	60.8%	73.6%
Missouri	67.7%	67.9%	69.4%	72.9%	75.9%	77.4%	75.2%
Montana	75.6%	76.3%	78.4%	79.5%	80.9%	80.0%	79.0%
Nebraska	70.5%	70.2%	69.7%	76.1%	79.2%	79.2%	76.0%
Nevada	78.5%	74.5%	74.9%	78.7%	86.6%	94.8%	91.2%
New Hampshire	n/a	n/a	n/a	49.6%	n/a	n/a	63.5%
New Jersey	74.2%	77.6%	80.5%	81.2%	82.0%	86.0%	90.0%
New Mexico	86.6%	87.8%	87.6%	87.2%	89.7%	89.5%	89.6%
New York	77.3%	80.3%	82.8%	84.6%	85.0%	85.0%	83.0%
North Carolina	80.5%	82.7%	84.1%	86.1%	86.1%	86.7%	88.5%
North Dakota	47.7%	57.9%	63.4%	63.7%	67.4%	76.3%	79.0%
Ohio	65.3%	66.9%	70.3%	74.7%	74.1%	78.7%	81.7%
Oklahoma	67.5%	67.9%	70.1%	76.7%	80.3%	83.1%	83.7%
Oregon	83.6%	87.5%	88.2%	90.4%	92.6%	93.3%	94.1%
Pennsylvania	70.7%	70.5%	75.7%	79.0%	81.8%	83.3%	86.3%
Rhode Island	64.4%	63.2%	71.0%	74.2%	76.2%	74.7%	74.0%
South Carolina	73.9%	69.6%	66.3%	72.8%	65.7%	69.7%	72.5%
South Dakota	53.4%	63.3%	64.0%	69.9%	69.4%	68.8%	71.3%
Tennessee	59.0%	68.3%	66.7%	68.5%	72.0%	74.4%	78.6%
Texas	76.6%	76.1%	81.1%	84.3%	83.2%	89.9%	90.4%
Utah	75.7%	77.8%	80.1%	85.2%	85.7%	86.9%	88.6%
Vermont	61.6%	67.4%	84.9%	82.4%	79.9%	84.7%	82.4%
Virginia	69.9%	72.3%	70.4%	74.6%	79.9%	80.4%	78.7%
Washington	81.6%	82.6%	92.6%	94.8%	94.2%	95.2%	96.3%
West Virginia	49.8%	52.3%	71.6%	73.6%	75.8%	84.9%	88.5%
Wisconsin	65.4%	68.7%	66.1%	69.8%	72.4%	73.3%	75.4%
Wyoming	66.8%	n/a	66.6%	n/a	70.1%	n/a	63.5%
Puerto Rico	87.0%	83.1%	90.5%	87.1%	90.1%	92.5%	92.7%
Nationwide	71%	73%	75%	79%	80%	82%	81%

Rates in jurisdictions with primary belt enforcement during the calendar year of the survey are shaded  
\*as measured by NHTSA's National Occupant Protection Use Survey

**Appendix B. Belt Use Rate\* in Daytime Fatalities, by State 2000-2006**  
(Source: FARS)

State or Territory	2000	2001	2002	2003	2004	2005	2006
Alabama	41.3%	52.7%	46.2%	48.5%	49.9%	46.4%	44.6%
Alaska	46.3%	54.3%	64.3%	58.1%	56.3%	56.7%	71.4%
Arizona	44.4%	42.9%	47.4%	48.4%	49.4%	46.7%	45.4%
Arkansas	38.2%	34.6%	36.1%	37.6%	34.8%	36.5%	37.8%
California	66.2%	66.0%	64.2%	67.6%	67.7%	71.2%	71.8%
Colorado	41.4%	46.0%	43.3%	50.3%	50.9%	51.6%	45.2%
Connecticut	46.6%	53.9%	41.6%	55.6%	55.7%	52.9%	63.6%
Delaware	34.1%	43.9%	38.2%	57.4%	59.7%	54.4%	54.1%
Dist. Of Columbia	50.0%	50.0%	71.4%	60.0%	75.0%	50.0%	100.0%
Florida	40.3%	43.5%	44.8%	49.2%	48.9%	47.3%	48.2%
Georgia	46.5%	51.7%	50.6%	50.3%	47.8%	49.3%	49.6%
Hawaii	57.5%	52.5%	57.1%	66.7%	67.6%	71.0%	61.1%
Idaho	41.0%	38.0%	42.9%	49.6%	53.8%	44.0%	54.1%
Illinois	46.6%	47.0%	46.4%	50.6%	56.3%	56.6%	57.0%
Indiana	45.9%	45.3%	52.1%	54.8%	52.6%	52.1%	50.9%
Iowa	55.3%	56.7%	54.8%	56.3%	56.8%	63.5%	63.9%
Kansas	36.2%	32.1%	36.2%	35.7%	44.6%	36.4%	45.5%
Kentucky	37.0%	33.9%	38.5%	35.9%	36.4%	38.7%	36.5%
Louisiana	36.7%	44.8%	42.2%	45.2%	44.4%	46.9%	47.4%
Maine	45.5%	44.3%	54.4%	44.3%	48.2%	46.6%	41.1%
Maryland	61.2%	63.3%	65.9%	60.0%	63.2%	59.7%	66.5%
Massachusetts	37.9%	31.9%	37.5%	41.6%	37.9%	37.5%	40.3%
Michigan	63.1%	63.1%	66.8%	66.8%	68.3%	69.2%	72.8%
Minnesota	42.2%	37.9%	47.6%	52.5%	53.0%	50.6%	55.3%
Mississippi	28.8%	31.9%	31.1%	36.8%	24.8%	29.4%	30.8%
Missouri	34.1%	38.0%	33.8%	39.9%	37.3%	40.6%	36.0%
Montana	40.6%	36.0%	37.2%	36.8%	34.6%	38.0%	36.1%
Nebraska	36.3%	39.6%	35.4%	36.5%	50.9%	42.2%	41.1%
Nevada	42.3%	37.3%	43.3%	42.7%	56.6%	52.4%	53.5%
New Hampshire	19.6%	42.9%	49.2%	29.2%	39.5%	38.8%	21.9%
New Jersey	47.5%	45.9%	50.2%	54.5%	58.5%	60.3%	46.3%
New Mexico	43.6%	50.9%	43.6%	39.6%	48.2%	57.1%	60.9%
New York	61.0%	62.3%	60.7%	65.1%	70.2%	67.0%	62.6%
North Carolina	54.9%	57.7%	54.8%	63.4%	60.7%	57.1%	60.5%
North Dakota	16.1%	37.5%	31.6%	26.1%	36.5%	27.1%	43.9%
Ohio	45.5%	46.2%	44.5%	46.3%	47.8%	49.6%	52.2%
Oklahoma	36.5%	34.9%	46.2%	44.9%	46.1%	46.2%	46.3%
Oregon	69.6%	64.7%	61.9%	67.7%	77.7%	74.6%	71.6%
Pennsylvania	43.2%	40.5%	40.1%	43.7%	46.8%	44.8%	43.7%
Rhode Island	26.7%	33.3%	19.4%	42.9%	35.7%	45.8%	34.8%
South Carolina	44.9%	40.5%	41.8%	41.4%	34.6%	38.5%	46.0%
South Dakota	23.0%	31.1%	37.9%	23.5%	36.7%	27.7%	25.3%
Tennessee	31.7%	34.9%	37.6%	39.7%	42.3%	45.7%	45.3%
Texas	57.4%	56.4%	61.6%	62.3%	65.3%	62.8%	61.3%
Utah	43.3%	45.9%	49.4%	49.4%	44.8%	54.1%	69.9%
Vermont	63.6%	50.0%	42.5%	55.6%	59.2%	44.8%	57.4%
Virginia	44.2%	44.6%	41.5%	42.2%	49.5%	40.9%	47.2%
Washington	45.2%	53.8%	59.2%	65.3%	68.6%	60.8%	61.1%
West Virginia	38.8%	35.1%	41.4%	46.3%	44.5%	42.7%	39.2%
Wisconsin	46.8%	44.0%	45.1%	49.3%	48.5%	46.7%	52.5%
Wyoming	48.7%	32.0%	37.1%	44.1%	42.1%	37.3%	37.1%
Puerto Rico	29.9%	36.4%	44.0%	47.1%	46.3%	43.1%	50.7%
Nationwide	47%	48%	49%	51%	52%	52%	52%

Rates in jurisdictions with primary belt enforcement during the calendar year of the survey are shaded.

\*based on front-seat outboard occupants of passenger vehicles, 15 and older

## Appendix C. ARIMA Analyses

**Table 1. Time Series ARIMA for United States and Fatally Injured: FARS November 1999-December 2006**

<b>Model: 101 100</b>	<b>Estimates</b>	<b>Std Error</b>	<b>t</b>	<b>Approx Sig</b>
Non-Seasonal Lags AR1	.775	.150	5.167	<0.001
MA1	.486	.210	2.312	0.023
Seasonal Lags SAR1	.240	.120	1.984	0.051
Regression Coefficient 2003	<b>.038</b>	.007	5.041	<0.001
Constant	.426	.006	71.659	<0.001

An interrupted time series was run on FARS fatality data with equal pre- and post- time periods (43 months before and 43 months after the CIOT campaign). The model for this ARIMA used AR1, MA1, and SAR1, making the final model (101,100). These results show that FARS fatally injured, front-seat, outboard occupants of passenger vehicles 15 and older have higher re-straint use following the implementation of the 2003 CIOT. The time series analysis was conducted with SPSS 11.5 using the trends module.

**Table 2. Time Series ARIMA for United States and All Injury Levels: FARS November 1999-December 2006**

<b>Model: 100 100</b>	<b>Estimates</b>	<b>Std Error</b>	<b>t</b>	<b>Approx Sig</b>
Non-Seasonal Lags AR 1	.642	.082	7.816	<0.001
Seasonal Lags SAR 1	.254	.120	2.120	0.037
Regression Coefficient 2003	.040	.007	5.652	<0.001
Constant	.617	.006	108.223	<0.001

An interrupted time series was run on FARS data with equal pre- and post- time periods (43 months before and 43 months after the CIOT campaign) for all injury levels including uninjured. These results show that FARS injured (at all levels), front-seat, outboard occupants of passenger vehicles aged 15 and older have higher restraint use following the implementation of the 2003 CIOT. Stationarity for this interrupted time series analysis was achieved by adding two parameters, AR 1 and SAR 1. Thus, the final model was (1,0,0) (1,0,0).

**Table 3. Time Series ARIMA for United States Fatally Injured: FARS January 1994 – December 2006**

<b>Model: 101 100</b>	<b>Estimates</b>	<b>Std Error</b>	<b>t</b>	<b>Approx Sig</b>
Non-Seasonal Lags AR1	.992	.009	104.570	<0.001
MA1	.788	.054	14.665	<0.001
Seasonal Lags SAR1	.214	.082	2.600	0.010
Regression Coefficient 2003-2005	.070	.021	3.398	<0.001
2006 Effect	.046	.013	3.495	<0.001
Constant	.353	.032	11.140	<0.001

The data used for this analysis were the same fatality data used for the first ARIMA (see Table 1) except the years 1994 to 2006 were used instead of the 43 months before and after CIOT. Interruption series were designed to compare the 2006 effect to the 2003-2005 effect. These results suggest that there was an effect of the 2006 campaign even when accounting for the 2003-2005 campaigns. The model for this ARIMA used AR 1, MA 1, and SAR 1, making the final model (1,0,1) (1,0,0).

**Appendix D. Paid Media Dollars (in Thousands) as Reported by States, 2000-2006**

State or Territory	2000	2001	2002	2003	2004	2005	2006	total
Alabama		\$500.0	\$251.5	\$379.6	\$441.7	\$434.0	\$356.4	\$2,363.2
Alaska				\$116.2	\$131.9		\$75.0	\$323.1
Arizona				\$200.0			\$2.0	\$202.0
Arkansas				\$313.2	\$444.0	\$700.0	\$364.9	\$1,822.2
California				\$1,502.5	\$1,281.3	\$3,000.0		\$5,783.8
Colorado			\$100.0	\$302.3	\$363.9	\$423.6	\$175.6	\$1,365.3
Connecticut				\$824.0	\$725.0	\$797.3	\$3,688.9	\$6,035.2
Delaware				\$129.6	\$217.4	\$154.5		\$501.5
Dist. Of Columbia				\$141.6			\$68.0	\$209.6
Florida		\$708.0	\$2,112.9		\$2,623.4	\$1,912.8	\$2,047.0	\$9,404.1
Georgia		\$500.0		\$500.0		\$883.5	\$0.0	\$1,883.5
Hawaii						\$300.0	\$200.0	\$500.0
Idaho				\$32.9	\$189.0	\$186.6	\$83.3	\$491.8
Illinois			\$1,000.0	\$1,067.8	\$795.4	\$630.1	\$495.3	\$3,988.6
Indiana			\$963.1	\$524.5	\$434.2	\$435.8	\$418.2	\$2,775.8
Iowa				\$111.5	\$91.0	\$94.0		\$296.5
Kansas					\$305.0	\$249.2	\$145.3	\$699.4
Kentucky		\$600.0		\$351.2	\$400.0	\$896.1	\$253.0	\$2,500.3
Louisiana					\$542.1	\$747.9	\$520.3	\$1,810.3
Maine					\$194.1	\$126.6	\$77.0	\$397.7
Maryland				\$600.0	\$480.0	\$422.0	\$441.0	\$1,943.0
Massachusetts				\$436.6	\$452.0	\$410.0	\$420.5	\$1,719.1
Michigan			\$650.0	\$434.3	\$743.3	\$748.6	\$982.3	\$3,558.5
Minnesota					\$350.0	\$350.0	\$406.1	\$1,106.1
Mississippi		\$250.0	\$330.0	\$238.5	\$362.4	\$300.0	\$174.7	\$1,655.6
Missouri				\$275.0		\$184.0	\$134.0	\$593.0
Montana					\$155.4	\$924.7	\$107.1	\$1,187.2
Nebraska				\$100.0	\$100.5	\$97.5	\$115.9	\$413.9
Nevada			\$290.0	\$135.0	\$200.0	\$188.9	\$220.0	\$1,033.9
New Hampshire								\$0.0
New Jersey				\$500.0	\$537.0	\$300.0		\$1,337.0
New Mexico					\$172.0	\$75.0	\$0.1	\$247.1
New York				\$120.0			\$350.0	\$470.0
North Carolina		\$250.0		\$25.0	\$452.0	\$197.9		\$924.9
North Dakota				\$52.3	\$152.2	\$91.7	\$176.4	\$472.6
Ohio			\$433.3	\$590.0	\$850.0	\$608.6	\$637.3	\$3,119.3
Oklahoma				\$264.5	\$266.8	\$494.0	\$315.8	\$1,341.1
Oregon				\$50.0	\$235.9	\$312.9		\$598.7
Pennsylvania				\$900.0	\$687.0	\$441.8	\$237.9	\$2,266.7
Rhode Island			\$27.0	\$100.1	\$176.5	\$215.7	\$233.2	\$752.5
South Carolina	\$500.0	\$250.0		\$300.0	\$328.5	\$571.2	\$77.6	\$2,027.3
South Dakota				\$30.7	\$13.5	\$18.5	\$69.5	\$132.2
Tennessee		\$500.0		\$700.0	\$227.6	\$306.3	\$414.3	\$2,148.2
Texas			\$1,045.9	\$1,685.9	\$1,795.5	\$2,051.2	\$2,481.9	\$9,060.4
Utah				\$46.6	\$125.4	\$145.1	\$132.5	\$449.6
Vermont			\$200.0	\$150.0	\$196.3	\$217.8	\$184.0	\$948.1
Virginia				\$299.3	\$399.9			\$699.2
Washington			\$500.0	\$289.0	\$500.0	\$398.0	\$455.0	\$2,142.0
West Virginia			\$250.0	\$115.0	\$181.8	\$281.8	\$277.3	\$1,105.9
Wisconsin				\$150.0	\$550.0	\$500.0	\$293.6	\$1,493.6
Wyoming				\$6.0		\$86.5	\$46.2	\$138.7
Puerto Rico				\$87.8	\$180.2			\$268.0

Rates in jurisdictions with primary belt enforcement during the calendar year of the survey are shaded.



### Appendix E. Belt Citations as Reported by States, 2000-2006

State or Territory	2000	2001	2002	2003	2004	2005	2006	total
Alabama		12,257	13,664	14,016	11,218	10,716	8,543	70,414
Alaska				700	750		1,026	2,476
Arizona				5,219	6,914	5,298	2,092	19,523
Arkansas				2,233	2,703	3,838	3,630	12,404
California				73,299	93,414	144,104	145,437	456,254
Colorado			3,026	5,490	7,461	10,060	9,019	35,056
Connecticut				9,360	11,320	13,308	16,002	49,990
Delaware				505	3,614	3,315	2,930	10,364
Dist. Of Columbia				8,025	268	730	508	9,531
Florida		29,724	37,063	42,423	37,639	35,216	32,692	214,757
Georgia		33,208		29,861	23,415	11,844	15,699	114,027
Hawaii				3,057	3,169	2,483	3,337	12,046
Idaho				2,031	9,902	10,282	6,427	28,642
Illinois			22,073	15,606	34,057	39,537	45,450	156,723
Indiana			24,697	11,227	14,539	16,419	14,401	81,283
Iowa			3,033	6,206	6,222	4,563		20,024
Kansas				1,741	3,091	4,310	3,760	12,902
Kentucky		5,806		8,325	6,587	6,089	4,704	31,511
Louisiana				5,679	4,292	13,061	2,970	26,002
Maine					2,061	2,549	1,571	6,181
Maryland					3,298	10,836	11,001	25,135
Massachusetts			818	5,965	6,184	7,894	6,401	27,262
Michigan			5,463	21,260	33,966	30,931	23,653	115,273
Minnesota				9,859	10,915	12,102	11,711	44,587
Mississippi		2,450	2,486	1,109	2,486	2,462	3,203	14,196
Missouri				3,948	3,778	4,525	3,369	15,620
Montana				768	1,222	972	596	3,558
Nebraska				1,556	1,261	876	661	4,354
Nevada			3,570	2,294	1,598	2,706	1,639	11,807
New Hampshire			0	0	0	0	0	0
New Jersey				22,941	69,498	65,577	56,360	214,376
New Mexico				3,216	4,797	7,760	5,902	21,675
New York			69,034	54,597	56,360	58,737	55,622	294,350
North Carolina		20,055		14,902	21,152	23,803	17,738	97,650
North Dakota				1,141	1,463	1,161	1,491	5,256
Ohio			21,790	20,650	14,203	17,025	39,963	113,631
Oklahoma				5,765	20,779	15,794	12,024	54,362
Oregon			5,745	5,031	7,331	6,855		24,962
Pennsylvania				2,479	3,761	4,500	5,274	16,014
Rhode Island			1,301	1,388	2,388	1,945	2,024	9,046
South Carolina	19,815	7,115		3,086	2,818	3,173	10,007	46,014
South Dakota					1,006	437	510	1,953
Tennessee		9,190		4,569	8,759	9,757	9,021	41,296
Texas			27,260	45,256	42,319	57,271	50,610	222,716
Utah				8,414	7,490	6,475	6,758	29,137
Vermont			1,304	1,166	1,234	1,263	988	5,955
Virginia				1,522	3,209		7,470	12,201
Washington			5,505	16,779	4,003	9,967	9,820	46,074
West Virginia			3,104	3,067	9,535	7,845	4,823	28,374
Wisconsin				7,572	8,380	10,750	10,892	37,594
Wyoming				0	220	175	325	720
Puerto Rico				13,310	18,583			31,893

Rates in jurisdictions with primary belt enforcement during the calendar year of the survey are shaded

## Appendix F. Creative Material

**THE TOMERAS GROUP**

CLIENT: NHTSA

NOTE: The visuals contained within the storyboard frames (characters, props, colors, etc) are illustrated for reference only. The actual spot will be live action, not animated.

### Seamless Action: 30TV

The idea of this spot is to shoot 4 different scenarios identically so we can seamlessly cut back and forth. It creates an attention getting effect and reinforces the fact that the same crackdown is happening all across the U.S.

1

Video:

OPEN ON AN AFRICAN-AMERICAN MALE DRIVING UNBUCKLED THROUGH A METRO AREA.



Audio:

VO: All across America ...

THE SCENE TRANSITIONS TO A GUY IN A MUSCLE CAR IN THE SUBURBS.



VO: ... cops are stepping up safety belt enforcement.

CUT INSIDE TO A HISPANIC MAN IN A SEDAN UNBUCKLED. WE SEE THE OCEAN IN THE BACKGROUND. HE MAKES A SHARP TURN ...



VO: It doesn't matter who you are or where you live ...

... AND WE SEAMLESSLY TRANSITION TO A YOUNG GUY IN A MUSCLE CAR, ALSO UNBUCKLED. HE IS TOOLING AROUND THE SUBURBS.



VO: ... we'll be on the look-out.

2

Video:

Audio:

CUT TO POLICE LIGHTS FLASHING  
AND COP WALKING UP TO THE  
TRUCK ...



VO: Cops write tickets to save lives.

CUT INSIDE TO THE HISPANIC MAN  
IN THE SEDAN AS THE COPS  
WRITES ...



VO: If you don't buckle up ...

... THE COP GOES TO HAND HIM A  
TICKET AND WE TRANSITION TO  
THE YOUNG GUY IN THE MUSCLE  
CAR TAKING THE TICKET.



VO: ... expect a ticket.

WE SEAMLESSLY TRANSITION  
TO THE AFRICAN-AMERICAN  
MAN SHAKING HIS HEAD AND  
BUCKLING UP.



VO: Click it or ticket.



## **:30 Radio Spot**

**Client: NHTSA**

**Job No.: NHTS-18729**

**JobTitle: :05 CIOT Liner**

---

SFX: Music under throughout.

VO: Alright, everybody knows that safety belts save lives. Blah, blah, blah. We've been hearin' that for years. I'm just lettin' you know that your safety belt can save you a whole lot of hassle too.

Because from coast to coast, cops are cracking down. They've got this enforcement effort—Click It or Ticket. Pretty simple, you buckle up... or you get a ticket.

Consider this a friendly warning, because guess what? Cops won't be giving warnings.

Remember, Click It...or Ticket.

Annrc: Paid for by the U.S. Department of Transportation and the National Highway Traffic Safety Administration.



## **:30 Radio Spot**

Client: NHTSA

Job No.: NHTS-18173

JobTitle: Night & Day

---

VOICE-OVER TALENT: MITCH PHILLIPS

SFX: CRICKETS

VO: Some of you don't use safety belts at night because it's dark out so you think you can hide. You think you won't get caught.

SFX: CRICKET SOUNDS ABRUPTLY STOP TO EMPHASIZE NEXT LINE.

VO: You couldn't be more wrong.

HARD HITTING MUSIC KICKS IN.

VO: Law enforcement is on the lookout 24 hours a day to catch safety belt violators. It doesn't matter when or where you drive, if you're not buckled up you will get a ticket. So, remember. When it comes to safety belt enforcement, there is no difference between night and day. Click It or Ticket.



## **:10 & :15 CIOT Radio Liners**

Client: NHTSA

Job No.: NHTS-18729

JobTitle: :10 & :15 CIOT Liners

---

### **:10 Radio Liner – Click It or Ticket**

All across America, cops are stepping up safety belt enforcement. If you don't buckle up expect a ticket. Click It or Ticket:

### **:15 Radio Liner – Click It or Ticket**

All across America, cops are stepping up safety belt enforcement. It doesn't matter who you are or where you live, they will be on the lookout. If you don't buckle up expect a ticket. Click It or Ticket.

The tag should be accompanied by either of the following sponsor IDs:

“Brought to you by the National Highway Traffic Safety Administration” **or**

“Brought to you by the U.S. Department of Transportation.”



## **:05 CIOT Radio Liner**

Client: NHTSA

Job No.: NHTS-18729

JobTitle: :05 CIOT Liner

---

### **:05 Liner – Click It or Ticket**

All across America, cops are stepping up safety belt enforcement. Click It or Ticket.

NOTE: The sponsor ID for all billboards should be “Brought to you by the National Highway Traffic Safety Administration” or “Brought to you by the U.S. Department of Transportation.”



Client: NHTSA

Job No.: NHTS-19551

JobTitle: :10 and :15 Liner Copy –Spanish (FINAL 5.2.06)

---

### **:10 Radio Liner – Click It or Ticket**

All across America, cops are stepping up safety belt enforcement. If you don't buckle up expect a ticket. Click It or Ticket:

**La policía por todo el país  
está haciendo cumplir las leyes  
sobre el uso de cinturones de seguridad.  
Si no se abrocha el cinturón, prepárese a recibir una multa.  
Abrochado o Multado.**

### **:15 Radio Liner – Click It or Ticket**

All across America, cops are stepping up safety belt enforcement. It doesn't matter who you are or where you live, they will be on the lookout. If you don't buckle up expect a ticket. Click It or Ticket:

**La policía por todo el país  
está haciendo cumplir las leyes  
sobre el uso de cinturones de seguridad  
Y las harán cumplir  
sin importar quien sea o en donde viva.  
Si no se abrocha el cinturón, prepárese a recibir una multa.  
Abrochado o Multado.**

Brought to you by the National Highway Traffic Safety Administration:

**Anuncio de la Administración Nacional de Seguridad  
del Tráfico de Carreteras OR**

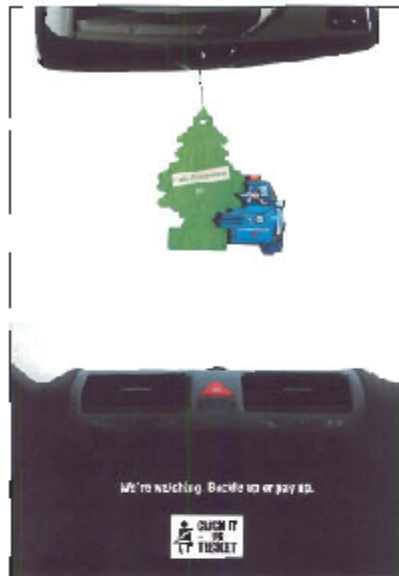
Brought to you by the US Department of Transportation:

**Anuncio del Departamento de Transporte  
de los Estados Unidos**

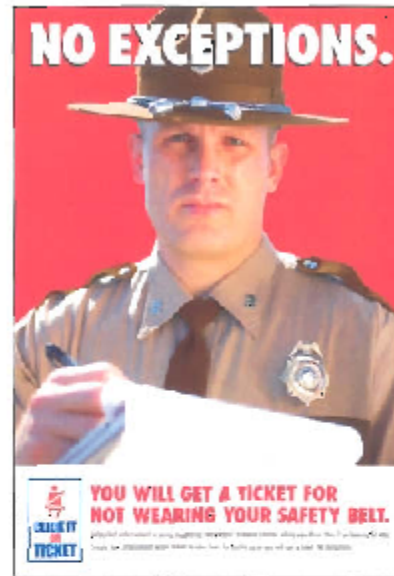




## 2006 "Click It or Ticket" - Creative



2006 CIOT General - Air Freshener Poster



2006 CIOT General - No Exceptions Poster



2006 CIOT General - Buckle Poster



2006 CIOT 24/7 - TV Billboard

THE TOMBRAS GROUP



2006 "Click It or Ticket" Creative



480 x 60



300 x 250



728 x 90

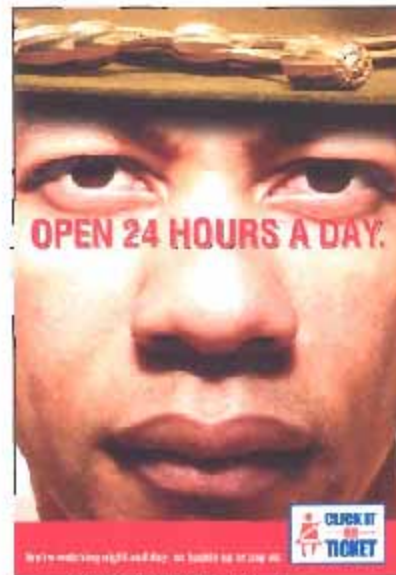
2006 COT 24/7 - Day & Nite Banner Ads



160 x 600



2006 COT 24/7 - Day & Nite Poster

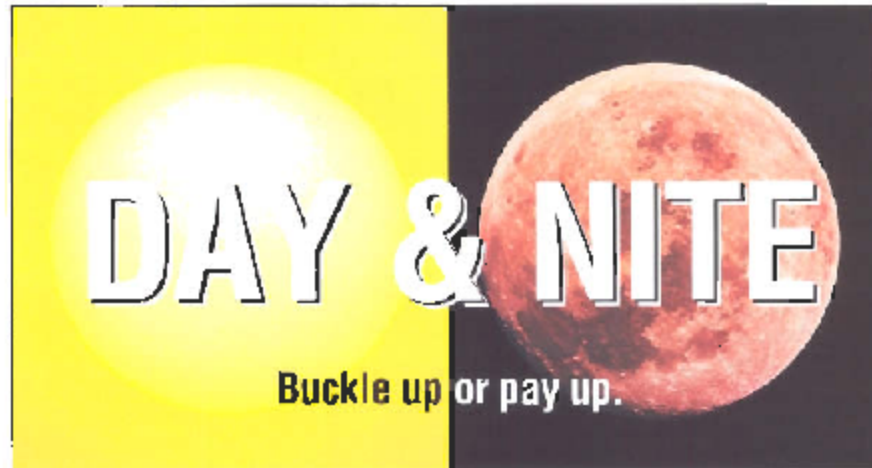


2006 CICT 24/7 - 24 hrs Poster

TheTombrasGroup



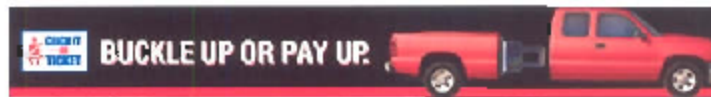
2006 "Click It or Ticket" - Creative



2006 COT 24/7 Day & Nite Sun/Moon Poster



720 x 90



460 x 60



300 x 250



160 x 600

2006 COT Pick-up Trucks - Buckle Up or Pay Up Banner Ads



**DOT HS 811 232**  
**January 2010**



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

