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# **Evaluation of Teen Seat Belt Demonstration Projects in Louisiana, Mississippi, New Mexico, and Texas**

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16. Abstract Four States in NHTSA's Region 6 began multi-wave teen seat belt demonstration projects in May 2009. They conducted four waves of paid media and law enforcement activities over the following year. Two of these waves were conducted immediately prior to statewide <i>Click It or Ticket</i> (CIOT) seat belt mobilizations (May 2009 and May 2010), and two were conducted independent of CIOT mobilizations. Enforcement and media indices indicated that these were strong programs. Awareness surveys conducted in three of the States indicated that media efforts and law enforcement agencies successfully reached the teen population in two States (Mississippi and Texas). Teen seat belt use increased in all four States, but only in Mississippi did teen belt use increase substantially more in the program than control area. The results of this evaluation were similar to those found in previous teen-focused demonstrations in Colorado and Nevada (see DOT HS 811 518).					
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## Executive Summary

Louisiana, Mississippi, New Mexico, and Texas, four of the six States in NHTSA's Region 6, implemented teen seat belt demonstration programs in 2009. Each program consisted of four waves of teen-focused activity including outreach, earned and paid media, and enforcement, coordinated to occur at the same times in each State. The first wave of activity for the teen program was launched in May 2009, just prior to the annual national *Click It or Ticket* (CIOT) mobilization. The second campaign was conducted in the fall of 2009; the third was launched in the winter of 2010. The final wave was implemented in May 2010, again just prior to the CIOT mobilization. All four waves used the same campaign components were used. Observational and awareness surveys were conducted prior to April of 2009 (baseline), in October and November of 2009 (after program Wave 2), in March of 2010 (after Wave 3) and in May of 2010 (after Wave 4).

*Click It or Ticket* was the primary branding for the teen program, just as it was for statewide CIOT mobilizations. In addition, the paid advertising component of the teen program included enforcement-related ads for radio and television that used an “*Out of Nowhere*” theme, designed to inform teens that if they do not buckle up, a policeman can appear “*out of nowhere*” to give them a ticket. Each of the participating States implemented strong paid media programs. These teen program expenditures translated into \$0.04 per capita in the program areas of Louisiana; \$0.08 in Mississippi; \$0.05 in New Mexico; and \$0.02 in Texas. In addition to these teen-related expenditures, States gained additional publicity as part of the national CIOT mobilizations following Wave 1 (in all States) and following Wave 4 (in Texas).

The distribution of expenditures among various media varied from State to State. Louisiana and Mississippi spent relatively more on television than on radio, while New Mexico and Texas spent more on radio than on television. Theater (cinema) ads constituted a large part of Louisiana's budget (30%); “other” expenditures (including Internet activity) constituted a large portion of New Mexico's budget (28%) and outdoor advertising (billboards) constituted the largest portion of Texas' budget (39%). There was modest spending on websites, Internet ads and contests in all States.

Gross rating points (GRPs) provided an important index of the reach and frequency of radio and television advertising. There were high GRPs in Waves 1 and 4 in all four States. During waves 2 and 3, which were independent of CIOT mobilizations, only Mississippi had a high level of exposure. In all States except Mississippi, there were general decreases in GRPs from Wave 1 through Wave 3 followed by increases at Wave 4.

Law enforcement agencies issued 5,805 citations to teens across the four States over the four waves of activity. An examination of the citation rate specifically among teens found reasonably high rates compared with previous teen demonstrations conducted in Colorado and Nevada (Nichols, Haire, Solomon, Ellison-Potter, & Cosgrove, 2011). On average, this rate was 20.6 citations per 10,000 teen residents. Mississippi had the highest rate (35.9), followed by Louisiana (19.7), New Mexico (13.5) and Texas (13.3). By comparison, about 13 citations per 10,000 teens were issued during the earlier teen demonstrations.

Three direct measures of the effect of media and enforcement activities were teen awareness of seat belt messages, awareness of special efforts by police to enforce seat belt laws, and perception of how strictly the seat belt law is enforced. Awareness of teen seat belt messages and awareness that the messages dealt with enforcement appeared to increase in the Mississippi and Texas program areas and not in the control areas. The perception of how strictly the seat belt law is enforced also appeared to increase in Mississippi. In Louisiana, however, the awareness changes in the program area were similar to changes in the control area.

There were statistically significant increases in observed seat belt use among teens in Mississippi and Texas as early as the first post-program measurement period, which occurred immediately after Wave 2. Overall, from the baseline to Wave 4, every State experienced an increase ranging from 11 points in Mississippi to 3 points in Louisiana and New Mexico. However, the control areas also experienced increases in observed seat belt use. In New Mexico and Texas, the increases in the control areas were similar to the increases in the program areas, and in Louisiana the increase in the control area was greater than in the program area.

In summary, the teen demonstration programs implemented in Region 6 were reasonably strong in terms of outreach, publicity, and enforcement. The intensity was somewhat less during Waves 2 and 3 than during 1 and 4, which were conducted in conjunction with the CIOT mobilizations. The demonstration appeared most effective in Mississippi, which was the only State with high levels of exposure during Waves 2 and 3. Mississippi experienced an increase in program awareness and a substantive increase in teen belt use in the program area with little change in the control area. The program area in Texas also demonstrated an increase in awareness compared to the control area. However, the increases in the belt use in Texas were similar in the program and control areas, which may have been because both areas started with relatively high levels of teen belt use. The results in Louisiana and in New Mexico did not support program effectiveness.

There is a consistent suggestion in the results from this and other focused programs that effects are greater when they are paired with CIOT mobilizations than when programs are implemented on their own. This may be related to the greater resources for outreach, earned and paid media, and enforcement that are associated with the nationwide mobilizations. It may also be due to the fact that the combination of focused and CIOT efforts is more powerful than either individual effort. Because there appears to be no negative effect on other groups (e.g., adult use also increased in these teen demonstrations), it may be that integrating the focused message (teens, pickup trucks, or other populations) into the larger CIOT mobilization that follows will result in the greatest effect.

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# **I. Background**

## **A. Young Drivers Present a High Risk of Crashes and Fatalities**

Young drivers 15 to 20 years old have higher fatality and injury rates in motor vehicle crashes than any other age group. In 2015 they accounted for 5.4 percent of all licensed drivers and 9 percent of all drivers who were involved in fatal crashes (National Center for Statistics and Analysis, 2017). The immaturity, inexperience, and underdeveloped hazard-recognition skills of young drivers have been well documented (Williams, 2006). In addition to these personal attributes, there are other risk factors that contribute to teen driver crashes. They include driving at night (Lin & Fearn, 2003), alcohol impairment (Williams, 2003), transporting other teen passengers (Lin & Fearn, 2003, Williams, 2003), cell phone use (Pickrell, Li & KC, 2016), and lower seat belt use (Hedlund, Shults, & Compton, 2003). Observational surveys have indicated that seat belt use among teenagers is the lowest of any age group (Williams & Shabanova, 2002), particularly among males and passengers (Williams, McCart, & Geary, 2003).

## **B. Demonstration Programs Focused on Low Use Groups**

By 2007 NHTSA had accumulated several years of experience with regard to focused demonstration programs implemented to increase seat belt use among key groups such as occupants of rural areas and occupants of pickup trucks (Nichols, Ledingham, & Preusser, 2009; Nichols, Tison, Solomon, Ledingham, K.A., Preusser, & Siegler, 2009). There were significant increases in observed seat belt use among low-use groups, such as younger drivers, males, occupants in rural areas, or occupants of pickup trucks in each of these programs. A NHTSA-sponsored review of teen seat belt use research suggested that the strategies found to increase adult seat belt use would likely also be the most effective strategies for the teen population (Fell at al., 2005). Two approaches that have been shown to be highly effective in the past are the enactment and enforcement of primary seat belt laws, which allow law enforcement to ticket a driver or passenger for not wearing a seat belt without any other traffic offense taking place, and high-visibility enforcement (HVE) programs, such as *Click it or Ticket* (Nichols & Ledingham, 2008).

Colorado and Nevada implemented a Teen Seat Belt Demonstration Program in 2007. It was the first of two multi-State efforts to focus on seat belt use among teen occupants of passenger vehicles. Those programs included outreach, earned media, paid advertising, and intensified enforcement, and they resulted in significant increases in teen awareness of the need to buckle up and resulted in significant increases in observed seat belt use among teens, ranging from 5 to 8 percentage points (Nichols, Haire, Solomon, Ellison-Potter, & Cosgrove, 2011). As a follow-up to this first teen demonstration program, NHTSA implemented a similar program to replicate the findings in Colorado and Nevada. As before, the objective of this demonstration was to prevent injuries and fatalities among teen occupants by increasing their use of seat belts.

## II. Region 6 Teen Seat Belt Demonstration Program

Four States located in NHTSA’s Region 6 were awarded cooperative agreements to participate in the second teen demonstration program: Louisiana, Mississippi, New Mexico, and Texas. The Indian Nations (administered through the Bureau of Indian Affairs) also participated in the campaign. Although planning and program development began in 2008, actual program activity (outreach, media, and enforcement) was implemented from April 2009 to June 2010.

NHTSA provided technical assistance to the participants for project coordination (Mercer Consulting Group -- MCG); outreach (Oklahoma Regional Community Policing Institute -- ORCPI); media (the Tombras Group); and evaluation (Preusser Research Group -- PRG). NHTSA’s Region 6 office provided program direction for participating States, coordinated activity within the Region, and provided additional services to support media and outreach components. The States developed their own activity plans in cooperation with MCG, and they funded enforcement, paid and earned media, outreach and some portions of the evaluation.

### A. Problem Identification

Table 1 shows the number of teen passenger vehicle occupant deaths in the four participating States over the 5-year period ending just prior to the start of the teen demonstration program (2003-2007). These data suggest that more than 60 percent of all teen occupant deaths in these States were unrestrained at the time of their crashes, ranging from half (52%) of the teenagers in Texas to more than three-quarters of the teenagers (79%) in Mississippi.

**Table 1. Passenger Vehicle Occupant Deaths Among Teens (Age 16-20)  
In Louisiana, Mississippi, New Mexico, and Texas (2003-2007)**

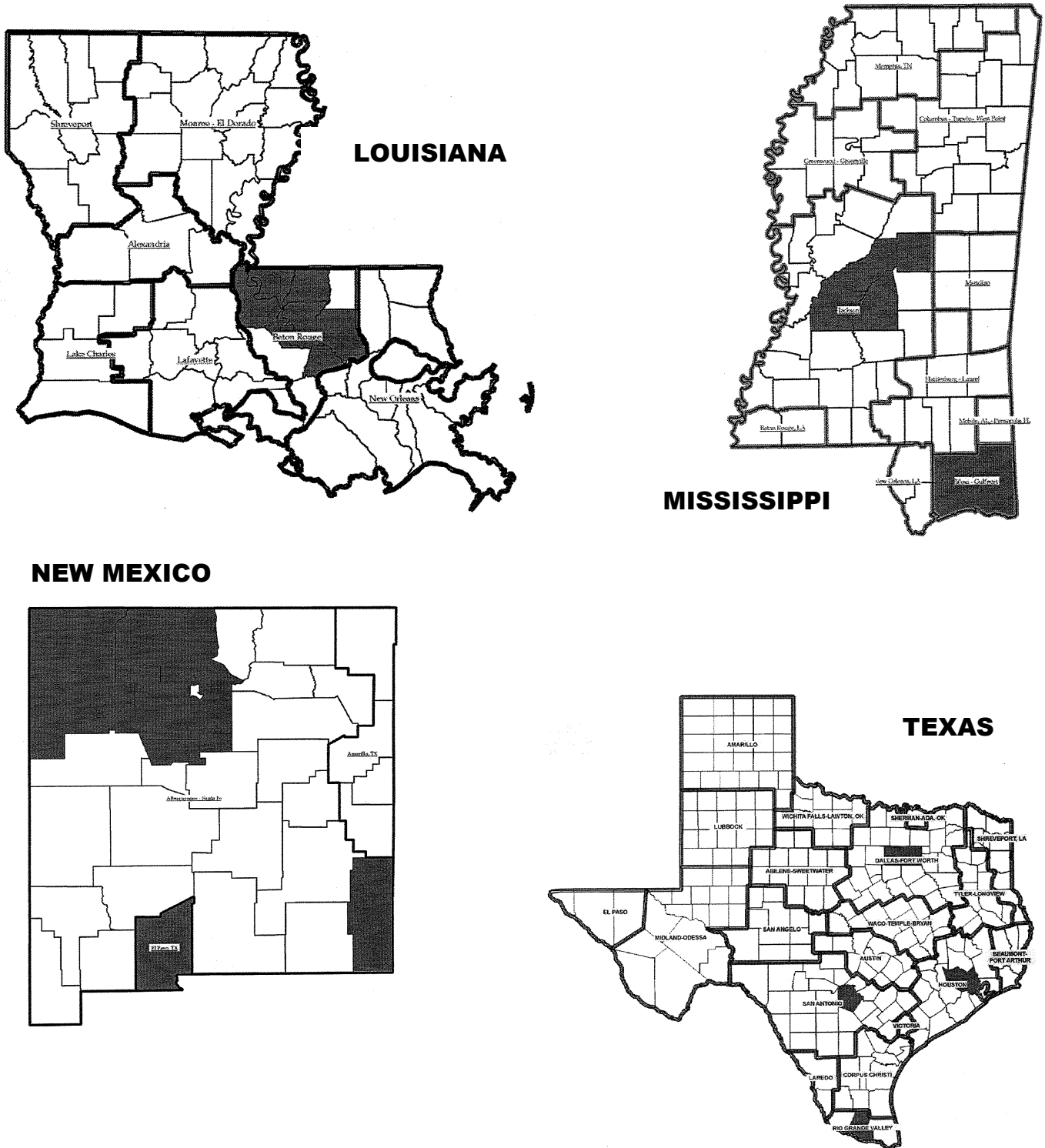
State	Restrained		Unrestrained		Total	
	Number	% of Total	Number	% of Total	Number	% of Total
Louisiana	138	28%	359	72%	497	100%
Mississippi	115	21%	422	79%	537	100%
New Mexico	77	30%	179	70%	256	100%
Texas	941	48%	1,035	52%	1,976	100%
All Four States	1,271	39%	1,995	61%	3,266	100%
Seat belt use/non use among only those victims whose use was known (i.e., unknowns are not included)						

In its role as the evaluator, PRG provided each of the participating States with a list of counties within each designated market area (DMA) that had the greatest number of unrestrained teen fatalities over the five-year period. The Tombras Group provided the States with estimates of media costs for campaigns in each DMA. With this input, each State was asked to review existing enforcement grants and resources for the next fiscal year (FY 2009). These three indices (i.e., the number of unbelted teen deaths, estimated media costs per DMA, and enforcement resources per DMA) provided the basis for selecting the program areas within each State. A fourth consideration was how broadly each State felt that it could fully implement a strong



emphasis program. Maps in Figure 1 show these areas, and Table 2 lists the counties involved in each program area.

**Figure 1. Teen Demonstration Project Counties/Parishes  
(in Grey)**



**Table 2. Demonstration States, DMAs, and Counties/Parishes**

State	Media Markets (DMAs)	Counties/Parishes
Louisiana	Baton Rouge DMA	East Baton Rouge, Livingston, Ascension, Pointe Coupee, West Baton Rouge, West Feliciana, and East Feliciana Parishes
Mississippi	Biloxi DMA	Stone, Harrison, George, Jackson, and Gulfport Counties
	Jackson DMA	Hinds, Leake, Madison, and Rankin Counties
New Mexico	Albuquerque/Santa Fe DMA	Bernalillo, McKinley, Rio Arriba, San Juan, Sandoval, and Santa Fe Counties
	El Paso DMA	Dona Ana County
	Odessa/Midland DMA	Lea County
Texas	Dallas/Fort Worth DMA	Dallas and Tarrant Counties
	Houston DMA	Harris County
	Rio Grande Valley DMA	Hidalgo County
	San Antonio DMA	Bexar County

Table 3 provides statewide and program area populations (total and teen) as well as percentage of program area populations by each participating State.

**Table 3. Summary of Population Estimates: Statewide and in Program Areas**

State	Statewide Population	Program Area Population	Program Area Teen Population Estimate	% of Program Area Population by State	% of Program Area Teen Population By State
<b>LA</b>	4,492,076	743,891	58,000	5%	9%
<b>MS</b>	2,951,996	924,716	63,000	7%	9%
<b>NM</b>	2,009,671	1,418,020	102,000	10%	15%
<b>TX</b>	24,782,302	10,705,219	454,000	78%	67%
	<b>34,236,045</b>	<b>13,791,846</b>	<b>677,000</b>	<b>100%</b>	<b>100%</b>

**B. Program Timing and Characteristics**

*Number of Waves.* Like the demonstrations conducted in Colorado and Nevada, the current program included four waves of activity implemented over a period of approximately one year. In two of the four waves, teen-focused publicity and enforcement preceded a national CIOT mobilization. The remaining two waves were implemented independent of a national CIOT

mobilization. During all four waves, there were outreach and earned media efforts, as well as paid advertising. In addition, law enforcement agencies were encouraged to work with teens to achieve the objectives of the State seat belt laws, and they provided incentives to reward teens who were buckled up.

**Table 4. Program and Evaluation Schedules**

<b>LOUISIANA Teen Program</b>				
	<b>WAVE 1</b>	<b>WAVE 2</b>	<b>WAVE 3</b>	<b>WAVE 4</b>
Media	5/8 - 5/15/09	10/30 - 11/6/09	2/26 - 3/5/10	4/16 - 4/23/10
Enforcement	5/11 - 5/17/09	11/2 - 11/8/09	3/1 - 3/7/10	4/19 - 4/25/10
Surveys	3/14 - 3/30/09	11/9 - 11/15/09	3/8 - 3/14/10	5/3 - 5/9/10
<b>MISSISSIPPI Teen Program</b>				
	<b>WAVE 1</b>	<b>WAVE 2</b>	<b>WAVE 3</b>	<b>WAVE 4</b>
Media	5/8 - 5/15/09	10/16 - 10/23/09	2/19 - 2/26/10	4/23 - 4/30/10
Enforcement	5/11 - 5/17/09	10/19 - 10/25/09	2/22 - 2/28/10	4/26 - 5/2/10
Surveys	3/23 - 3/30/09	10/26 - 11/6/09	3/1 - 3/12/10	5/3 - 5/11/10
<b>NEW MEXICO Teen Program</b>				
	<b>WAVE 1</b>	<b>WAVE 2</b>	<b>WAVE 3</b>	<b>WAVE 4</b>
Media	5/8 - 5/15/09	10/16 - 10/23/09	2/19 - 2/26/10	4/23 - 4/30/10
Enforcement	5/11 - 5/17/09	10/19 - 10/25/09	2/22 - 2/28/10	4/26 - 5/2/10
Surveys	4/1 - 4/25/09*	10/26 - 10/30/09	3/2 - 3/12/10	5/3 - 5/10/10
<b>TEXAS Teen Program</b>				
	<b>WAVE 1</b>	<b>WAVE 2</b>	<b>WAVE 3</b>	<b>WAVE 4</b>
Media	5/8 - 5/15/09	10/16 - 10/23/09	2/19 - 2/26/10	5/14 - 5/21/10
Enforcement	5/11 - 5/17/09	10/19 - 10/25/09	2/22 - 2/28/10	5/17 - 5/23/10
Surveys	2/18 - 3/25/09	10/25 - 11/5/09	3/1 - 3/22/10	5/17 - 6/23/10

\*New Mexico, Wave 1: observational survey only, no DMV

*Scheduling.* Table 4 shows program and evaluation schedules. Based on past demonstration programs, the expectation was that teen emphasis waves paired with national CIOT campaigns would have a greater impact than efforts that were implemented independently. Partly because of this expectation, the original teen program plan called for two of the teen waves to be conducted in conjunction with CIOT mobilizations. However, national CIOT campaigns usually end during the first week in June, and it turned out that many school calendars in the participating States were completed prior to the end of May. This meant that the driving patterns of teens would change substantially before the evaluation could be conducted. This was not an issue during the initial wave (May 2009) because the original evaluation plan called for baseline, post Wave 2, and post Wave 4 measurements. However, after checking school calendars, it became an issue for the final wave, and this wave was subsequently moved forward in three of the four participating States.

*Campaign Waves and Components.* Although the same basic campaign elements were used for all four waves (outreach, earned and paid media, and enforcement), there were some variations from wave to wave and from State to State:

- *Wave 1 April/May 2009:* In addition to enforcement, paid and earned media, outreach, and evaluation were key components of the first wave. These components were carefully coordinated by the project planning team comprised of NHTSA Region 6 and Headquarters staff, NHTSA contractors, and representatives from the four participating States. All four States in this new program used the teen campaign creative material originally developed for the demonstrations in Colorado and Nevada.
- *Wave 2 October/November 2009:* In Mississippi, New Mexico, and Texas, the second program wave was implemented in October 2009, in conjunction with *National Teen Safe Driver Week*. Louisiana implemented its second wave in November to allow time for enforcement agencies to be fully prepared to implement the program in this new fiscal year.
- *Wave 3 February/March 2010:* Wave 3 was scheduled to be implemented in February 2010 in all four States. However, due to a conflict with Mardi Gras, Louisiana conducted its winter campaign in March, shortly after the other three States. There were some indications of lower participation levels during this third wave.
- *Wave 4 April/May 2010:* Because of school calendar issues, Louisiana, Mississippi, and New Mexico decided to move their program activity forward to April. In Louisiana this resulted in only one month between Waves 3 and 4. Texas kept its original plan to implement Wave 4 just prior to the May 2010 CIOT mobilization. The State's decision was based upon a review of its school calendars that showed later dismissal dates than in the other States. Because of the staggered implementations, NHTSA provided for an additional post-program measurement wave.

The following activities were developed for each major components of the campaign, by each State, in cooperation with NHTSA and its various contractors:

- *Outreach:* efforts were planned to reach other potential partners to generate their involvement and support in delivering the campaign message directly to teens.
- *Paid and Earned Media:* campaigns were modeled after the previous teen demonstration to publicize and raise awareness of enforcement and other seat belt-related issues among teens. The same message was used by all States. In addition, earned media materials were provided to the States and their partners.
- *Law enforcement:* agencies within the program areas were recruited to conduct seat belt enforcement for at least one week during each teen emphasis period.
- *Evaluation:* each State participated in uniform efforts to measure the impact of their programs over four measurement periods: baseline, post-Wave 2, post-Wave 3, and post-Wave 4.

*Work Plans for Each State.* One of the most important aspects of these demonstrations was the development of a work plan for each wave that covered each of the major program components listed above. This plan described and quantified to the extent possible each of the activities that would be implemented during that wave. It also identified any program changes that were made

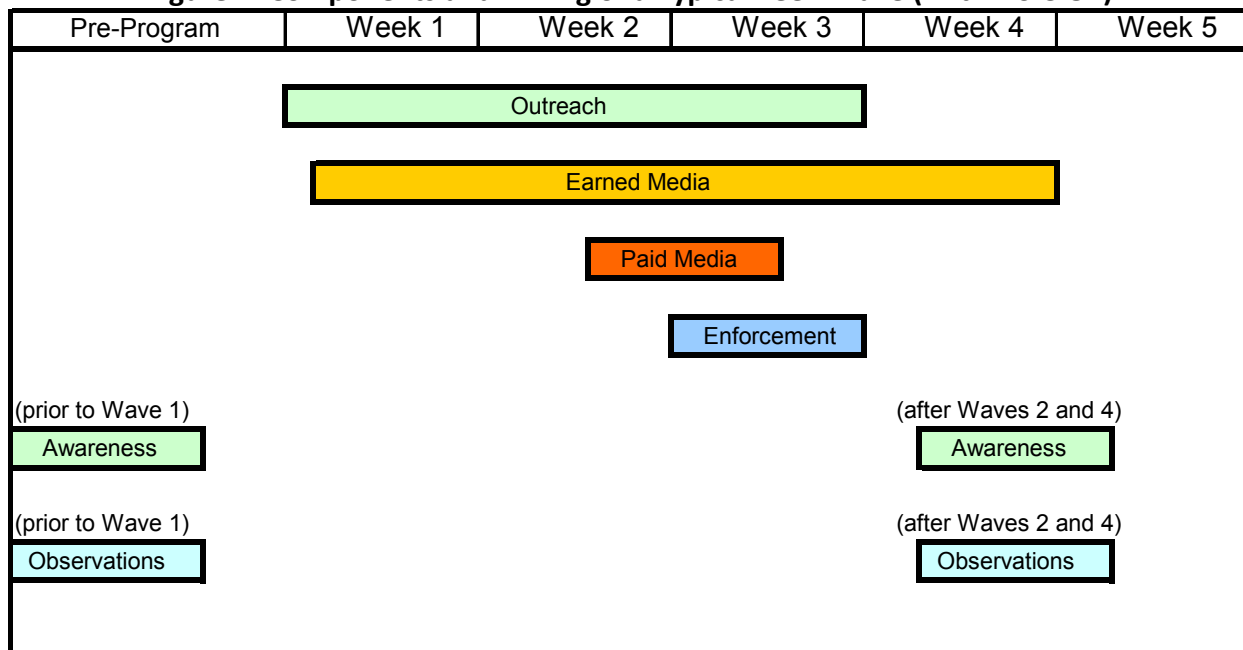
from the previous wave. The program manager consolidated these plans into an aggregate work plan summary document.

*Project Website.* A website ([www.region6teenbeltproject.org](http://www.region6teenbeltproject.org)) was developed and updated in real time with new information, materials, and developments. It contained campaign material, earned media planners, law enforcement plans and resources, problem ID information, State project maps, and recently reported results. This site was frequently accessed. Associated with Wave 1, it received more than 3,900 hits in April and 4,000 hits in May 2009, averaging 157 hits per day in May. Project updates and law enforcement action kits were the most frequently accessed topics. For Wave 2, the site was accessed 2,800 times in October and 3,300 times in November, averaging 111 hits per day in November. The site received about 4,300 hits associated with Wave 3, with 1,900 hits in February. Here again, the law enforcement and outreach pages were the most frequently accessed pages. Finally, associated with Wave 4, the site received just over 5,000 hits, with about 1,900 hits in March and 1,600 hits in April.

### C. Individual Wave Design

Each program began with outreach to involve partner organizations and earned media efforts to obtain news coverage. Paid media campaigns were implemented just prior to actual enforcement. The duration of the paid media campaigns was generally one full week, overlapping with one week of enforcement. When the teen activity preceded a CIOT mobilization (Wave 1), both media and enforcement were extended by 1 or 2 weeks as part of CIOT. In Wave 4, there was a separation of the teen and CIOT waves in all States except Texas.

**Figure 2. Components and Timing of a Typical Teen Wave (With No CIOT)**



### **III. Evaluation Methodology**

The evaluation design included both process and impact evaluation. Process evaluation examined program activities such as outreach; earned media; paid media expenditures; and enforcement activities (including agency participation and reporting, hours spent enforcing seat belt laws, and citation levels). Participating law enforcement agencies and State media contractors collected and reported enforcement and media activity using standard forms and according to specified schedules (see Appendix A for examples of activity reporting forms). Information collected included qualitative information regarding outreach efforts; qualitative and quantitative data regarding earned and paid media (e.g., news generating activities, types of media, number of news events, stories generated, amount spent on paid media); the reach and frequency of publicity efforts (e.g., number of ads generated, gross rating points); and descriptions regarding the type and intensity of enforcement efforts (e.g., saturation patrols, checkpoints, hours worked, citations issued).

Impact evaluation consisted of measuring changes in teen awareness of program efforts and changes in teen (and adult) seat belt usage. The States conducted Department of Motor Vehicle (DMV) paper-and-pencil surveys, and PRG, or State evaluation contractors under sub-contract to PRG, collected observational surveys. The States collected awareness (DMV) surveys at baseline and after waves 2, 3, and 4 of program activity. The awareness surveys were collected at DMV licensing offices. The DMV offices were selected on the basis of (a) being located within the program area or the designated control area of the State; and (b) being a full-service licensing office with a sufficient caseload to allow for an adequate sample of teen respondents, which was estimated to be from 15 percent to 20 percent of all visitors to full service centers. In general, an attempt was made to get larger sample sizes at baseline since this measure would be compared to all other measures. In part due to volume, larger samples were generally obtained in program areas than in control areas. Table 5 shows the sample sizes.

- Louisiana's program area DMV offices were in Baton Rouge, Baker, Denham Springs, and Livingston. Control area offices were located in Shreveport and Bossier City.
- Mississippi's program area offices were located in Gulfport, Jackson, and D'Iberville. The control area office was located in Olive Branch.
- Texas' program area offices were located in Dallas, Ft. Worth, Houston, McAllen, and San Antonio. The control area offices were located in Austin, Beaumont, Corpus Christie, El Paso, and Lubbock.

It was very difficult to secure DMV sites in the New Mexico control area due to the very low number of people passing through DMV centers in Southeast New Mexico. Also, in New Mexico it was not possible to collect baseline surveys in the program area. As a result, New Mexico awareness surveys were ultimately dropped from the evaluation.

**Table 5. DMV Survey Sample Size by Program/Control by State by Wave**

	Louisiana	Mississippi	Texas
<i>Program Area</i>			
Pre Wave 1	591	550	449
Post Wave 2	252	257	329
Post Wave 3	195	238	415
Post Wave 4	200	265	388
<b>SUM</b>	<b>1,238</b>	<b>1,310</b>	<b>1,581</b>
<i>Control Area</i>			
Pre Wave 1	285	241	332
Post Wave 2	192	128	271
Post Wave 3	211	119	369
Post Wave 4	159	84	331
<b>SUM</b>	<b>847</b>	<b>572</b>	<b>1,303</b>

*Note: New Mexico did not conduct surveys in the control area or pre-wave 1 (baseline) in the program area and is not included.*

Observational surveys were conducted at baseline and after waves 2, 3, and 4 of program activity in both program and control areas in all four States. Observations were conducted for each wave at 267 sites (167 program and 100 control sites): 71 in Louisiana; 64 in Mississippi; 40 in New Mexico; and 92 in Texas. Sites were in three general locations: near high schools (172); near colleges, universities, and technical schools (72); and in a non-school locations frequented by teens, such as theaters and malls (23).

In each State, surveyors were trained in observational techniques and in age estimation. Some of this training occurred in mall areas where surveyors estimated ages and the persons were then stopped and asked about their ages for verification. In addition, surveyors were given instructions (and practice) with regard to observing in moving traffic, where to position themselves with regard to safety and visibility, and recording procedures. In most cases, the surveyors were already experienced in conducting observational surveys and needed only to be trained (or gain practice) with regard to the age estimation aspect of the surveys.

High school surveys were conducted during the morning, prior to the start of the school day, and in the afternoon, after the final bell. Sites were selected within one block of the school so that there was not an issue of unbuckling upon arrival on the campus or having not buckled up before leaving the campus. Surveys were set up to observe vehicles heading in the direction of the school (in the morning) or heading away from the school (in the afternoon). In general, surveys were conducted for approximately one hour during each time period. Only seat belt status for front seat drivers and outboard passengers was observed and recorded.

Similarly, for colleges, observation sites were within one block of the school campus. Because the hours of arrival and departure were not as standard at these sites, there was more flexibility with regard to direction of travel and time of day. Surveys were distributed across morning and afternoon hours in a manner that captured trips to the school and away from the school. Sample sizes are shown in Table 6.

**Table 6. Number of Observations Made in Teen Demonstration Program**

	Base- line	Post W2	Post W3	Post W4	Total	Base- line	Post W2	Post W3	Post W4	Total
<b>Louisiana</b>	<b>Program</b>					<b>Control</b>				
Teen Drivers	1,391	1,377	1,717	1,717	6,202	542	780	846	872	3,040
Teen Passengers	637	914	947	822	3,320	314	440	534	654	1,942
<b>Total Teens</b>	<b>2,028</b>	<b>2,291</b>	<b>2,664</b>	<b>2,539</b>	<b>9,522</b>	<b>856</b>	<b>1,220</b>	<b>1,380</b>	<b>1,526</b>	<b>4,982</b>
<b>Mississippi</b>	<b>Program</b>					<b>Control</b>				
Teen Drivers	4,831	5,186	4,460	3,906	18,383	2,882	3,072	2,708	2,825	11,487
Teen Passengers	1,995	1,825	1,476	1,674	6,970	1,639	2,028	1,852	1,895	7,414
<b>Total Teens</b>	<b>6,826</b>	<b>7,011</b>	<b>5,936</b>	<b>5,580</b>	<b>25,353</b>	<b>4,521</b>	<b>5,100</b>	<b>4,560</b>	<b>4,720</b>	<b>18,901</b>
<b>New Mexico</b>	<b>Program</b>					<b>Control</b>				
Teen Drivers	2,176	1,451	2,314	2,591	8,532	857	664	730	793	3,044
Teen Passengers	1,567	1,250	1,808	1,796	6,421	530	559	589	549	2,227
<b>Total Teens</b>	<b>3,743</b>	<b>2,701</b>	<b>4,122</b>	<b>4,387</b>	<b>14,953</b>	<b>1,387</b>	<b>1,223</b>	<b>1,319</b>	<b>1,342</b>	<b>5,271</b>
<b>Texas</b>	<b>Program</b>					<b>Control</b>				
Teen Drivers	2,786	2,857	3,126	2,862	11,631	3,100	1,829	2,010	1,752	8,691
Teen Passengers	1,703	2,230	2,273	2,244	8,450	1,989	1,663	1,563	1,519	6,734
<b>Total Teens</b>	<b>4,489</b>	<b>5,087</b>	<b>5,399</b>	<b>5,106</b>	<b>20,081</b>	<b>5,089</b>	<b>3,492</b>	<b>3,573</b>	<b>3,271</b>	<b>15,425</b>

Data analysis consisted of comparisons of awareness levels and usage rates over time both wave-to-wave and cumulative changes. The significance of these changes was determined by means of chi-square analyses, using a probability of less than 0.05 level of occurring by chance as the threshold for statistical significance. Sub-group comparisons were also conducted, including: teens versus adults; drivers versus passengers; males versus females; and occupants of various vehicle types.



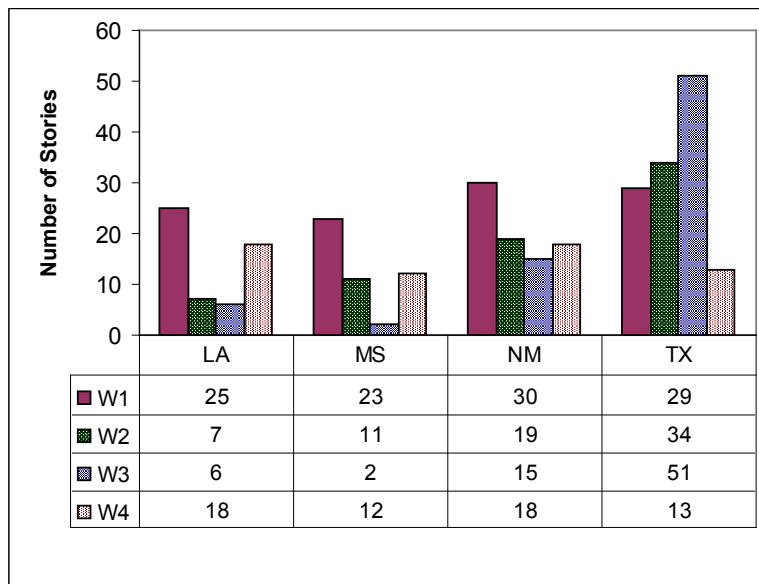
## IV. Results

### A. Program Activity

#### 1. Outreach and Earned Media

Outreach with news media resulted in substantial earned media (news stories and media events) associated with each program wave. News events and stories were generally reported in conjunction with news releases or events conducted just prior to the start of enforcement. In Louisiana an average of 14 stories were reported for each wave. More stories were reported for Waves 1 and 4 than for Waves 2 and 3. A slightly different pattern was found in Mississippi, where Wave 1 had the most reported stories associated with it, but Waves 2 and 4 had similar lower levels. As in Louisiana, Wave 3 had the least number of stories. New Mexico had a similar pattern with 30 stories associated with Wave 1; the remaining three waves had fewer stories. In Texas, however, Wave 3 had the most reported stories, followed by Wave 2, 1, and finally 4. These patterns are shown in Figure 3.

**Figure 3. News Stories Reported by State and by Wave**



## 2. Paid Media

In addition to earned media, an average of \$32,281 per wave was spent on paid media in Louisiana; \$75,397 was spent in Mississippi; \$63,990 in New Mexico; and \$263,611 in Texas. These expenditures were for teen demonstration activity only; they exclude amounts spent on CIOT media for Waves 1 and 4. Teen expenditures averaged \$0.04 per capita in the program areas of Louisiana; \$0.08 in Mississippi; \$0.05 in New Mexico; and \$0.02 in Texas.

As indicated in Table 7, Waves 1 and 4 were followed by CIOT mobilizations that included paid media expenditures in most program areas. For Wave 1, the Total column includes both teen and CIOT expenditures. For Wave 4, the Total column does not include any dollars associated with the May 2010 CIOT in Louisiana, Mississippi, or New Mexico because all measures of impact were completed prior to the mobilization in those States. In Texas, 50 percent of CIOT expenditures are included in the Wave 4 Total column because impact measurement continued through and after that mobilization.

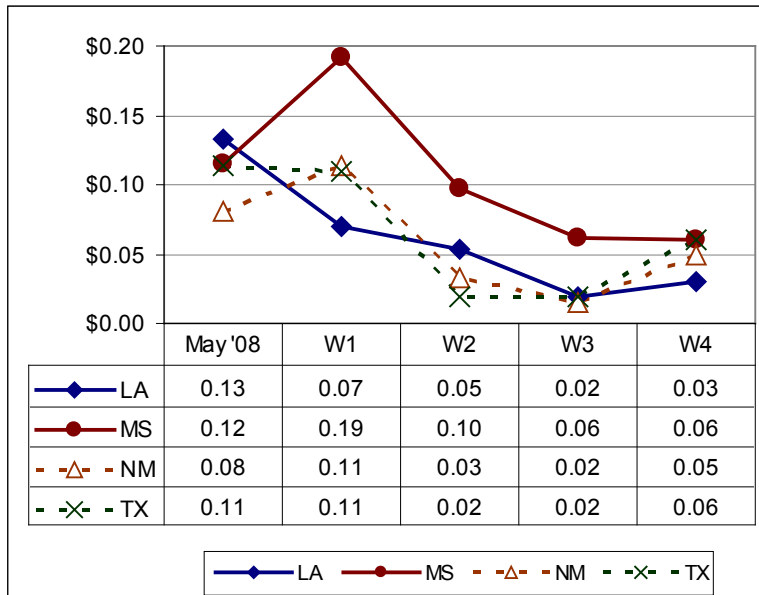
**Table 7. Teen and CIOT Program Expenditures for Paid Media, by State, by Wave**

revised 6/6						
Paid Media Expenditures						
LA	Teen \$	per capita	CIOT \$	per capita	Total \$	Per Capita
W1	\$49,900	\$0.07	\$0	\$0.00	\$49,900	\$0.07
W2	\$40,000	\$0.05			\$40,000	\$0.05
W3	\$14,000	\$0.02			\$14,000	\$0.02
W4	\$25,224	\$0.03	\$67,278	\$0.09	\$25,224	\$0.03
<b>averages</b>	<b>\$32,281</b>	<b>\$0.04</b>	<b>\$33,639</b>	<b>\$0.05</b>	<b>\$32,281</b>	<b>\$0.04</b>
MS	Teen \$	per capita	CIOT \$	per capita	Total \$	Per Capita
W1	\$98,107	\$0.11	\$254,490	\$0.09	\$352,597	\$0.19
W2	\$89,497	\$0.10			\$89,497	\$0.10
W3	\$57,433	\$0.06			\$57,433	\$0.06
W4	\$56,552	\$0.06	\$239,534	\$0.08	\$56,552	\$0.06
<b>averages</b>	<b>\$75,397</b>	<b>\$0.08</b>	<b>\$247,012</b>	<b>\$0.08</b>	<b>\$139,020</b>	<b>\$0.10</b>
NM	Teen \$	per capita	CIOT \$	per capita	Total \$	Per Capita
W1	\$117,335	\$0.08	\$61,236	\$0.03	\$178,571	\$0.11
W2	\$46,465	\$0.03			\$46,465	\$0.03
W3	\$21,964	\$0.02			\$21,964	\$0.02
W4	\$70,195	\$0.05	\$114,234	\$0.06	\$70,195	\$0.05
<b>averages</b>	<b>\$63,990</b>	<b>\$0.05</b>	<b>\$87,735</b>	<b>\$0.04</b>	<b>\$79,299</b>	<b>\$0.05</b>
TX	Teen \$	per capita	CIOT \$	per capita	Total \$	Per Capita
W1	\$404,290	\$0.04	\$1,689,837	\$0.07	\$2,094,127	\$0.11
W2	\$200,000	\$0.02			\$200,000	\$0.02
W3	\$200,153	\$0.02			\$200,153	\$0.02
W4	\$250,000	\$0.02	\$1,692,900	\$0.07	\$1,096,450	\$0.06
<b>averages</b>	<b>\$263,611</b>	<b>\$0.02</b>	<b>\$1,691,369</b>	<b>\$0.07</b>	<b>\$897,682</b>	<b>\$0.05</b>

includes \$ from W1 CIOT for all States but no \$ for W4 CIOT exc. in TX; where 1/2 of W4 CIOT \$ were included

Wave 1 had the highest media expenditures in large part due to the inclusion of CIOT activities. Mississippi had the highest per capita expenditures at every wave. Expenditures declined in all States through Wave 3 and then either stabilized or increased slightly at Wave 4. It is important to point out that impact measurement occurred only after Waves 2, 3, and 4. No measurement occurred immediately after Wave 1, based on the original evaluation design.

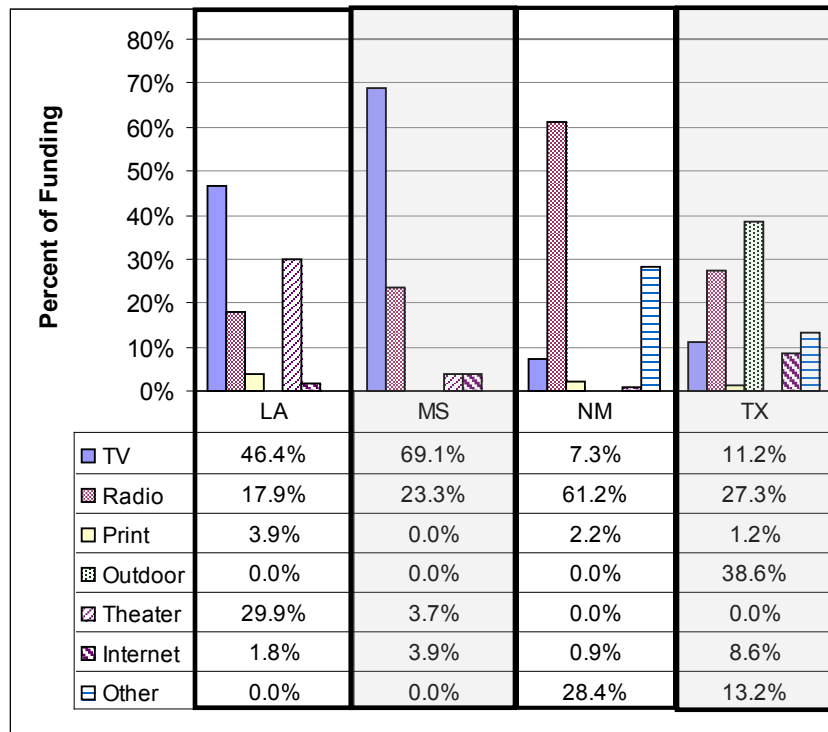
**Figure 4. Per Capita Media Expenditures by State and by Wave**



*Allocation of Funds to Various Media.*<sup>1</sup> The distribution of teen-program media funds varied from State to State. Louisiana and Mississippi spent more on television than on radio, while New Mexico and Texas spent more on radio than on television. Movie theater ads constituted a significant part of Louisiana’s budget; “other” expenditures, some of which included Internet activities, constituted a significant portion of New Mexico’s budget (28%); and outdoor advertising constituted the largest portion of Texas’ media budget (39%). The figure below shows only modest spending on Internet advertising in all four States, but substantial portions of the other expenditures were also related to Internet activities in New Mexico and Texas (such as Internet-based contests and rewards).

<sup>1</sup> NHTSA conducted this program when social media was far less well developed and sophisticated than in today’s marketplace. For similar programs conducted today, social media would be expected to be a significantly more important element in an overall media strategy and to account for a significant share of overall spending, especially when seeking to reach teenagers.

**Figure 5. Distribution of Teen Paid Media Funds by Category.**

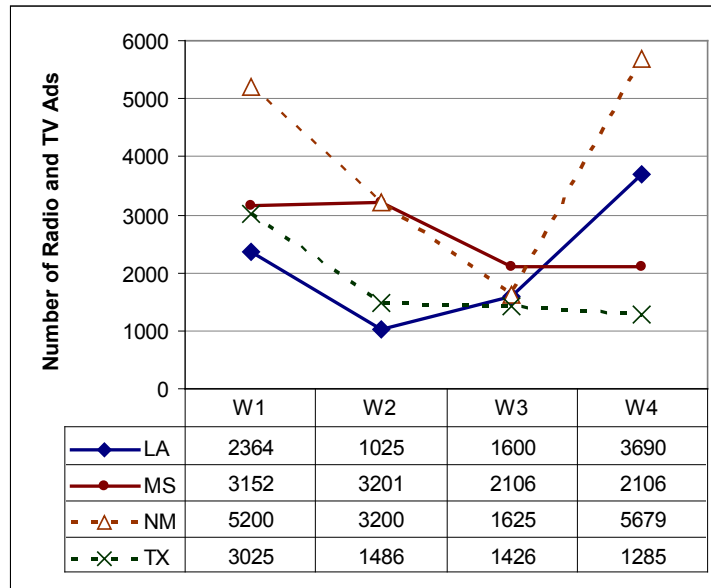


In addition to teen-related program expenditures, it should be noted that there were even larger expenditures associated with CIOT mobilizations during Wave 1 and these expenditures were largely allocated to television and radio (80 to 90% in Louisiana, Mississippi, and New Mexico; and 60 to 70% in Texas). Only a small proportion of CIOT funds were spent on print in any State, but a sizable amount was spent on outdoor and Internet in Texas.

*Advertisements.* The figure below shows the distribution of radio and television ads reported for each wave of the teen program. These numbers reflect the total number of paid and bonus ads, although the distinction was difficult to determine in some cases. These numbers do not reflect exposure resulting from print, outdoor, theater, Internet, or other paid media activities. Only radio and television ads were required on reporting forms submitted by the States. In addition, most post-buy reports reported ads only for radio and television (broadcast and cable). At least modest numbers of ads were achieved in other media, such as print, outdoor, and Internet; but these data were reported much more inconsistently.

The data regarding the number of ads generated are more variable than the media expenditure data, but in general they show a similar downward trend from Wave 1 through Wave 2 or (more commonly) through Wave 3, with rebounds in Louisiana and New Mexico at Wave 4. In addition to representing only radio and television, it should be noted that these data are susceptible to variations in reporting.

**Figure 6. Number of Radio and Television Ads Reported for Teen Waves**



Overall, there were more than 42,000 reported radio and television ads associated with teen media efforts, with an average of 3,435 associated with the first wave; 2,228 with Wave 2; 1,689 with Wave 3; and 3,190 with Wave 4. New Mexico reported the largest number of total ads (15,704), followed by Mississippi (10,565), Louisiana (8,679), and Texas (7,222). These numbers generally reflect only those ads reported for teen paid media efforts; some of these ads may have been associated with CIOT efforts at Waves 1 and 4. In addition, it should be pointed out that some States (Texas and New Mexico) invested heavily in alternative media, including billboards, Internet, theater ads, and other advertising.

*Gross Rating Points (GRPs)*. GRPs provide an important index of media strength and, as such, much effort was placed on obtaining these data for each Teen and CIOT wave.<sup>2</sup> GRP data were available only for television (broadcast and cable) and radio. No such data were available for print, outdoor, Internet, or other activities, although estimates of the number of impressions were reported for some of these media in some States. While these estimates were not as complete or consistent as *GRP* data, they did suggest that there were a substantial number of impressions generated by these alternative media (cinema, Internet, billboards).

<sup>2</sup> GRPs = *reach* into target audience (usually measured in terms of % of audience reached) x *frequency* of exposure (the number of times that percentage of the targeted audience is exposed to a paid ad).

**Figure 7. Number of Reported GRPs, by Wave and by State**

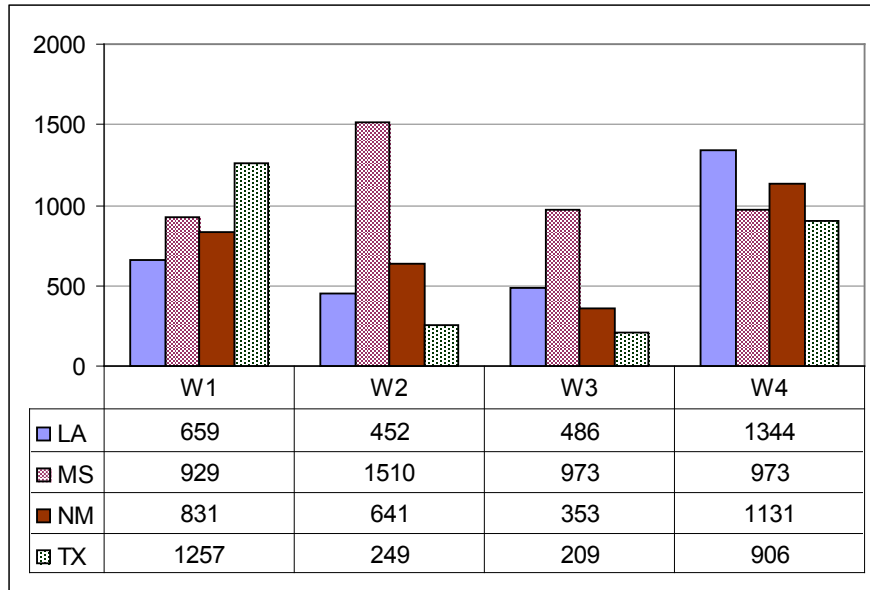


Figure 7 shows the average number of GRPs per DMA (within each wave) for each State. The numbers shown are the total number of GRPs generated in each State, divided by number of DMAs in the State. Again, the averages for Wave 1 include GRPs in program area DMAs generated by the CIOT mobilization. Wave 4, on the other hand, contains no CIOT-generated GRPs in Louisiana, Mississippi, and New Mexico because post-teen surveys were conducted prior to CIOT in those States. One half of the GRPs generated in program area DMAs during the May 2010 CIOT are included in the Texas average for Wave 4 because about half of the awareness and observation measurements were conducted during or post-CIOT.

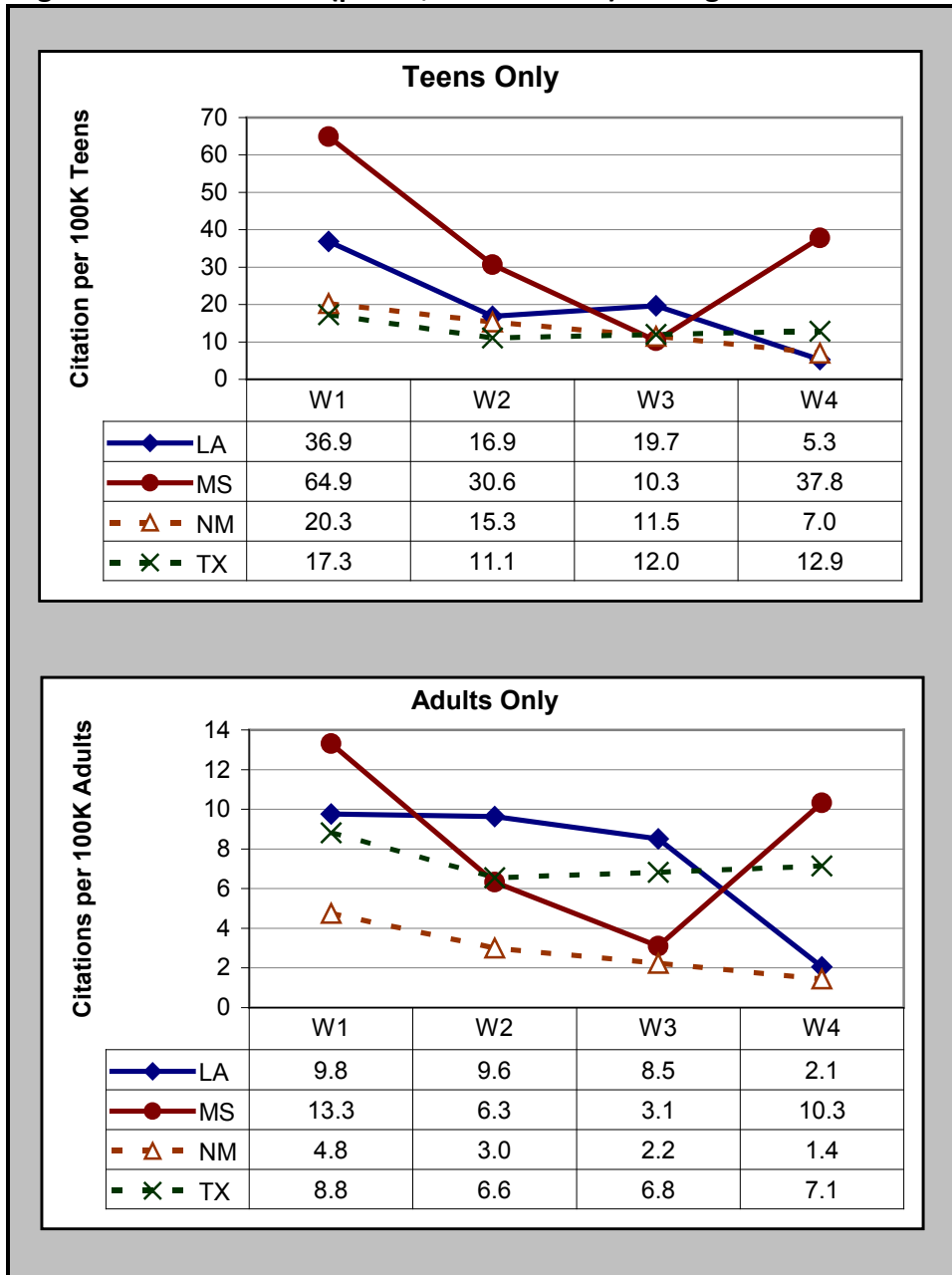
Wave 1 was associated with the highest GRP exposure in Texas, and Wave 2 was associated with the highest exposure in Mississippi. Over all four States, there was a general decline in GRPs from Wave 1 through Wave 3, followed by an increase in Wave 4. In the end, Wave 4 was associated with the most consistently high number of GRPs across the States, followed by Wave 1. Waves 2 and 3 were lowest in terms of this index of exposure to radio and television ads.

### **3. Enforcement**

*Total Seat Belt Citations.* Enforcement agencies in the program areas, issued a total of 41,491 total citations for seat belt violations during the four campaign waves. By far the majority of these citations were written in Texas (80%). Texas was the most populous among the four participating States, and the Texas teen program included five of the most populous counties in the State. Wave 1 accounted for the highest proportion of belt citations, followed by Waves 2, 3 and 4 with similar lower proportions. As with the media, Wave 1 appeared to be the most intense with a decline through Wave 3 and a modest increase associated with Wave 4. Overall the citation rate was 7.5 citations per 10,000 residents in the program areas. Mississippi had the highest rate (10.1), followed by Louisiana (8.4), Texas (7.7), and New Mexico (3.6).

*Seat Belt Citation Rates.* Perhaps the most valid and commonly used indicator of the intensity of seat belt enforcement is the population-based, seat belt citation rate (i.e., the number of seat belt citations issued per 10,000 residents). The next composite figure shows these rates over time for teens (ages 16-20) and for adults (ages 21+). The highest average among teens was in Mississippi (35.9), followed by Louisiana (19.7). The average rates in New Mexico and Texas were nearly identical at about 13 citations per 10,000 teens. Mississippi also had the highest rate among adults, followed by Louisiana, Texas and then New Mexico.

**Figure 8. Citation Rates (per 10,000 residents) Among Teens and Adults**



As the figure above shows, both the teen and adult citation rates declined after Wave 1. Among teens the average rate declined from 34.9 citations per 10,000 teens at Wave 1, to a low of 13.4 at Wave 3. The teen citation rate then increased modestly to 15.7 at Wave 4. Even though the average adult citation rate was much lower than the teen rate at Wave 1, it also declined from 9.2 citations per 10,000 adults at Wave 1 to 5.2 citations in the final two waves.

## B. Program Impact

### 1. Overall Changes in Awareness of Publicity and Enforcement

Three questions on the DMV survey provide direct evidence as to the change in teen awareness associated with this program: *awareness of teen seat belt messages; awareness that the message dealt with enforcement and how strictly is the seat belt law enforced.* Results for each of these questions by State, area type (program versus control) and wave are shown below.

*Awareness of Teen Seat Belt Messages.* Table 8 shows changes in *awareness of teen seat belt messages* in the past 30 days in the three demonstration States with awareness measures. All three States showed significant increases from Baseline through Wave 3 ( $p < 0.05$ ). In spite of modest declines in Mississippi and Louisiana at the final measurement period (prior to CIOT), there were significant cumulative increases (average = +10 points;  $p < 0.05$ ).

**Table 8. In the past month, have you read/seen/heard messages about teens/young people wearing seat belts? (% reporting "Yes")**

State	Area	Baseline (Mar. 2009)	Post W2 (Nov. 2009)	Post W3 (Mar. 2010)	Post W4 (May 2010)	Program Average	Change Program Versus Baseline	Change Post W4 Versus Baseline
LA	Program	53%	61%	65%	64%	63%	+10%*	+11%*
	Control	52%	56%	66%	57%	60%	+8%*	+5%
MS	Program	58%	67%	71%	64%	67%	+9%*	+6%
	Control	57%	61%	61%	57%	60%	+3%	0%
TX	Program	46%	52%	51%	58%	54%	+8%*	+12%*
	Control	41%	42%	39%	52%	44%	+3%	+11%*

Note: \* indicates statistically significant change at the 0.05 level. Sample sizes in Table 5.

Awareness surveys were also conducted in control areas of all participating States except New Mexico. In Louisiana, awareness in the control area showed an increase after Wave 3 (generally the period of least activity in the program areas), but then it experienced a modest decline after Wave 4. Associated with the fourth wave (a CIOT wave), the control area in Texas experienced a significant increase in seat belt messages (+11 points;  $p < 0.05$ ). This increase was *likely* associated with the CIOT mobilization during the measurement period.



*Awareness of Teen-Related Enforcement.* Table 9 shows changes in *awareness of enforcement* regarding teens and seat belt use. The program areas in all three States for which baseline data were available showed significant increases through Wave 2 ( $p < 0.05$ ). New Mexico and Texas then showed significant declines from post-Wave 2 to post-Wave 3 ( $p < 0.05$ ), followed by significant increases from Wave 3 to Wave 4 ( $p < 0.05$ ). The final measurement showed significant cumulative increases in teen awareness of enforcement in all three States.

**Table 9. In the past month, have you read/seen/heard messages about any enforcement regarding seat belts and teens? (% that responded “Yes”)**

State	Area	Baseline (Mar. 2009)	Post W2 (Nov. 2009)	Post W3 (Mar. 2010)	Post W4 (May 2010)	Program Average	Change Program Versus Baseline	Change Post W4 Versus Baseline
LA	Program	40%	50%	50%	49%	50%	+10%*	+9%*
	Control	43%	42%	47%	54%	47%	+4%	+11%*
MS	Program	43%	55%	54%	48%	52%	+9%*	+5%
	Control	37%	35%	40%	52%	41%	+4%	+15%*
TX	Program	32%	44%	35%	44%	41%	+9%*	+12%*
	Control	33%	30%	26%	43%	33%	0%	+10%*

Note: \* indicates statistically significant change at the 0.05 level. Sample sizes in Table 5.

Awareness surveys conducted in control areas showed little increase in teen *awareness of enforcement* from baseline through Wave 2. In Louisiana and Mississippi, there were significant increases at Wave 3 and at Wave 4. At the same time, there were decreases in awareness in the Texas control area through Wave 3, but there was a large and significant increase at the final measurement period, which reflected at least a portion of the CIOT mobilization.

*Perceived Strictness of Enforcement.* A second question related to enforcement asked *how strictly respondents felt that the seat belt law was being enforced*. The percentage of teen respondents who *thought that the law was being enforced* at least *somewhat strictly* increased from baseline through Wave 2 in Texas (+4 points), Mississippi (+6 points), and Louisiana (+2 points). After Wave 2, there were declines in this index in Texas and Louisiana but a continued increase in Mississippi. After Wave 4, the average change in this index was an increase of 3 percentage points in program areas.

**Table 10. How strictly do you think the seat belt law in [STATE] is enforced?  
(% that reported “very” or “somewhat” strictly)**

State	Area	Baseline (Mar. 2009)	Post W2 (Nov. 2009)	Post W3 (Mar. 2010)	Post W4 (May 2010)	Program Average	Change Program Versus Baseline	Change Post W4 Versus Baseline
<b>LA</b>	<b>Program</b>	<b>69%</b>	<b>71%</b>	<b>69%</b>	<b>69%</b>	<b>70%</b>	<b>+1%</b>	<b>0%</b>
	Control	72%	73%	81%	77%	77%	+5%	+5%
<b>MS</b>	<b>Program</b>	<b>72%</b>	<b>78%</b>	<b>78%</b>	<b>79%</b>	<b>78%</b>	<b>+6%*</b>	<b>+7%*</b>
	Control	73%	70%	80%	73%	74%	+1%	0%
<b>TX</b>	<b>Program</b>	<b>74%</b>	<b>78%</b>	<b>77%</b>	<b>75%</b>	<b>77%</b>	<b>+3%</b>	<b>+1%</b>
	Control	75%	79%	69%	72%	73%	-2%	-3%

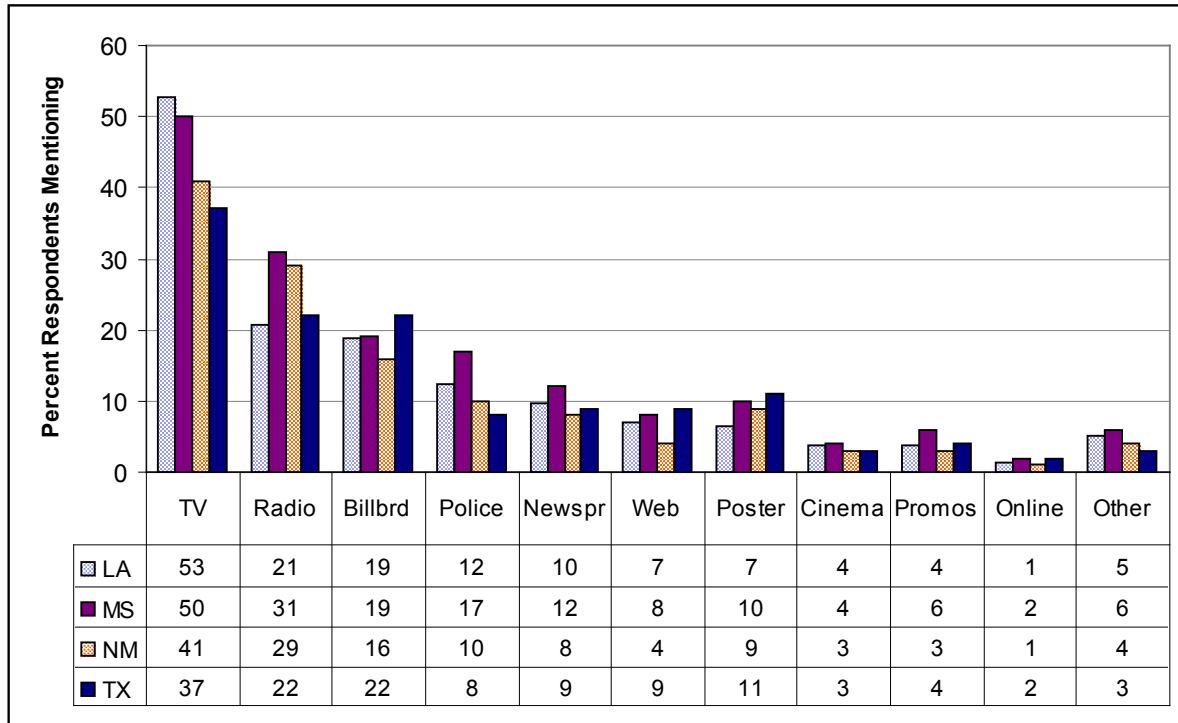
Note: \* indicates statistically significant change at the 0.05 level. Sample sizes in Table 5.

In the control areas, there was little or no change from baseline through Wave 2. After Wave 2, there was a decline in perceived strict enforcement in the Texas control area but there were increases in Louisiana and Mississippi. By the end of Wave 4, the average change in the perception of strict enforcement was only about a 1 percentage point increase in control areas. The small cumulative change in the program areas and the mixed results when compared to the change in the control areas suggest that awareness did not substantially change.

In Louisiana, awareness of teen seat belt messages and awareness that the messages dealt with enforcement appeared to increase in the program areas, but the fact that it also increased in the control areas suggests that the increase may have been due to factors other than the program such as statewide events. In Mississippi, it appears that the program increased awareness because all three measures increased significantly when comparing the averages during the program with the baseline averages and awareness in the control area did not significantly change. In Texas, awareness of teen seat belt messages and awareness that the messages dealt with enforcement appeared to increase in the program areas and not in the control areas when comparing the averages during the program with the baseline averages. In many cases, an unexpected change in the awareness in control areas after Wave 4 calls into question comparisons of awareness using only post-Wave 4 measures.

Teens most often recalled seeing or hearing program messages on *television, radio, outdoor/billboards, and police enforcement* in that order. The next three most-frequently mentioned media were *newspapers, websites, and posters*. The least mentioned media were *cinema/theater ads, promotional materials, and on-line games*. The “other” sources category likely included some on-line activity such as contests and promotions. Figure 9 shows these data by media and State.

**Figure 9. Teen-Reported Media Where Messages Were Seen or Heard by Medium**



Teens were also asked about the situations they were in when they saw or heard seat belt messages. The five situations choices on the survey form were: at home; at school, at work, in social or recreational situations; and on the road. The most common response was while at Home (37% average across the four States for the Post Wave 4 measurement) followed by school (22%) and while on the road (22%). Work or social situations were mentioned less often. The pattern was different with regard to learning about enforcement. “At school” was the most common response and this response increased over the life of the program. “At home” and “on a roadway” were less frequently checked compared with “at school” and there was less change in these responses over time. As with awareness of seat belt messages, very few teens indicated that they were at work or in a social or recreational situation when they saw or heard enforcement messages.

## 2. Changes in Observed Seat Belt Use

Table 11 summarizes changes in observed seat belt usage rates among teens in the program areas. This table shows significant increases for Mississippi and Texas in the initial stages of the program, from baseline through Wave 2, but little or no change in Louisiana or New Mexico during this early period. From Wave 2 through Wave 3 there was very little change in any of the four States; but usage increased significantly from Wave 3 to Wave 4 in Louisiana (+4.2 points;  $p < 0.001$ ), Mississippi (+2.6 points;  $p = 0.001$ ) and New Mexico (+2.3 points;  $p < 0.002$ ). Cumulative increases (baseline to Wave 4) were greatest in Mississippi (+10.8 points;  $p < 0.001$ ) and Texas (+6.2 points;  $p < 0.001$ ). Increases were more modest, but still significant, in Louisiana (+2.8 points;  $p < 0.019$ ) and in New Mexico (+2.5 points;  $p = 0.001$ ). The average of these increases, from baseline through Wave 4, was 5.6 percentage points. Teen belt use also

increased in the control areas but, with the exception of Louisiana, increases were smaller than in the program areas. While it is possible that the low baseline rate for Louisiana was the result of an unusual sample, it is also possible that the program activities inadvertently affected the control area or that something statewide affected both program and control areas.

**Table 11. Observed Seat Belt Usage among Teens**

State	Area	Baseline (Mar. 2009)	Post W2 (Nov. 2009)	Post W3 (Mar. 2010)	Post W4 (May 2010)	Program Average	Change Program Versus Baseline	Change Post W4 Versus Baseline
<b>LA</b>	<b>Program</b>	<b>78.5%</b>	<b>76.8%</b>	<b>77.1%</b>	<b>81.3%</b>	<b>78.4%</b>	<b>0%</b>	<b>+3%*</b>
	Control	57.6%	74.3%	80.0%	82.8%	79.0%	+21%*	+25%*
<b>MS</b>	<b>Program</b>	<b>65.8%</b>	<b>74.5%</b>	<b>74.0%</b>	<b>76.6%</b>	<b>75.0%</b>	<b>+9%*</b>	<b>+11%*</b>
	Control	56.0%	56.8%	53.1%	55.4%	55.1%	-1%	-1%
<b>NM</b>	<b>Program</b>	<b>84.1%</b>	<b>85.6%</b>	<b>84.3%</b>	<b>86.6%</b>	<b>85.5%</b>	<b>+1%*</b>	<b>+3%*</b>
	Control	86.0%	88.3%	88.3%	86.3%	87.6%	+2%	0%
<b>TX</b>	<b>Program</b>	<b>83.6%</b>	<b>90.4%</b>	<b>89.2%</b>	<b>89.8%</b>	<b>89.8%</b>	<b>+6%*</b>	<b>+6%*</b>
	Control	86.9%	88.2%	86.9%	91.2%	88.8%	+2%*	+4%*

*Note: \* indicates statistically significant change at the 0.05 level. Sample sizes in Table 6.*

In terms of the program (post-wave) average or Wave 4 versus the baseline, only Mississippi demonstrated an increase in observed teen belt use that was substantially larger than the change observed in the control area. In New Mexico and Texas, observed seat belt use in the program areas experienced a statistically significant increase, in part of because of larger sample sizes, even though the increases were only marginally larger than increases observed in the control areas. In both States, the observed teen belt use was relatively high for the program and control groups, which may have limited the magnitude of the increases.

Teen *drivers* generally had slightly higher usage rates than teen (front outboard) *passengers*.

- Louisiana - 79% versus 78%
- Mississippi - 73% versus 71%
- New Mexico - 87% versus 81%
- Texas - 89% versus 86%

Observed increases in belt use tended to be slightly higher among drivers than among passengers over the course of the program.

*Female* teens were more likely to buckle up than *male* teens.

- Louisiana - 83% versus 73%
- Mississippi - 77% versus 68%
- New Mexico - 85% versus 84%
- Texas - 90% versus 86%

Observed increases in belt use tended to be comparable across both genders.

Teen belt use *in pickup trucks* was lower than *other passenger vehicles*.

- Louisiana - 75% versus 78%
- Mississippi - 68% versus 72%
- New Mexico - 81% versus 85%
- Texas - 86% versus 88%

Observed increases in belt use tended to be comparable across both vehicle types over the course of the program.

## **Summary and Conclusions**

The teen demonstration programs implemented in Region 6 States appear to have been strong in terms of outreach, publicity, and enforcement, and there were significant changes in awareness and observed seat belt usage. However, only Mississippi demonstrated consistent increases in awareness and observed teen seat belt use in the program area but not in the control area.

Three questions on the DMV surveys administered in three States provided direct evidence as to the change in teen awareness associated with this program: *awareness of teen seat belt messages; awareness that the message dealt with enforcement and how strictly is the seat belt law enforced.* In Mississippi all three measures increased significantly when comparing the averages during the program with the baseline averages, and awareness in the control area did not significantly change. In Texas, awareness of teen seat belt messages and awareness that the messages dealt with enforcement appeared to increase in the program area and not in the control area when comparing the averages during the program with the baseline averages. In Louisiana, however, the awareness changes in the program area were similar to changes in the control area.

The first post-program measurement, conducted immediately after program Wave 2, showed the greatest increases in seat belt usage and likely included some residual impact of Wave 1 (which included the May 2009 CIOT mobilization). Louisiana and New Mexico experienced modest but significant increases associated with Wave 4, and these measurements were taken prior to the May 2010 CIOT in these States. Teen belt use experienced a statistically significant increase in the program areas from baseline to the end of the last wave in all four States. However, only in Mississippi did observed seat belt use increase substantially more in the program area than in the control area.

The results of this demonstration support the hypothesis that high-visibility enforcement can increase seat belt usage among teen drivers and passengers. Mississippi experienced an increase in program awareness and a substantive increase in teen belt use in the program area with little change in the control area. The program area in Texas also demonstrated an increase in awareness compared to the control area. However, the increases in the belt use in Texas were

similar in the program and control areas, which may have been because both areas started with relatively high levels of teen belt use. In this demonstration, the programs used “hard” enforcement messages such as *Click It or Ticket* and *Out of Nowhere* in conjunction with incentive and reward approaches. There also is a consistent suggestion in these data, and in similar studies focused on high risk groups, that focused programs are likely to be more effective when paired with CIOT mobilizations than when implemented on their own.

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# **Appendix A: Activity Reporting Forms**

REGION 6 TEEN DEMONSTRATION PROGRAM  
ENFORCEMENT and MEDIA ACTIVITY REPORT

STATE NAME: \_\_\_\_\_

TEEN REPORTING PERIOD: May 8 – May 17, 2009

Reporting on: \_\_\_ DWI Enforcement \_\_\_ Seat Belt Enforcement \_\_\_ Both

Law Enforcement Agencies	Total in State	Participating This Period	Reporting This Period
<i>State Police / Patrol Districts*</i>			
<i>County Sheriffs / Police</i>			
<i>City / Town Police</i>			
<i>Other (Specify in space below)</i>			
Totals			

\*in some States, these are called Barracks, Troops, Zones, or other terms.

**Report on Teen Program Enforcement Activity – [May 11 - 17]**

Approximate total officer-hours worked by all reporting agencies during reporting period

Specifically on Belt enforcement: \_\_\_\_\_

Specifically on DUI enforcement: \_\_\_\_\_

Specifically on Combined DUI / Belt enforcement: \_\_\_\_\_

Approximate percentage of the total hours worked as overtime: \_\_\_\_\_ %

Approximate percentage of the total hours worked at checkpoints: \_\_\_\_\_ %

Approximate number of checkpoints conducted: \_\_\_\_\_

Briefly describe the specific Seat Belt and/or DWI enforcement operations, other than checkpoints, worked this month:

\_\_\_\_\_

Except where otherwise requested, approximate total\* numbers of enforcement actions taken in the program areas this reporting period (\*if the total number for some category is unknown, please mark it “UNK”):

	Teens (16 – 20 years)	Adult (21+ years)	TOTAL
Seat Belt Citations			
Child Restraint Citations			

DWI Arrests	Felony Arrests	Recovered Stolen Vehicles	Fugitives Apprehended

Suspended Licenses	Uninsured Motorists	Speeding	Reckless Driving	Drug Arrests	Other (specify)

- If the above listed enforcement action terms are not commonly employed in your State, please replace them with the appropriate State-specific terms.
- This should include all enforcement actions taken, not just those taken at special enforcement operations, such as checkpoints, saturation patrols, etc.
- Citations written during the CIOT enforcement period should not be reported on this report.

**Report on Teen Program Publicity Activity [May 4 - 17 (Paid Media May 8 - 15)]**

Paid Media

Approximate funds spent on paid media this reporting period:

Total	TV ads	Radio ads	Print ads	Billboards	Other (specify)
\$	\$	\$	\$	\$	\$

Approximate numbers of paid advertisements broadcast this reporting period:

TV: \_\_\_\_\_ Radio: \_\_\_\_\_

Earned Media (Indicate only events associated with the Teen Demonstration Project).

Press conferences held this month: \_\_\_\_\_

TV news stories aired this month: \_\_\_\_\_

Radio news stories aired this month: \_\_\_\_\_

Print news stories run this month: \_\_\_\_\_

Other (specify): \_\_\_\_\_

Name of person submitting this report: \_\_\_\_\_  
Phone: ( ) \_\_\_\_\_  
e-mail: \_\_\_\_\_

Please submit this form to: [Mercerconsulting@comcast.net](mailto:Mercerconsulting@comcast.net) no later than June 30, 2009.

Reminder: The Post Media Buy Summary Report is due to be submitted to MCG on July 17, 2009.

## TEEN SEAT BELT DEMONSTRATION PROJECT

**STATE NAME: (Indicate State Name)**

**ACTIVITY REPORTING PERIOD: (Indicate Month of Report Activity)**

Forward by e-mail to: mercerconsulting@comcast.net

**INSTRUCTIONS: Each State Highway Safety Office (SHSO) will report on activities and accomplishments that were completed during the reporting period for the May 2009 Teen mobilization campaign. The SHSO should refer to their May 2009 Teen Work Plan to review the approach which had been planned in each of the component areas. States should directly input a description of their activity in each area for the applicable month by typing directly into this Word document providing narrative and other information where requested. It is not necessary to repeat information that was previously reported. Attachments may be included or mailed separately.**

**Note- this is not a Word Form. It is not necessary to tab between items. Begin by inserting your State name and the current month at the top of the Template. When completed, save the document with a title that includes the State's name, i.e. Texas May 2009 Teen [REPORTING PERIOD] Activity Report. Please call your MCG Teen Project Manager if you need assistance with using this template.**

**PLEASE NOTE: This Report should only describe the activity completed for the current reporting period**

**1. Enforcement Activity**

- a) Describe any activity (recruitment, grant awards, incentive programs, etc.) that the State has undertaken to recruit law enforcement agencies to participate in the program area media markets including the role of the State LELs in the recruitment process.

Comment:

- b) Describe successes or challenges encountered in recruiting law enforcement to participate.

Comment:

- 2. Paid Media:** (Paid Media data will be reported separately following the mobilization.) Describe any successes or challenges that may have been encountered during the month while working to accomplish the stated paid media goals.

Comment:

### 3. **Earned Media**

- a) Describe any activity completed for planning and implementing earned media during this reporting period. If earned media events have been completed, include when the activity took place and which agency(s) were responsible for organizing and implementing the activity.

Comment:

- b) List the types of earned media materials that were most beneficial for supporting the earned media activity.

Comment:

- c) Describe successes or challenges in achieving earned media coverage for the May 2009 Teen mobilization.

Comment:

### 4. **Outreach**

- a) Describe any outreach activity undertaken for this reporting period. Provide the names of the agencies, organizations and service providers who have been asked by the SHSO to assist and support the Teen campaign and indicate whether they are statewide, regional or local organizations.

Comment:

- b) If community partners, agencies or organizations conducted outreach activity during this reporting period, provide the names, locations and a description of the activity completed.

Comment:

- c) Specify which materials outreach organizations found most beneficial for supporting community outreach activity. Identify any other materials your SHSO made available or would have liked to have had available to enhance the outreach program.

Comment:

- d) Describe any successes or challenges encountered in generating community outreach for the May 2009 Teen mobilization.

Comment:

5. **Evaluation:** (Evaluation data results will be reported separately following the mobilization.) Describe any successes or challenges that may have been encountered during the month regarding the planned evaluation activity.

Comment:

6. **Other:** Provide information regarding any other related activity that the SHSO has conducted or organized this reporting period to support the May 2009 Teen mobilization.

Comment:

## **Appendix B: Sample Evaluation Forms**



**The Traffic Safety Section of the Texas Department of Transportation is collecting information about seat belt use. Your answers to the following questions are voluntary and anonymous. Thank you.**

---

1. Your age:            16            17            18            19            20            Over 20
2. Your race:            White            Black            Asian            Native American            Other
3. Are you of Spanish/Hispanic origin?  Yes            No
4. Your sex:            Male            Female           5. Your Zip Code: \_\_\_\_\_
6. What type of vehicle do you drive most often?  
 None, I do not drive.    Passenger Car            Pickup            SUV    Mini-van            Full-van            Other
7. How often do you use seat belts when you drive or ride in a (answer for each type of vehicle):  
Car ..... Always .....  Nearly always ..... Sometimes.....  Seldom..... Never .....  Don't drive/ride in one  
Pickup .... Always .....  Nearly always ..... Sometimes.....  Seldom..... Never .....  Don't drive/ride in one  
SUV/Van . Always .....  Nearly always ..... Sometimes.....  Seldom..... Never .....  Don't drive/ride in one

8. Do you think that it is important for police to enforce the seat belt law?  
 Yes            No

9. What do you think the chances are of getting a ticket if you don't wear your seat belt?  
 Always            Nearly always            Sometimes            Seldom            Never

10. How strictly do you think the seat belt law in Texas is enforced?  
 Very strictly    Somewhat strictly    Not very strictly            Rarely            Not at all

11. In the past month, have you heard about or seen special police enforcement of seat belt laws that affect teenagers and young people?    Yes            No

If yes, where did you learn about police enforcement of seat belt laws that would affect teenagers and young people? (Check all that apply.)

Home            School            Work            Social or Recreational Area    Driving on a Roadway

12. In the past month, have you seen or heard messages about teenagers and young people wearing seat belts?  
 Yes            No

If yes, how did you learn about these seat belt messages? (Check all that apply.)

Newspaper    Radio            TV    Billboards    Police Enforcement    Online Gaming

Website    Cinema Ads    Posters            Promotional Materials            Other: \_\_\_\_\_

If yes, what did the messages say? \_\_\_\_\_

If yes, where were you when you saw or heard these seat belt messages? (Check all that apply.)

Home            School            Work            Social or Recreational Area    Driving on a Roadway

13. Do you know the name of any seat belt safety programs in Texas? (Check all that apply.)

Buckle Up in Your Truck            Teens in the Driver Seat            Rock the Belt  
 Click It or Ticket            Buckle Up Texas            None            Other : \_\_\_\_\_

14. Circle 'True' or 'False' for each of the statements about Texas seat belt laws:

True / False: Law enforcement officers may stop drivers anytime for not wearing a seat belt.

True / False: Law enforcement officers may stop drivers for not wearing a seat belt if the driver violates another law.

True / False: The maximum fine for a first seat belt offense is \$2000.

True / False: The maximum fine for a first seat belt offense is \$200.

True / False: Only individuals 18 years old and older are required to wear a seat belt.

True / False: All individuals 5 years old and older are required to wear a seat belt if they are seated in the front seat.

15. Do your parents/guardians require that everyone in your vehicle buckle up?    Yes    No

**TEEN BELT RESTRAINT OBSERVATION FORM (Louisiana Example)**

OBSERVER: \_\_\_\_\_

DATE: \_\_\_\_\_

PARISH NAME & #: \_\_\_\_\_ SITE #: \_\_\_\_\_

LOCATION: \_\_\_\_\_

START TIME: \_\_\_\_\_ AM PM    END TIME: \_\_\_\_\_ AM PM

SHEET 1 OF \_\_\_\_\_

DAY: S U M T W T H F S A

WEATHER:    1    Clear/Sunny  
                   2    Light Rain  
                   3    Clear but Wet Pavement

**DRIVER**

	VEHICLE TYPE				GENDER		AGE GROUP		BELT USE	
	CAR	PICKUP	SUV	VAN	MALE	FEMALE	16-20	>20	YES	NO
1	___	___	___	___	___	___	___	___	___	___
2	___	___	___	___	___	___	___	___	___	___
3	___	___	___	___	___	___	___	___	___	___
4	___	___	___	___	___	___	___	___	___	___
5	___	___	___	___	___	___	___	___	___	___
6	___	___	___	___	___	___	___	___	___	___
7	___	___	___	___	___	___	___	___	___	___
8	___	___	___	___	___	___	___	___	___	___
9	___	___	___	___	___	___	___	___	___	___
10	___	___	___	___	___	___	___	___	___	___
11	___	___	___	___	___	___	___	___	___	___
12	___	___	___	___	___	___	___	___	___	___
13	___	___	___	___	___	___	___	___	___	___
14	___	___	___	___	___	___	___	___	___	___

**PASSENGER**

	GENDER		AGE GROUP			BELT USE	
	MALE	FEMALE	<16	16-20	>20	YES	NO
	___	___	___	___	___	___	___
	___	___	___	___	___	___	___
	___	___	___	___	___	___	___
	___	___	___	___	___	___	___
	___	___	___	___	___	___	___
	___	___	___	___	___	___	___
	___	___	___	___	___	___	___
	___	___	___	___	___	___	___
	___	___	___	___	___	___	___
	___	___	___	___	___	___	___
	___	___	___	___	___	___	___
	___	___	___	___	___	___	___
	___	___	___	___	___	___	___
	___	___	___	___	___	___	___
	___	___	___	___	___	___	___

DOT HS 812 464  
July 2017



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

