

**GAO**

Report to the Chairman, Committee on  
Transportation and Infrastructure,  
House of Representatives

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April 2008

# TRAFFIC SAFETY

## Improved Reporting and Performance Measures Would Enhance Evaluation of High-Visibility Campaigns





Highlights of [GAO-08-477](#), a report to the Chairman, Committee on Transportation and Infrastructure, House of Representatives

## Why GAO Did This Study

Two primary risk behaviors related to fatal traffic crashes are failure to use safety belts and driving while impaired by alcohol. High-visibility enforcement (HVE) campaigns that combine enforcement of a traffic safety law with media to inform the public about the campaign are effective in reducing these behaviors. In 2005, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users authorized funding of an HVE program, including safety belt and impaired-driving campaigns. The National Highway Traffic Safety Administration (NHTSA) within the Department of Transportation (DOT) provides media and coordinates with states to provide enforcement activities for the campaigns. This report addresses (1) the extent to which NHTSA has implemented the HVE program and (2) for selected states, the impact of the campaigns and challenges that exist in conducting the campaigns. To conduct this work, GAO analyzed fatality data, plans, and evaluations and interviewed officials from DOT and seven selected states.

## What GAO Recommends

GAO recommends that the Secretary of Transportation direct NHTSA to establish a minimum set of reporting requirements for states to report HVE activities that are federally funded and include additional performance measures in campaign evaluations. DOT officials generally agreed with the findings and recommendations of the report.

To view the full product, including the scope and methodology, click on [GAO-08-477](#). For more information, contact Katherine A. Siggerud at (202) 512-2834 or [siggerudk@gao.gov](mailto:siggerudk@gao.gov).

## TRAFFIC SAFETY

### Improved Reporting and Performance Measures Would Enhance Evaluation of High-Visibility Campaigns

#### What GAO Found

NHTSA has fully implemented the high-visibility enforcement program by (1) developing and disseminating advertising, (2) coordinating with states on media and enforcement activities, and (3) annually evaluating the effectiveness of the two HVE campaigns; however, NHTSA's evaluations have shortcomings that limit the agency's ability to determine the effectiveness of the campaigns. Regarding advertising, NHTSA introduced an annual plan in 2005 that sets forth a strategy for the campaign advertisements, developed advertisements, and purchased national media time for the advertisements. To coordinate with states, NHTSA provides an overall strategy and guidance to assist states in conducting the campaigns, as well as technical assistance and collateral materials, such as posters and model press releases. Officials in selected states reported that NHTSA's coordination efforts provided the support and interaction needed to conduct HVE campaigns. Although NHTSA's annual evaluations of campaign effectiveness indicate that the campaigns are helping to improve safety belt use and reduce impaired driving, the evaluations have shortcomings that limit NHTSA's ability to assess the level of state and local activity—a key component of the campaigns—and the overall effectiveness of the campaigns. For example, the information that NHTSA has on states' activities is inconsistent and incomplete because reporting of such data is generally voluntary for local law enforcement agencies. As a result, NHTSA has reported that it cannot provide meaningful analyses and comparisons of state activities. NHTSA's ability to measure the campaigns' overall effectiveness is also hindered because the performance measures used to evaluate the campaigns are not comprehensive. For example, while NHTSA measures daytime safety belt use, it does not directly measure nighttime safety belt use, despite recent efforts to increase safety belt use at night. In addition, NHTSA's evaluations do not include measures of the effectiveness of the campaigns at reaching all target audiences. NHTSA is working to develop more comprehensive performance measures.

According to officials in selected states GAO visited, the campaigns are contributing to increased safety belt use and reduced alcohol-involved fatalities, but these states face challenges in conducting the campaigns and achieving desired results. From 1997 to 2006, safety belt use increased in all seven of the selected states, and each state experienced a decrease in the alcohol fatality rate. Officials in the selected states said that the campaigns provide additional benefits, such as apprehending suspects involved in other crimes. However, officials in those selected states identified several challenges, such as increasing safety belt use and reducing impaired driving among resistant populations; insufficient staff to conduct the campaigns; and weak prosecution of impaired-driving arrests. NHTSA has initiatives under way to help states address some of these challenges. For example, NHTSA has sponsored a campaign to increase safety belt use in rural areas. In addition, NHTSA provides funds that can be used by states to purchase equipment for local law enforcement agencies, such as breath-testing units, to encourage the agencies to participate in campaigns.

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### Abbreviations

BAC	blood alcohol content
CIOT	Click It Or Ticket
DOT	Department of Transportation
DUI	driving under the influence
FARS	Fatality Analysis Reporting System
FHWA	Federal Highway Administration
GHSA	Governors Highway Safety Association
HPMS	Highway Performance Monitoring System
HVE	high-visibility enforcement
NASJE	National Association of State Judicial Educators
NHTSA	National Highway Traffic Safety Administration
NTSB	National Transportation Safety Board
OTLUA	Drunk Driving. Over the Limit. Under Arrest
RBT	random breath test
SAFETEA-LU	The Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users
TEA-21	Transportation Equity Act for the 21st Century
VMT	vehicle miles traveled

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United States Government Accountability Office  
Washington, DC 20548

April 25, 2008

The Honorable James L. Oberstar  
Chairman  
Committee on Transportation and Infrastructure  
House of Representatives

Dear Mr. Chairman:

More than 42,600 people died in traffic accidents during 2006. The failure to use safety belts and driving while impaired by alcohol are two primary risk behaviors related to these accidents. High-visibility enforcement (HVE) campaigns that combine intensive enforcement of a specific traffic safety law with extensive media communication to inform the public about the campaign have been found effective in the United States and other countries in helping reduce these behaviors. The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), enacted in 2005, authorized funding for an HVE program, including two primary HVE campaigns: Click It Or Ticket (CIOT), to increase safety belt use, and Drunk Driving, Over the Limit, Under Arrest (OTLUA), to decrease the number of impaired drivers.<sup>1</sup> SAFETEA-LU specified that the National Highway Traffic Safety Administration (NHTSA) within the Department of Transportation (DOT) should implement this program by developing and disseminating national advertisements for the campaigns, coordinating with states to conduct the campaigns, and evaluating the results of the campaigns; the law authorized \$29 million annually for NHTSA to implement the program. State and local governments provide law enforcement resources for the campaigns—such as officers, cars, and equipment for patrols or checkpoints—and may supplement NHTSA’s national advertisements; these entities may use federal traffic safety grants for such activities.

You requested that we assess the HVE program and campaigns. Accordingly, this report addresses (1) the extent to which NHTSA has implemented the HVE program and (2) for selected states, the impact of the HVE campaigns and challenges that exist in conducting the campaigns. This report also includes additional information on the key components of

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<sup>1</sup>The OTLUA campaign was termed “You Drink & Drive, You Lose” from 2003 to 2005.

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HVE campaigns used by Australia, Canada, and the Netherlands (see app. II).

To determine the extent that NHTSA has implemented the HVE program, we analyzed information and interviewed officials from NHTSA headquarters and regions; the Federal Highway Administration (FHWA); and state traffic safety offices, state police, local police, and police advocacy organizations in seven states—Arkansas, Illinois, Iowa, North Carolina, North Dakota, Rhode Island, and Washington. We judgmentally selected the states by including: states that have enacted various laws that may affect how states conduct enforcement campaigns; states with a wide range of traffic safety performance levels, such as extent of safety belt use and number of alcohol-involved fatalities in each state; states with differences in average size of law enforcement agencies; states that exhibited various degrees of participation by state and local law enforcement agencies in campaigns; and states that were geographically dispersed. Since we used a nongeneralizable sampling approach, our findings cannot be used to make inferences about all states that implemented the HVE program. We also interviewed representatives of nongovernmental organizations, including the American Association of State Highway and Transportation Officials, Governors Highway Safety Association (GHSA), International Association of Chiefs of Police, Mothers Against Drunk Driving, National Safety Council, and the National Sheriffs Association. In addition, we reviewed studies, reports, and laws relevant to the implementation of the NHTSA HVE program. To determine, for selected states, what impact the HVE campaigns have had and what challenges exist, we analyzed safety belt use and alcohol-involved fatality data and interviewed officials from state traffic safety offices, state police, local police, and police advocacy organizations in the seven selected states. We used data contained in NHTSA's Fatality Analysis Reporting System (FARS) database and vehicle miles traveled data maintained by FHWA in its Highway Performance Monitoring System database. We determined the data to be sufficiently reliable for the purposes of this report. For further details of our objectives, scope, and methodology, see appendix I. We also provide a summary of high-visibility campaigns in Australia, Canada, and the Netherlands, which can be found in appendix II. We conducted this performance audit from March 2007 to April 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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## Results in Brief

NHTSA has implemented the HVE program by developing and disseminating advertisements, coordinating with all states on advertisement and enforcement activities, and evaluating the effectiveness of the two HVE campaigns; however, NHTSA's evaluations of these campaigns have shortcomings that limit the extent to which NHTSA can determine the effectiveness of the campaigns.

- *Advertisements.* To develop and disseminate advertisements, NHTSA introduced an annual National Communications Plan in 2005 that sets forth a strategy for the campaigns, including goals, dates, target audiences, and messages for the campaigns. Through a contractor, NHTSA also developed advertisements in multiple languages and media formats—such as broadcast television, cable television, and radio—and purchased national media time for the advertisements. Purchasing media time for these advertisements accounted for the majority of NHTSA's annual \$29 million appropriation for the HVE program. For example, NHTSA allocated nearly \$28 million to purchase media time for advertisements in fiscal year 2006.
- *Coordination.* To coordinate with states on advertisement and enforcement activities, NHTSA provides an overall strategy and guidance to assist states in conducting the campaigns, as well as technical assistance and collateral materials—such as posters and model press releases—to help state officials with their advertisements. According to officials in our seven selected states, NHTSA's coordination efforts have provided the support and interaction needed to conduct HVE campaigns. For example, officials from one state noted that NHTSA assisted them in applying for traffic safety grants to conduct campaigns and provided tool kits that were useful in developing the campaigns. Officials from another state reported that NHTSA had improved the quality and timeliness of advertising materials, allowing them to devote more state resources to purchasing radio and television ads rather than developing the ads. NHTSA's campaign coordination efforts are included as part of the agency's day-to-day coordination efforts with the states and are not funded by the \$29 million appropriation for the HVE program.
- *Evaluation.* NHTSA evaluates the effectiveness of the campaigns annually, but the evaluations have shortcomings that limit NHTSA's ability to assess the level of state activity and the overall effectiveness of the campaigns. The evaluations accounted for \$750,000 of NHTSA's \$29 million appropriation in fiscal years 2006 and 2007. NHTSA's evaluations include information on the level of enforcement activity by states and the results of the campaigns based on performance measures, such as message awareness, media activity, safety belt use, and fatality and injury statistics.

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However, the information that NHTSA has on states' activities is inconsistent and incomplete in part because states are not required to report such data, although NHTSA officials said that the agencies receiving federal traffic safety grants for campaign activities generally voluntarily report on these activities. As a result, NHTSA is not able to fully account for state and local law enforcement campaign activity—a critical component of HVE campaigns for which states may use federal traffic safety grants. NHTSA's ability to measure the campaigns' overall effectiveness is also hindered in part because the performance measures used to evaluate the campaigns are not comprehensive or consistent. For example, while NHTSA measures the change in daytime safety belt use, it does not directly measure nighttime safety belt use, despite recent efforts to increase the use of safety belts at night. Furthermore, measures of the effectiveness of NHTSA's national advertising campaign in reaching all target audiences were limited. For example, both the safety belt and impaired-driving campaign evaluations contained information about the effectiveness of the campaigns at reaching their primary target audiences but no information on the effectiveness in reaching other target audiences that were listed in the National Communications Plan. NHTSA is working to develop more comprehensive measures of the effectiveness of the campaigns.

According to officials in the selected states we visited, HVE campaigns are contributing to increased safety belt use and reduced alcohol-involved fatalities, but these states face challenges such as reaching resistant populations, finding sufficient resources to conduct the campaigns, and weak prosecution of impaired-driving offenders. From 1997 to 2006, safety belt use increased in all seven of the selected states, and four of those states exceeded the 2006 NHTSA goal for safety belt use (82 percent). HVE campaigns in the selected states are also contributing to reduced alcohol-involved driving fatalities. From 1997 to 2006, each of the selected states experienced a decrease in the alcohol fatality rate (per 100 million vehicle miles traveled). In 2006, five of the seven selected states met the NHTSA goal pertaining to alcohol-involved fatality rates. Officials said that high-visibility campaigns provide other benefits beyond those for which the campaigns are designed. For example, officials in North Carolina and Iowa said that stopping drivers for potential safety belt or impaired-driving violations also allowed them to increase overall traffic safety by writing citations for other traffic violations, as well as apprehend fugitives and recover stolen vehicles. Despite the progress made so far, states face several challenges in conducting the high-visibility campaigns and achieving desired results, including improving safety belt use and reducing impaired driving among resistant populations—such as pickup truck



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drivers—and recruiting sufficient officers to conduct the campaigns when other law enforcement needs compete for resources. Officials from NHTSA and some of the selected states also cited weak prosecution of existing driving under the influence (DUI) laws as an obstacle. NHTSA has initiatives under way to help states address some of these challenges. For example, NHTSA has sponsored a campaign—Buckle Up In Your Truck—to increase safety belt use by pickup truck drivers. In addition, NHTSA provides funds that can be used by states to purchase equipment for local law enforcement agencies, such as breath-testing units, to encourage the agencies to participate in impaired-driving campaigns.

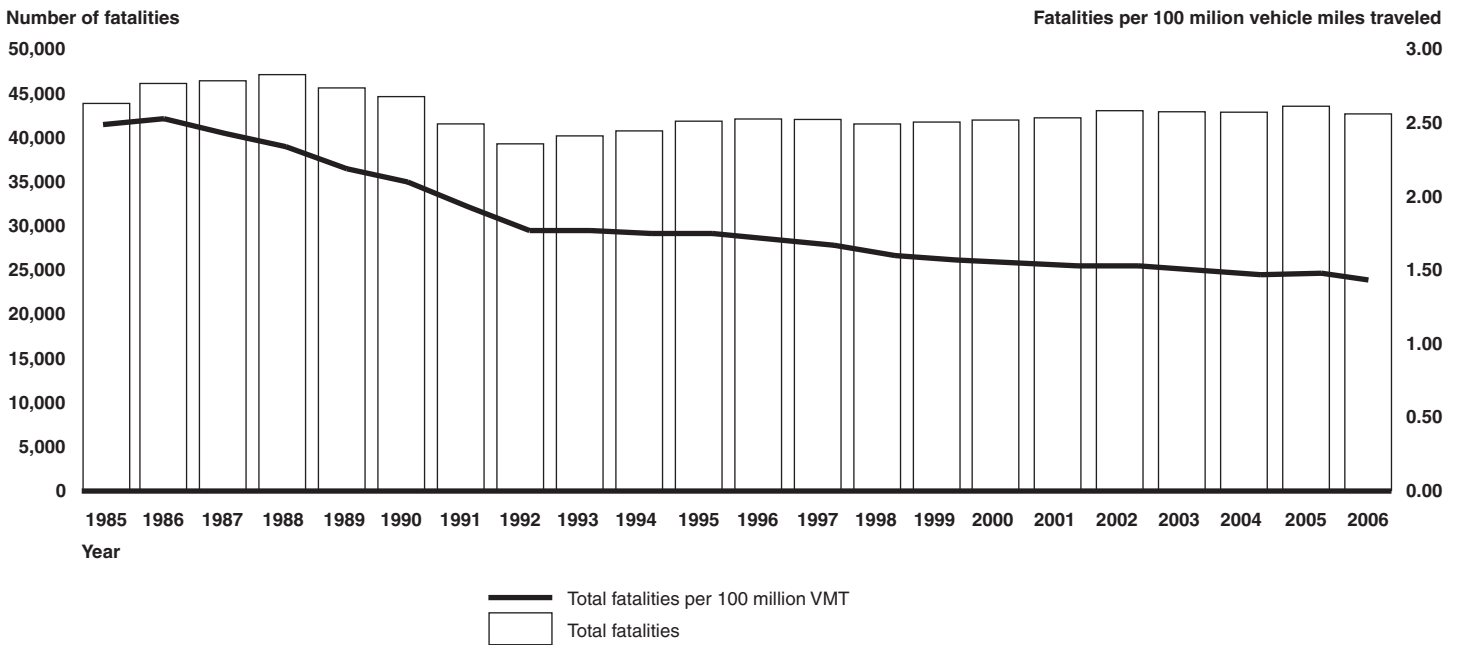
To improve NHTSA’s evaluations of the HVE campaigns, we recommend that the Secretary of Transportation direct NHTSA to develop a minimum core set of reporting requirements for states to report their federally funded HVE law enforcement and media activities. In addition, we recommend that the Secretary of Transportation direct NHTSA to include additional performance measures—such as a measure for nighttime safety belt use and additional measures of media effectiveness—in the agency’s annual evaluations of the effectiveness of the two campaigns. DOT officials generally agreed with the findings and recommendations.

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## Background

During 2006, more than 42,600 drivers, occupants, cyclists, and pedestrians died as a result of motor vehicle crashes. Over the 10-year period from 1997 through 2006, the number of motor vehicle fatalities per 100 million vehicle miles traveled (VMT) has decreased by 14.1 percent, from 1.65 to 1.41. However, the number of fatalities annually has remained relatively constant, showing only a slight increase of 1.5 percent, from 42,013 in 1997 to 42,642 in 2006 (see fig. 1).

**Figure 1: Total Fatalities and Total Fatalities per 100 Million Vehicle Miles Traveled (1985-2006)**



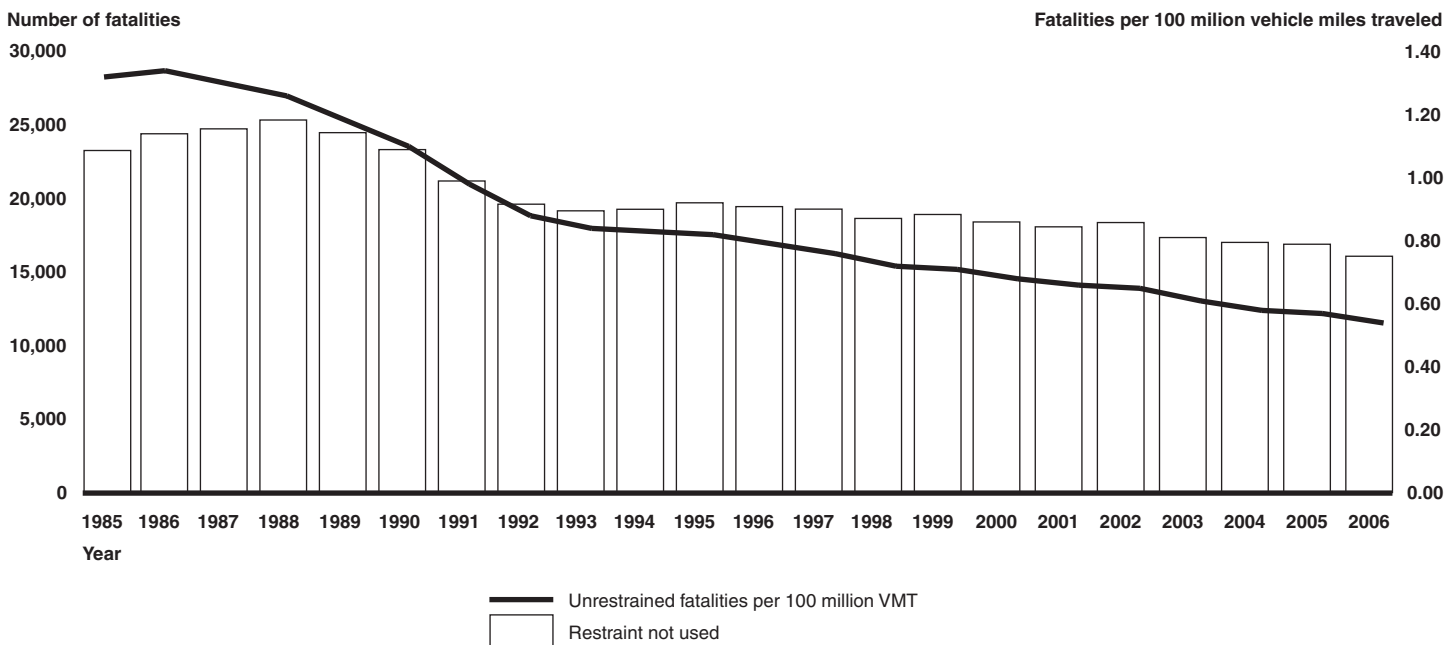
Source: GAO analysis of NHTSA and FHWA data.

Two primary behaviors related to fatal crashes are failure to use safety belts and driving while impaired by alcohol. Research has found that using lap and shoulder safety belts reduces the risk of fatal injury to front-seat passenger car occupants by 45 percent and light-truck occupants by 60 percent. Overall, unrestrained fatalities<sup>2</sup> have decreased over the last two decades. From 1985 to 2006, the number of unrestrained fatalities decreased from 23,236 in 1985 to 16,053 in 2006, while the unrestrained fatality rate decreased by 0.78, from 1.31 to 0.53 fatalities per 100 million vehicle miles traveled (see fig. 2). The greatest improvements were achieved from 1989 to 1993, a period when most states passed initial safety belt use laws. From 1984 to 1992, 8 states passed primary safety belt laws that allow law enforcement officers to stop a driver for not wearing a safety belt and issue a citation, and 33 states passed secondary safety belt

<sup>2</sup>Unrestrained fatalities are those in which the deceased was not wearing a shoulder belt, lap belt, lap and shoulder belt, child safety seat, or other restraint and were occupants (except bus passengers) of motor vehicles (except motorcycles, all terrain vehicles, or snowmobiles).

laws that allow law enforcement officers to issue a citation for not wearing a safety belt only after the driver has been stopped for a separate offense.

**Figure 2: Unrestrained Vehicle Occupant Fatalities and Unrestrained Fatalities per 100 Million Vehicle Miles Traveled (1985-2006)**



Source: GAO analysis of NHTSA and FHWA data.

Note: Data for 1985 through 1987 data included unknown restraint use in fatalities ranging from 12.6 percent to 18.0 percent compared with unknown restraint use from 1988 through 2006 of 7.2 percent to 10.6 percent.

While alcohol-impaired driving showed similar improvements from 1986 to 1994, progress has slowed, with a fluctuating number of alcohol-involved fatalities<sup>3</sup> and generally a declining alcohol-involved fatality rate from 1994 to 2006 (see fig. 3). From 1985 to 2006, the number of alcohol-involved fatalities decreased by 4,964 people per year, and the alcohol-involved fatality rate decreased by 0.63, from 1.13 to 0.50 fatalities per 100 million vehicle miles traveled. According to NHTSA, the improvements during the 1980s and early 1990s were influenced by the passage in 1984 of a law that

<sup>3</sup>Alcohol-involved fatalities include all fatalities in a motor vehicle crash where one or more involved drivers, pedestrians, or pedalcyclists in the crash had a blood alcohol content of 0.08 g/dL or greater.

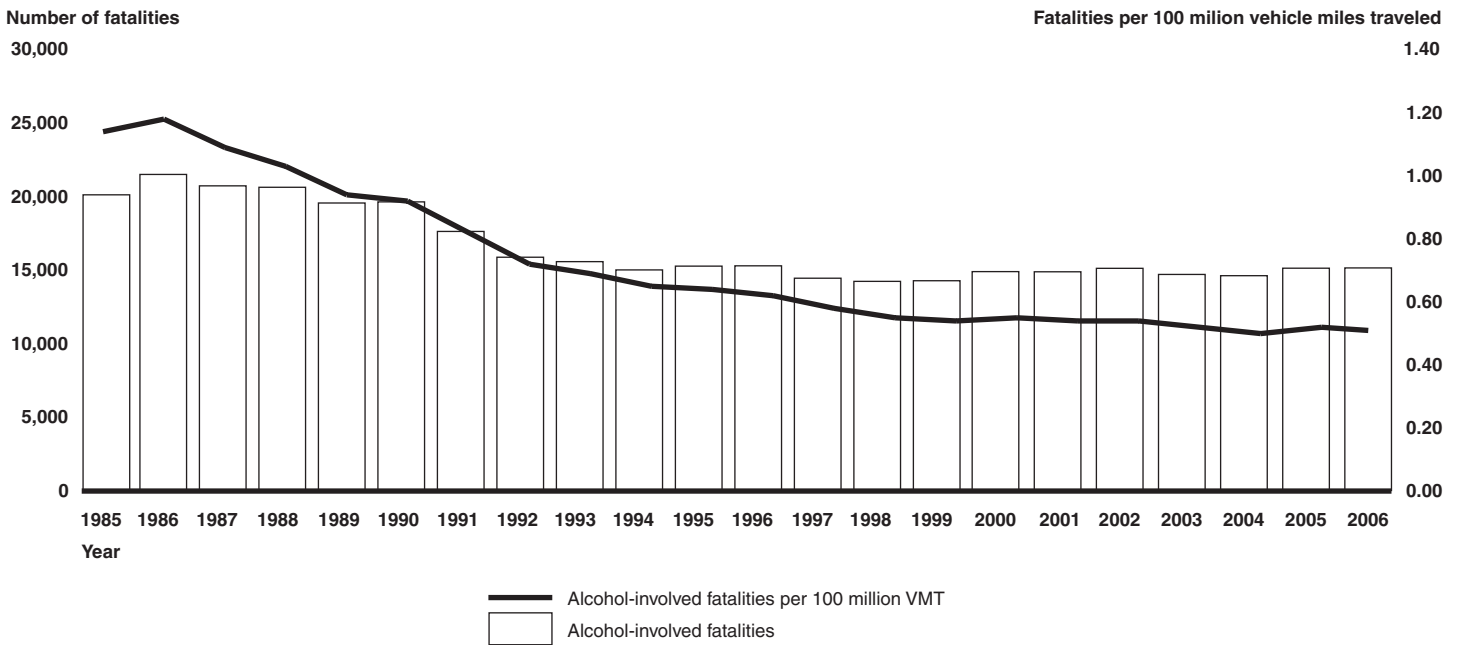
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withheld a portion of a state's federal highway funds unless the state established a 21-year-old minimum drinking age,<sup>4</sup> the efforts of two groups—the Presidential Commission Against Drunk Driving and Mothers Against Drunk Driving—to galvanize public opinion about the damage caused by impaired drivers, and states' efforts to strengthen their impaired-driving laws and increase enforcement of those laws. States received incentives to strengthen their laws and enforcement of the laws through the Transportation Equity Act for the 21st Century (TEA-21), which was enacted in 1998. For example, TEA-21 authorized incentive grants to states to enact a law to establish 0.08 blood alcohol content (BAC) as the legal limit for drunken driving offenses. The TEA-21 Restoration Act provided added incentives to encourage states to adopt an open container law that prohibits the possession of any open alcohol beverage container in a motor vehicle and enact a law that provides for specific penalties for individuals convicted of a second or subsequent drunken driving offense. For states that did not enact the open alcoholic beverage container and repeat drunken driving laws, the TEA-21 Restoration Act also included a provision to transfer a portion of those states' highway construction and maintenance funds to the state's highway safety program.

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<sup>4</sup>Pub. L. 98-363 specified that 10 percent of a state's apportioned funds for the National Highway System, the Surface Transportation Program, and interstate reconstruction and maintenance would be withheld if a state did not establish a 21-year-old minimum drinking age.

**Figure 3: Alcohol-Involved Fatalities and Alcohol-Involved Fatalities per 100 Million Vehicle Miles Traveled (1985-2006)**



Source: GAO analysis of NHTSA and FHWA data.

High-Visibility Enforcement (HVE) campaigns<sup>5</sup> have been found effective in the United States and other countries in helping to reduce these two primary risk behaviors associated with fatal crashes. An HVE campaign combines intensive enforcement of a specific traffic safety law with extensive communication, education, and outreach informing the public about the enforcement activity. For example, a safety belt campaign could include several weeks during which television and radio commercials warn motorists to buckle their safety belt or risk receiving a ticket from increased law enforcement patrols, coupled with zero tolerance enforcement of safety belt laws highly visible to motorists through law enforcement techniques such as checkpoints and saturation patrols. Such a combination of activities is designed to increase the public’s perception that people who violate the law will be ticketed, arrested, convicted, or punished, thereby persuading them to adhere to the law. HVE campaigns have been used for several decades in the United States and other countries to improve safety belt use and reduce impaired driving. Canada

<sup>5</sup>HVE campaigns are also known as Selective Traffic Enforcement Programs.

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initiated the first safety belt HVE campaigns in North America in the 1980s, during which time a 1-month program in Ottawa, Ontario, increased belt use from 58 percent to 80 percent. Based on the Canadian HVE campaigns, the community of Elmira, New York, conducted the first safety belt HVE effort in the United States in 1985 and raised its safety belt use rate from 49 percent to 77 percent in 3 weeks. Impaired-driving HVE campaigns have also been shown to be effective at reducing alcohol-impaired driving since 1967 in Britain and since 1980 in New Zealand. In the 1980s, law enforcement agencies around the United States began using sobriety checkpoints to deter impaired driving. For example, a yearlong checkpoint program in 1984 in Charlottesville, Virginia, was associated with a 13 percent reduction in alcohol-related crashes.<sup>6</sup>

While HVE campaigns have proved effective in the United States and other countries, selected other countries GAO reviewed generally have higher safety belt use rates and lower impaired-driving fatality percentages than the United States. For example, while the United States had a 2007 safety belt use rate of 82 percent, Canada had a 2006-2007 safety belt use rate of 93 percent, Australia has a safety belt use rate of around 96 percent, and the Netherlands had a 2005 safety belt use rate of 90 percent. An official from Canada noted that, while HVE campaigns in the 1980s and early 1990s had been successful in improving Canada's safety belt use rate, the rate has remained stagnant over the last 10 years and that approximately 40 percent of Canada's traffic fatalities still involved unbelted persons. The official attributed the lack of further progress to the fact that most of the last 10 percent of persons not wearing their safety belts are actively choosing not to wear the belts. Officials from Australia and the Netherlands noted that impaired-driving fatalities have been reduced in their countries because law enforcement officials are allowed to stop drivers at random to test the driver's breath for alcohol. However, this deterrent may be difficult to implement in the United States because other than at sobriety checkpoints (which are not allowed in some states), drivers cannot be stopped unless there is suspicious behavior or another traffic offense involved. Appendix II provides further details on HVE campaigns in other countries.

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<sup>6</sup>R.B. Voas, A.E. Rhodenizer, and C. Lynn, *Evaluation of Charlottesville Checkpoint Operation (final report)*, special report prepared at the request of the U.S. Department of Transportation, National Highway Traffic Safety Administration, May 1985.

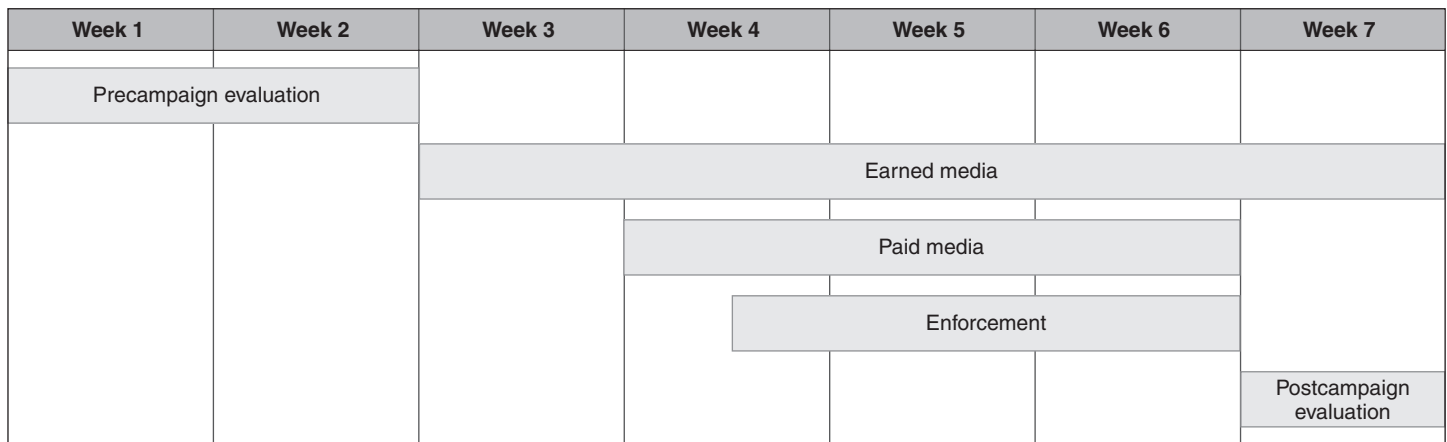
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The CIOT and OTLUA campaigns typically span about 7 weeks (see fig. 4). The CIOT campaign is conducted during May to coincide with Memorial Day, and the OTLUA campaign is conducted during August and September to cover Labor Day and again in December to cover the holiday season and New Year's Eve. The campaign activities conducted by NHTSA, state traffic safety offices, state law enforcement agencies, and local law enforcement agencies over the 7 weeks generally include the following:

- *Precampaign evaluation.* Data such as safety belt use and public knowledge and attitudes about traffic enforcement programs are collected prior to the campaign to provide a baseline. States generally collect these data through safety belt use surveys, department of motor vehicle driver surveys, and telephone surveys.
- *Earned media.* Earned media is unpaid coverage by broadcast and published news services, such as a press conference or press release provided by the state or local law enforcement officials. These media events are used to announce the upcoming campaign, bring news coverage to the ongoing enforcement effort, and update the public on the progress and results of the campaign.
- *Paid media.* Paid media includes advertisements on television and radio. NHTSA purchases these advertisements nationwide, which are strategically placed at times and places intended to maximize exposure to selected audiences. For example, advertisements targeted toward 21- to 34-year-old men who are more likely to drive impaired might air on sports programs during a time when the most people in the target audience are likely to be watching and listening. States may augment the national advertising with advertisements directed at state-level high-risk populations such as pickup truck drivers or with taglines to let the audience know that their local law enforcement agencies are involved in the campaign.
- *Enforcement.* Enforcement techniques by state and local law enforcement agencies may include aggressive enforcement by routine patrols, "saturation" patrols that increase the number of officers on patrol in a specific area, and stationary checkpoints along roadsides. States and local agencies may use traffic safety grant funds administered by NHTSA through their state highway safety office to provide the increased level of enforcement.
- *Postcampaign evaluation.* Data are collected by states and local agencies after the campaign in the same manner as the precampaign evaluations and compared with precampaign data to identify changes in awareness of

the enforcement effort, measure progress toward campaign goals, and measure the impact on traffic safety.

**Figure 4: HVE Campaign Activities and Timeline**



Sources: GAO and NHTSA.

Note: The timeline is a general representation of campaign activities. The actual timing of the activities varies slightly between the CIOT and the OTLUA campaigns.

Campaigns that were held prior to 2003—often referred to as Selective Traffic Enforcement Programs—typically relied on earned media such as unpaid television and radio news stories to advertise the campaigns; however, since 2003, Congress has funded nationwide paid advertising for safety belt and impaired-driving campaigns. The use of paid media allows advertisements to be placed at optimal times with high-quality messages so the campaign can better reach its target audiences and maximize the probability that the audience will pay attention to the advertisements, whereas earned media placement and frequency are usually controlled by station managers and may not be placed at optimal times. NHTSA used funds authorized under TEA-21 for activities such as developing and producing broadcast and print advertisements and providing media technical assistance to the states. Although TEA-21, when enacted, did not authorize funding to purchase national advertising for the campaigns, Congress appropriated funding of \$19 million in 2003 and \$24 million in 2004 and 2005 for NHTSA to provide paid national advertising for both campaigns. In 2005, SAFETEA-LU authorized \$29 million in each of fiscal years 2006 through 2009 for NHTSA to conduct a nationwide HVE program. The program requirements included developing and disseminating advertisements, coordinating with states, and annually evaluating the effectiveness of the program. NHTSA uses available funding



to purchase national media time and conduct evaluations for the campaigns (see table 1). NHTSA also uses funding from other highway safety programs to develop the advertising and includes campaign coordination efforts as a part of the agency’s ongoing coordination efforts with states for other highway safety programs. <sup>7</sup> NHTSA officials report that the increase in funding authorized by SAFETEA-LU—\$5 million above the annual funding level immediately prior to SAFETEA-LU—has allowed them to increase the visibility and frequency of advertising for the two enforcement campaigns during Memorial Day and Labor Day, as well as allowed them to provide additional national advertising for the impaired-driving campaign during the December holiday season.

**Table 1: Funding for HVE Paid Media and Evaluations, Fiscal Years 2003-2007**

Dollars in millions

Fiscal year	CIOT	OTLUA	Evaluation	Available funding
2003	\$8.00	\$11.00	\$0	\$19
2004	10.00	14.00	0	24
2005	9.92	13.89	0	24
2006	10.00	17.96	0.75	29
2007	10.00	18.25	0.75	29

Source: GAO analysis of NHTSA data.

States have used federal traffic safety grants authorized in TEA-21 and SAFETEA-LU—such as State and Community Highway Safety grants, Safety Belt Use grants, and Alcohol-Impaired Driving Countermeasures grants—to fund state and local campaign activities.<sup>8</sup> States and local governments use grant funds for activities such as paying overtime for law enforcement officials to conduct sobriety checkpoints and saturation patrols, purchasing paid advertising, training, conducting safety belt surveys, and buying enforcement equipment. The states and local

<sup>7</sup>NHTSA has also continued to fund media technical assistance, the development of advertisements and the production of advertisements through Highway Safety Research and Development Section 403 funds (i.e., for funds appropriated to carry out 23 U.S.C. § 403) and in fiscal year 2007 reported expending \$3,454,458.

<sup>8</sup>Information on the amount states spend on these activities is not available because NHTSA does not require states to report such information, and their grant tracking system reports on program areas such as occupant protection and not on components within the program such as HVE media.

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governments are also allowed to use highway safety funding to provide local advertising and educational campaigns in conjunction with the national media campaign. When included in the state's annual highway safety plan, a state may also conduct campaigns in addition to the national campaigns and provide sustained enforcement utilizing federal funds. States also use grant funds to purchase law enforcement equipment such as alcohol breath testers, radar units, and in-car video cameras to provide incentives for local law enforcement agencies to participate in the campaigns.

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## NHTSA Has Implemented the HVE Program but Could Improve the Annual Evaluations of Campaign Effectiveness

NHTSA has implemented the HVE program, including two high-visibility traffic safety law enforcement campaigns to improve safety belt use and reduce impaired driving. Specifically, to meet the requirements in place since SAFETEA-LU, NHTSA has (1) developed and disseminated advertisements, (2) coordinated with states to conduct the HVE campaigns, and (3) evaluated the results of the campaigns. However, the evaluations have shortcomings that limit NHTSA's ability to assess the level of state activity and the overall effectiveness of the campaigns.

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## NHTSA Has Developed an Advertising Plan, Created Advertising, and Purchased Media Time

To develop and disseminate advertising for the CIOT and OTLUA campaigns, NHTSA has developed an advertising plan and hired a contractor to create advertising materials for national and state use and purchase national media time. Since 2005, NHTSA has annually developed a National Communications Plan that sets forth a national HVE campaign advertising strategy. For example, the plan<sup>9</sup> specifies goals, dates, target audiences, and core campaign messages for the campaigns. The plan also identifies how the campaign advertising should be developed and purchased to cost-effectively reach target audiences and includes links to Web sites that contain additional guidance and advertising materials. State traffic safety agencies can use these materials and develop supplemental advertising materials following the guidance provided in the plan.

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<sup>9</sup>U.S. Department of Transportation, National Highway Traffic Safety Administration, *NHTSA National Communications Plan 2007* (Washington, D.C., January 2007).

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To create advertising materials, NHTSA contracts with a private advertising firm to provide technical assistance and ad production, including

- producing national ads,
- modifying or updating national and state ads,
- developing a national plan to purchase media,
- reviewing states' plans to purchase media, and
- negotiating and purchasing air time for national ads.

National ads are produced in several media formats and languages. Media formats include television, radio, magazines, newspapers, and alternative media. Broadcast television, cable television, and radio are the three most used media formats to advertise HVE campaigns, accounting for about 85 percent of the amount that NHTSA spends on campaign advertising. NHTSA has also begun to use the Internet to reach the target audience of young males by placing advertising messages into online games, social sites such as Face Book, and sports sites such as ESPN.com. These national ads are primarily produced in English and Spanish. NHTSA officials reported that they considered developing advertising for additional non-English-speaking populations and made the decision that it was not cost effective. However, they encourage states to develop materials for other non-English-speaking populations that are prevalent in the state's population. NHTSA's contractor also refreshes existing ads because, according to NHTSA officials, they can reduce costs by updating ads with new taglines or messages rather than creating new ads each year. For example, NHTSA darkened an existing television ad that had been filmed in the daytime to make it appear as though it were night to support an enforcement message for nighttime safety belt use.

To purchase media time for the national ads, the NHTSA contractor prepares a plan to purchase media for NHTSA's approval and release before each national campaign. This plan identifies the advertising period, the media budget, target audience profiles, a strategy for purchasing the media, and the allocation of funds for different media formats. The allocation is based on reaching the campaign target audience as frequently and cost effectively as possible, the target audiences' use of the various media types, and the cost of placing the advertisements. For example, prime-time broadcast television reaches many young men, but because it

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is expensive, NHTSA may build the desired frequency of reaching the young men with cable television or radio, which is less expensive. NHTSA is increasing funds allocated for Hispanic media outlets, based on fatality and census data, and alternative media outlets as young men spend more time on the Internet. For example, the allocation for Hispanic media for the impaired-driving campaign increased from 5 percent to 12 percent from 2004 to 2007, and the allocation for alternative media in the safety belt campaign has increased from 0 percent to 5 percent from 2004 to 2007.

Once NHTSA approves the plan to purchase media, the contractor negotiates with media providers—such as television or radio networks—to purchase media. The contractor also negotiates for value-added media, which is advertising time that a television or radio network may provide to NHTSA at no additional cost because the network supports the campaign message. After a campaign, the media contractor provides an analysis of the effectiveness of the media formats, including the extent to which the formats reached the target audience, the cost to reach the audience, and the dollar value of the value-added media.

The National Communications Plan, the plans to purchase media, and other resources that NHTSA uses to advertise its campaigns include elements of the key practices we have previously identified through an expert panel<sup>10</sup> as important to planning a consumer education campaign, motivating a target audience, and alleviating challenges in a campaign.<sup>11</sup> The key practices include the following:

- *Define goals and objectives.* NHTSA has established goals to reduce deaths and injuries from crashes on our nation's highways by increasing the number of people regularly using safety belts and decrease the number of impaired drivers on the road.
- *Analyze the situation.* NHTSA applies research, lessons learned, and other knowledge such as program evaluations to develop an integrated year-round marketing campaign designed to modify behavior with a

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<sup>10</sup>The expert panel included strategic communications and social marketing experts. We identified these elements in NHTSA's plans and resources but did not evaluate each element.

<sup>11</sup>GAO, *Digital Television Transition: Increased Federal Planning and Risk Management Could Further Facilitate the DTV Transition*, [GAO-08-43](#) (Washington, D.C.: Nov. 19, 2007).

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calendar of events timed to coincide with national holidays and celebrations, which have an increased number of traffic fatalities.

- *Identify stakeholders.* NHTSA engages national, state, and local partners, such as coalitions, highway safety offices, and law enforcement agencies across the country, to be involved in the calendar of events. In addition, the communications plan identifies the need to look for marketing alliances with sports organizations and other corporations that already carry powerful brands important to NHTSA's target audiences.
- *Identify resources.* Annual funding for the national campaigns is authorized in SAFETEA-LU through fiscal year 2009. NHTSA identifies the resources available for each campaign in the plan for purchasing media.
- *Research target audiences.* NHTSA reviews existing research and surveys to help segment and target the key audiences, identifying preferences, beliefs, competing behaviors, and motivators.
- *Develop consistent, clear messages.* The National Communications Plan specifies the need to maintain a strong CIOT and OTLUA brand-name status through consistency in presentation and broad geographical coverage.
- *Identify credible messengers.* The credibility of the message lies in the combination of the message with a high level of enforcement, creating a general deterrence effect that increases the public perception that drivers are likely to receive a citation. The advertisements use law enforcement officers, who increase the credibility of the message. Additionally, the messages are produced and presented through media intended to appeal to the intended target audience, such as teens, pickup truck drivers, and rural audiences.
- *Design media mix.* NHTSA identifies the target audiences and appropriate media for target audiences to allocate media funding.
- *Establish metrics to measure success.* NHTSA's media contractor analyzes the results of each campaign to evaluate whether the message reached the intended target audience in the time period intended, and NHTSA reports how the campaign reached the target market.

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## State Officials Report That NHTSA's Coordination Efforts Help Them Conduct Successful Campaigns

NHTSA coordinates with the states and provides resources to help states carry out the campaigns through several means, including the National Communications Plan, guidance on conducting HVE campaigns, technical assistance on advertisements, and collateral advertising materials. Officials in selected states reported that NHTSA's coordination efforts provided the support and interaction needed to successfully conduct HVE campaigns. For example, officials from one state noted that NHTSA assisted them in applying for federal traffic safety grants to conduct campaigns and provided tool kits that were useful in developing the campaigns. Officials from another state reported that NHTSA had improved the quality and timeliness of advertising materials, allowing them to devote more state resources to purchasing radio and television ads rather than developing the ads.

The annual National Communications Plan disseminates a strategy for states to conduct occupant protection and impaired-driving events throughout the year, including the CIOT and OTLUA campaigns. Specifically, the National Communications Plan sets out the following:

- a primary purpose for each event, such as “to support enforcement activities and to remind all partygoers of the dangers of impaired driving”;
- dates for the events;
- messages to be emphasized, such as “Drunk Driving, Over the Limit, Under Arrest”;
- primary and secondary target audiences, such as men, ages 21 to 34; and
- potential themes, such as “Buzzed Driving is Drunk Driving—Designate a Sober Driver.”

The National Communication Plan also provides links to Web sites containing guidance for states in conducting campaigns, such as [www.TrafficSafetyMarketing.gov](http://www.TrafficSafetyMarketing.gov). NHTSA also provides further guidance, such as the Uniform Guidelines for State Highway Safety Programs, which includes guidance for both occupant protection and impaired driving; and case studies of HVE campaigns, such as NHTSA's “Creating Impaired

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Driving General Deterrence—Eight Case Studies of Sustained, High-Visibility, Impaired-Driving Enforcement.”<sup>12</sup>

NHTSA also furnishes technical advice and collateral materials to assist states with advertising for the campaigns. To provide technical support to states, NHTSA’s contractor may, when requested by state officials, evaluate states’ proposed media purchases and make suggestions for improvement. The evaluation includes reviewing states’ proposed target demographics, budget, and purchase of advertising time to provide guidance on the appropriateness of the purchase. These evaluations are intended to help states effectively reach target audiences. NHTSA also provides collateral materials such as posters, Web banners, talking points, and model press releases. States may download these materials directly from NHTSA’s Web site. These materials are designed to support the various events set out in the National Communications Plan.

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### NHTSA’s Annual Evaluations Are Limited by Inconsistent and Incomplete Data

NHTSA’s annual evaluations of the HVE campaigns include information on the level of enforcement activity and the results of the campaigns based on performance measures, such as message awareness, earned media activity, safety belt use, and fatality and injury statistics.<sup>13</sup> For example, the CIOT evaluation<sup>14</sup> includes information on the number of law enforcement agencies that reported enforcement activities and the number of safety belt citations issued by these agencies; this information showed that the number of citations issued increased from 2004 to 2005, even though the number of reporting agencies declined. Regarding message awareness, the OTLUA annual evaluation<sup>15</sup> includes information from NHTSA’s annual national telephone surveys, which found that the impaired-driving

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<sup>12</sup>U.S. Department of Transportation, National Highway Traffic Safety Administration, *Creating Impaired Driving General Deterrence: Eight Case Studies of Sustained, High-Visibility, Impaired-Driving Enforcement* (Washington, D.C., March 2006).

<sup>13</sup>NHTSA issued its evaluation of the May 2005 CIOT Campaign in May 2007, and the evaluation of the Impaired Driving Campaigns for 2003-2005 in July 2007. NHTSA plans to release evaluations of the 2006 campaigns—the first year of the national advertising campaigns authorized by SAFETEA-LU—in the spring of 2008.

<sup>14</sup>U.S. Department of Transportation, National Highway Traffic Safety Administration, *Evaluation of the May 2005 Click It or Ticket Mobilization to Increase Seat Belt Use*, Report No. DOT HS 810 778 (Washington, D.C., May 2007).

<sup>15</sup>U.S. Department of Transportation, National Highway Traffic Safety Administration, *Evaluation of the National Impaired Driving High-Visibility Enforcement Campaign: 2003-2005*, Report No. DOT HS 810 789 (Washington, D.C., July 2007).

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message was reaching the general public—especially the 18- to 34-year-old target audience—although the awareness did not carry over from campaign to campaign.<sup>16</sup> The CIOT report showed that safety belt use rates generally increased following the 2005 campaign, and the OTLUA report showed that the number of alcohol-impaired drivers involved in fatal crashes decreased overall from 2001 to 2005.

However, the data on HVE campaign activity—such as the number of agencies participating in the campaigns, hours worked by law enforcement officers, citations issued, DUI enforcement actions, and advertisements purchased by states—that states report to NHTSA are not complete or consistent; this situation limits NHTSA’s ability to evaluate the overall level of state enforcement and advertising activity and the extent to which states use federal funding—through traffic safety grants—to support HVE campaigns. Because these campaigns—other than the media developed and purchased by NHTSA—are carried out by states, these data are the only way to determine whether the level of activity is changing from year to year and whether NHTSA is effectively leveraging state and local resources. According to NHTSA officials, states are not required to report all HVE activity, although in recent years states have voluntarily reported the level of activity for selected law enforcement agencies—generally those agencies that receive federal grants for HVE activities.<sup>17</sup> However, such voluntary reporting can cause substantial variances in data from campaign to campaign and year to year. For the campaigns conducted from 2003 through 2006, an average of three states did not report on campaign activity for each campaign, and between 22 percent to 52 percent<sup>18</sup> of the law enforcement agencies that indicated they would participate in the campaigns did not report on campaign activity.

Of the agencies that do report, the data reported are not consistent among law enforcement agencies or states. For example, some agencies include

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<sup>16</sup>This information is based on annual telephone surveys on the effectiveness of impaired-driving campaigns from 2003 through 2005. NHTSA officials also conducted regional telephone surveys for the CIOT campaign in 2006 and a national telephone survey for the CIOT campaign in 2007; data from these surveys will be included in NHTSA’s 2006 and 2007 evaluations. NHTSA reported the 2006 evaluation should be released in March 2008 and the 2007 evaluation in the spring of 2009.

<sup>17</sup>States that receive Alcohol-Impaired Driving Countermeasures Incentive Grant funds are required to report on HVE activities those funds support.

<sup>18</sup>Percentage is based on NHTSA data collected from states, the District of Columbia, and Puerto Rico.



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all activities and others include only the federally funded portion of their activities. In addition, some states only require a portion of the activities to be reported by agencies and leave reporting on other NHTSA requested activities as optional. As a result, the types of activity data collected from state to state vary. For example, in the May 2006 CIOT campaign, while 49 states reported having participating agencies, only 37 states reported the hours worked and only 36 states reported the number of earned media TV spots. Due to these inconsistencies, NHTSA has reported that it is not possible to provide meaningful analyses and comparisons of state activities to conduct HVE campaigns.

NHTSA and Governors Highway Safety Association (GHSA) officials stressed that law enforcement agencies are less likely to report if they receive little or no federal highway safety grant funding for enforcement activities. GHSA officials—who represent the state highway safety offices—suggested that simplifying reports and limiting the amount of data required may improve reporting. While it is important for NHTSA to limit reporting requirements for states, state and local law enforcement is a critical component of HVE campaigns that NHTSA currently cannot measure. A minimum set of core reporting requirements—such as the number of agencies reporting data, number of law enforcement labor hours applied to the mobilization, number of impaired-driving arrests made during the mobilization, number of safety belt violation citations issued, and amount spent on television, radio, print, and other ads from agencies that receive federal funding for these activities—would minimize the reporting burden while allowing NHTSA to more thoroughly and consistently measure the level of state activity over time and provide accountability for federal funding.

To learn more about the extent of participation by local law enforcement agencies, NHTSA collected information from a sample of law enforcement agencies that conducted campaigns independent of the national mobilization evaluations or that had received federal traffic safety grants. NHTSA sought a representative sample of law enforcement agencies that had at least 10 years of citation and arrest data on a monthly basis in order to track enforcement activities over time and compare enforcement activities before, during, and after the CIOT and OTLUA campaigns. The results of this data collection effort will be reported in the Evaluation of the 2006 CIOT Campaign (to be released later in 2008). This attempt to obtain more reliable and representative information has faced several obstacles, including difficulties in defining a representative sample of law enforcement agencies, locating and securing the cooperation of agencies

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that had 10 years of citation and arrest data, and finding agencies that would provide the data on a monthly basis.

NHTSA's effort to evaluate the effectiveness of the HVE campaigns is also hindered, in part, because NHTSA's performance measures are not comprehensive. For example, while NHTSA measures the change in daytime safety belt use for the driver and right front passenger in passenger cars, vans, sports utility vehicles, and pickup trucks, it does not directly measure nighttime safety belt use, despite recent efforts to increase the use of safety belts at night. Specifically, NHTSA is working with the states of Washington, North Carolina, and West Virginia in pilot programs to evaluate the use of different enforcement strategies for increasing nighttime safety belt use. NHTSA and the states expect to report the results of these pilot programs by the end of 2008. In addition, NHTSA is preparing an enforcement guide on the different approaches states may use for nighttime enforcement during the 2008 CIOT campaign.

The annual evaluations also include limited information on performance measures for the effectiveness of NHTSA's advertisements. For example, while the evaluations include information on the extent to which the advertisements are reaching the primary target audience, the evaluations did not measure the extent to which the advertisements reached special-emphasis audiences identified in the 2005 National Communications Plan,<sup>19</sup> such as pickup truck drivers and Hispanics for the CIOT campaign. The impaired-driving report also did not evaluate the extent to which the advertisements had reached other targeted audiences, such as college students, men ages 35 to 59, and young women 21 to 25 who were also identified in the 2005 National Communications Plan,<sup>20</sup> and did not include the media dollar allocation to show how NHTSA had advertised to non-English-speaking populations and used nontraditional media.<sup>21</sup> Without this information, NHTSA cannot evaluate the extent to which the campaigns are meeting the goals set out in the National Communications Plans.

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<sup>19</sup>U.S. Department of Transportation, National Highway Traffic Safety Administration, *2005 National Communications Plan* (Washington, D.C., November 2004).

<sup>20</sup>While the 2005 Integrated National Communications Plan listed these other target audiences, the summary of the 2005 Impaired Driving Campaign shown in the appendix of the 2006 National Communications plan shows these additional targeted audiences were replaced with a "Newly Arrived Latino Immigrants" secondary target audience.

<sup>21</sup>Media allocation was reported in an appendix of the 2006 National Communications Plan.

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NHTSA officials recognize the need for more comprehensive performance measures, and—through a contractor—the agency is developing additional performance measures to address these issues. The statement of work for the contractor specifies that the purpose of the project is to develop a minimum set of performance measures that could be used by federal, state, and local governments for traffic safety areas, including high-visibility enforcement campaigns. The deadline for this work is August 2008. However, NHTSA officials stated that the key requirement for developing effective performance measures is accurate and comprehensive data and that existing data available to states are not sufficient to mandate more specific performance measures. As a result, NHTSA plans to recommend—not require—the new performance measures to states. It is unlikely that all states will voluntarily report the same performance indicators in a consistent and comprehensive manner sufficient to allow national comparisons without specific required measures.

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### **Selected State Officials Report That HVE Campaigns Are Contributing to Increased Safety Belt Use and Reduced Fatalities, but Several Challenges Hinder Further Progress**

According to officials in selected states we visited, HVE campaigns are contributing to increased safety belt use and reduced alcohol-involved fatalities. From 1997 to 2006, safety belt use increased in all seven of the selected states, and four of those states exceeded the 2006 NHTSA goal for safety belt use (82 percent). In addition to increases in safety belt use, from 1997 to 2006, each selected state's alcohol fatality rate decreased, and, in 2006, five of the seven states met the NHTSA goal pertaining to alcohol-involved fatality rates. Despite the gains made so far, officials from these states reported facing several challenges: increasing safety belt use and reducing impaired driving among resistant populations; insufficient staff to conduct the campaigns; and weak prosecution of DUI arrests. NHTSA and the states are taking steps to help address these challenges.

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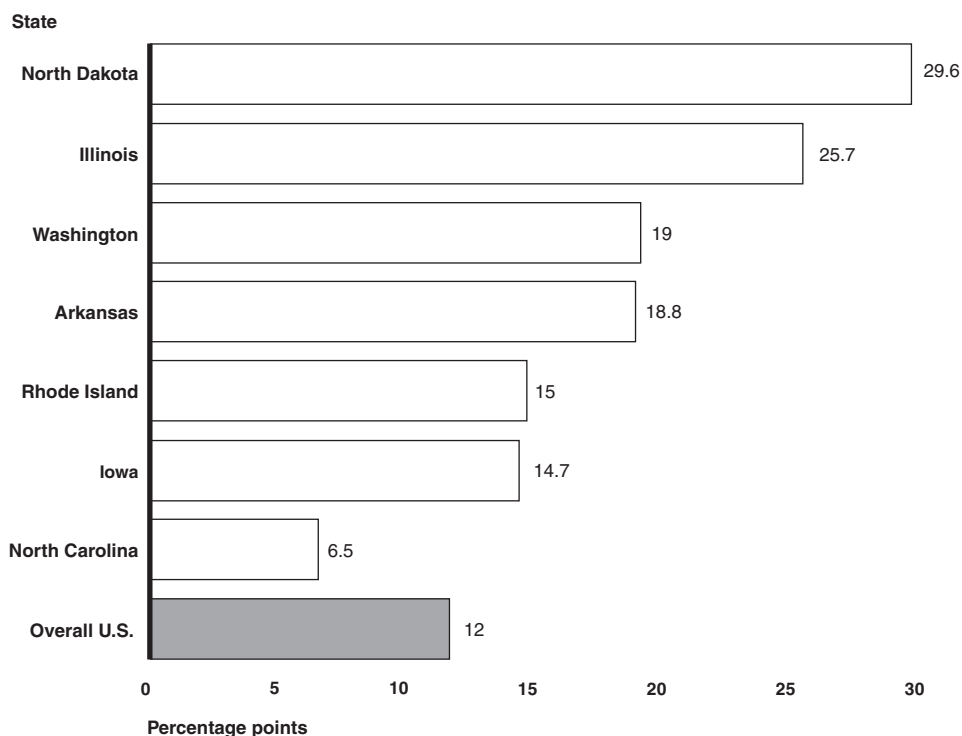
### **Officials in Selected States Report That HVE Campaigns Are Contributing to Increased Use of Safety Belts and Reduced Fatalities from Impaired Drivers**

HVE campaigns are contributing to increased safety belt use and reduced alcohol-involved fatalities, according to officials in selected states we visited. Specifically, all of the selected states experienced increased safety belt use and reduced alcohol-involved fatality rates in the last 10 years, and state officials attributed these improvements, in part, to participation in HVE campaigns.

According to NHTSA data, between 1997 and 2006, safety belt use increased in all of the selected states, although some states experienced

larger increases than other states. According to NHTSA survey data on safety belt use, the increase in safety belt use from 1997 to 2006 ranged from a 6.5 percentage point increase in North Carolina to a 29.6 percentage point increase in North Dakota. The overall increase in safety belt use nationwide from 1997 to 2006 was 12 percentage points (see fig. 5).

**Figure 5: Increase in Safety Belt Use for Selected States Compared with Overall U.S. Increase (1997-2006)**



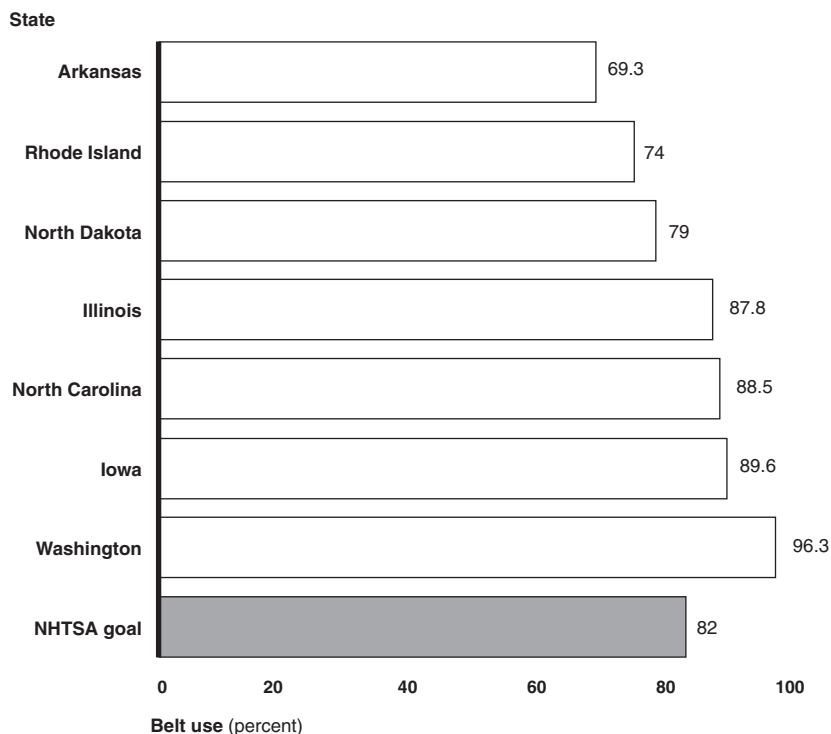
Source: GAO analysis of NHTSA data.

The range in improvements in safety belt use rates from 1997 to 2006 can be attributed in part to the safety belt use rate each state had achieved by 1997. For example, in 1997, North Carolina had achieved an 82 percent safety belt use rate, which exceeded the U.S. average safety belt use rate of 69 percent at that time. In contrast, North Dakota’s safety belt use rate in 1997 was only 49 percent.

In 2006, safety belt use in the seven selected states ranged from 69 percent in Arkansas to 96 percent in Washington. Nationwide, safety belt use in 2006 ranged from a low of 64 percent in New Hampshire and Wyoming to

Washington’s 96 percent. Safety belt use in four of the selected states we visited—Illinois, Iowa, North Carolina, and Washington—exceeded the 2006 NHTSA safety belt use goal of 82 percent. All four of these states had a primary safety belt law in place by 2006. Safety belt use rates for 2006 in Arkansas, Rhode Island, and North Dakota—states without a primary safety belt law—fell short of the 2006 federal goal (see fig. 6).<sup>22</sup>

**Figure 6: Safety Belt Use Compared with Federal Goal, Selected States (2006)**



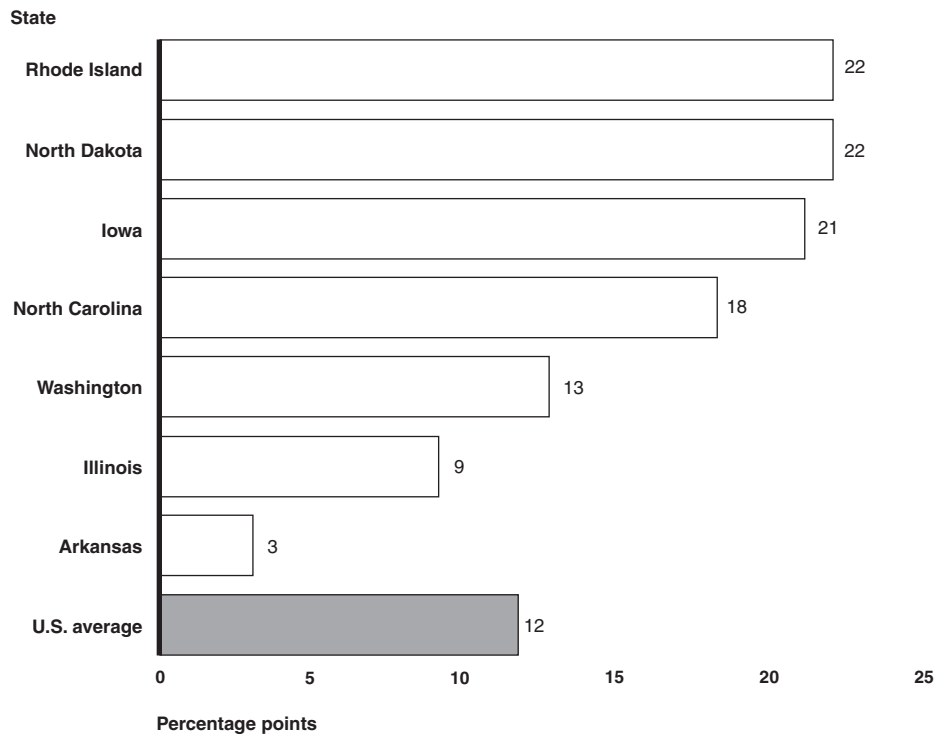
Source: GAO analysis of NHTSA data.

According to officials, selected states’ HVE campaigns are also contributing to reducing alcohol-involved fatality rates. From 1997 to 2006, all of the selected states experienced a decrease in alcohol-involved fatality rates. The decrease in the alcohol-involved fatality rate during this

<sup>22</sup>In general, throughout the U.S., safety belt use rates are higher in primary law states, but some states without a primary law have safety belt use rates that are higher than the nationwide average. Minnesota, Nevada, Ohio, Pennsylvania, Utah, Vermont, and West Virginias—states without a primary safety belt law according to NHTSA—experienced 2006 safety belt use rates that were higher than the nationwide average of 81 percent.

period ranged from 22 percent in Rhode Island and North Dakota to 3 percent in Arkansas. Five of the seven selected states experienced declines in alcohol-involved fatality rates that were greater than the overall U.S. decrease of 12 percent (see fig. 7).

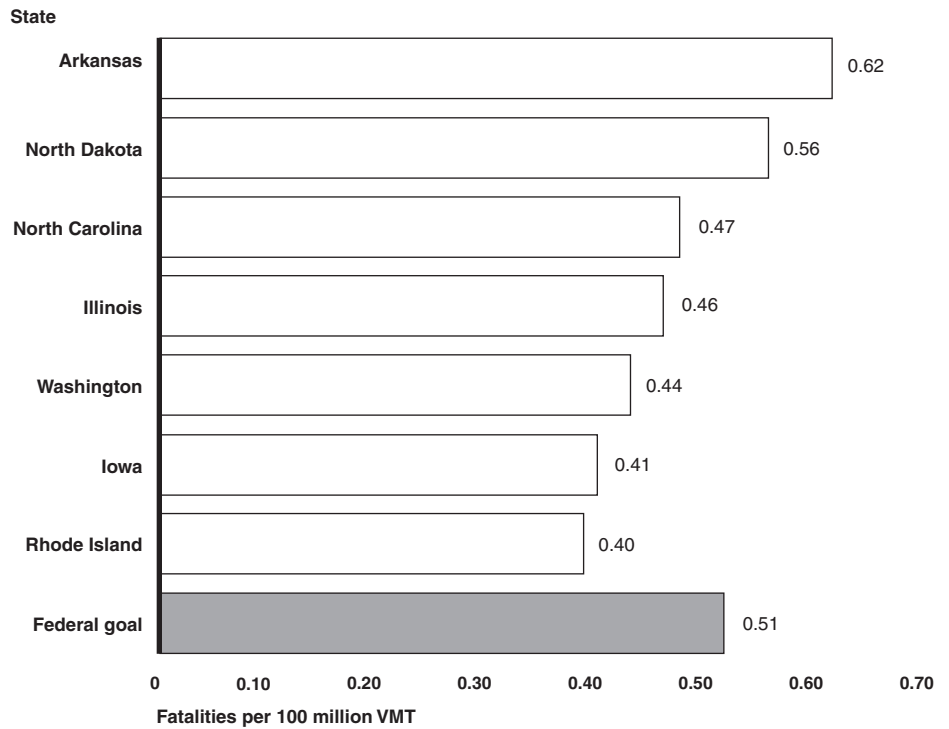
**Figure 7: Decrease in Alcohol-Involved Fatality Rate per 100 Million Vehicle Miles Traveled for Selected States Compared with Average Decrease in the United States (1997-2006)**



Source: GAO analysis of NHTSA and FHWA data.

In 2006, alcohol-involved fatality rates in the seven selected states ranged from 0.62 fatalities per 100 million vehicle miles traveled in Arkansas to 0.4 in Rhode Island. Nationwide, the average alcohol-involved fatality rate in 2006 was 0.50 fatalities per 100 million vehicle miles traveled. In 2006, five of the seven selected states experienced fatality rates that were lower than the NHTSA goal of 0.51 fatalities per 100 million vehicle miles traveled. North Dakota and Arkansas experienced alcohol-involved fatality rates in 2006 that fell short of the NHTSA goal (see fig. 8).

**Figure 8: Fatalities with a BAC of 0.08 or Greater per 100 Million Vehicle Miles Traveled for Selected States Compared with Federal Goal (2006)**



Source: GAO analysis of NHTSA and FHWA data.

Officials from the selected states we visited also identified other benefits that result from participating in HVE campaigns. For example, North Carolina and Iowa officials said that, during HVE campaigns, the additional officers staffing checkpoints or on patrol are able to apprehend suspects in other crimes and write citations for traffic violations such as speeding; this increased level of enforcement activity contributes to improvements in overall traffic safety. For example, during a 2006 CIOT campaign in North Carolina, the state Department of Transportation reported that it issued over 23,000 speeding tickets but also arrested 699 fugitives and recovered 141 stolen vehicles. Iowa officials also said that HVE campaigns yield benefits in that they will often find drugs or stolen property when stopping vehicles, and the campaigns serve to improve relationships between law enforcement personnel and the community. In addition, another benefit is that law enforcement agencies can use the equipment purchased for HVE campaigns—such as patrol cars, vehicle cameras, and BAC testing equipment—to enhance traffic safety enforcement efforts throughout the year.

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## Selected States Face Several Challenges in Conducting HVE Campaigns

Despite the gains made so far, several challenges hinder further progress in carrying out the HVE campaigns. The challenges cited by officials from the states we visited include: increasing safety belt use and reducing impaired driving among resistant populations; insufficient staff to conduct the campaigns; and weak prosecution of DUI arrests. Reviews of NHTSA's HVE campaigns from DOT's Office of the Inspector General and the National Transportation Safety Board (NTSB) have found similar challenges.<sup>23</sup>

### Challenge in Increasing Safety Belt Use and Reducing Impaired Driving among Resistant Populations

Officials in selected states face the challenge of increasing safety belt use and reducing impaired driving among resistant populations, such as drivers in rural areas, pickup truck drivers, and hardcore drinking drivers. For example, statistics show that more drivers in rural areas resist wearing safety belts. Though recent progress has been made, in general, rural areas have a higher proportion of fatal crashes and traffic fatalities than in urban areas. In a recent NHTSA analysis of urban and rural fatalities, NHTSA reported that rural fatalities accounted for 55 percent of fatal crashes and 57 percent of traffic fatalities in 2006 even though only 23 percent of the U.S. population lived in rural areas, according to 2006 Census estimates.<sup>24</sup> Several factors in addition to lower safety belt use contribute to this disparity, including higher alcohol-involved crash rates, higher speed, rural roads that are narrow or have sharp curves, and less access to emergency services in rural areas. Crashes in rural areas are also more likely to involve occupants who are ejected from vehicles because they are not wearing safety belts. According to one study, of the 5,959 people who died in rural crashes where a vehicle occupant was ejected or partially ejected from the vehicle, 92 percent were unbelted or were not properly restrained in a child safety seat. Statistics show that pickup truck drivers are also resistant to changing their safety belt habits. Compared with other drivers,

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<sup>23</sup>Since we used a nongeneralizable sample of seven states, these challenges should not be used to make inferences about challenges in all states that implement HVE campaigns. For similar challenges, see: Statement of The Honorable Calvin L. Scovel III, Inspector General, U.S. Department of Transportation on the Effectiveness of Federal Drunk Driving Programs, Senate Committee on Environment and Public Works, Subcommittee on Transportation Safety, Infrastructure Security, and Water Quality, *Oversight Hearing on Effectiveness of Federal Drunk Driving Programs*, 110th Cong., 1st sess., October 25, 2007; and Testimony of Mark V. Rosenker, Chairman, National Transportation Safety Board, Senate Committee on Environment and Public Works, Subcommittee on Transportation Safety, Infrastructure Security, and Water Quality, *Oversight Hearing on Effectiveness of Federal Drunk Driving Programs*, 110th Cong., 1st sess., October 25, 2007.

<sup>24</sup>NHTSA, *Traffic Safety Facts: Rural/Urban Comparison*, DOT HS 810-812 (2006).



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pickup truck drivers are more resistant to wearing safety belts. In 2007, according to NHTSA, 72 percent of pickup truck drivers were belted compared with 84 percent of passenger car drivers. This lower safety belt use by pickup truck drivers and their passengers can lead to more vehicle occupant ejections and fatalities.

NHTSA and the states are taking steps to increase rural safety belt use and have developed programs targeting pickup truck drivers. In 2006, for example, a NHTSA report outlined several strategies that states and local communities could use to improve their rural safety belt programs and provided examples of leading enforcement and communication programs in many states.<sup>25</sup> Illinois, one of selected states we visited, targeted rural safety belt use in 2005 by participating in a NHTSA Great Lakes Region Rural Demonstration program. The program involved intensified enforcement and paid media to alert residents in targeted rural areas that safety belt laws would be enforced. During the program, Illinois aired television and radio ads in five media markets that include rural areas and conducted safety belt enforcement zones by stopping vehicles if an unbuckled occupant was observed. Observational surveys of safety belt use in the targeted rural areas in Illinois showed belt use increased from a baseline of 78.5 percent before the Rural Demonstration program to 81.5 percent after the program. Other states are also taking steps to increase safety belt use in rural areas. For example, Washington state developed a corridor program to improve traffic safety and safety belt use for one of its rural roads by increasing enforcement and installing signs to remind drivers to buckle up. Another example is in Iowa, where a rural youth organization expanded a program called “Farm Safety Just 4 Kids” to improve safety belt use among younger drivers in rural areas.

NHTSA and the states have also taken actions to address the challenge of increasing belt use by drivers and occupants of pickup trucks. For example, in 2000, NHTSA initiated a study to identify safety belt use rates and important characteristics of pickup truck drivers and passengers, review public information campaigns intended for pickup truck drivers, obtain qualitative information about pickup truck drivers’ knowledge and attitudes about safety belt use, and make suggestions for the development of future campaigns targeting pickup truck drivers. Some of the selected states, in concert with NHTSA, have participated in special campaigns that

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<sup>25</sup>NHTSA, *Traffic Crashes Take Their Toll on America’s Rural Roads: The Need to Establish Rural Seat Belt Programs*, DOT HS 810-658 (December 2006).

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are designed to increase safety belt use in pickup trucks. Both Arkansas and North Carolina, working with their NHTSA regional offices, participated in safety belt campaigns in 2006 called “Buckle Up in Your Truck.” In Arkansas, the campaign ran during 2 weeks in May, and the ads for the campaign aired in five media markets. The ads ran at times and on programs that are popular with young males who are more likely to be driving pickup trucks. An analysis of a 2005 “Buckle Up in Your Truck” campaign in Alabama showed a greater than 4 percent increase in safety belt use in pickup trucks.

Officials in selected states also face the challenge of reducing impaired driving among hardcore drinking drivers. Hardcore drinking drivers are those who drive with a BAC of 0.15 or greater. According to the NTSB, hardcore drinking drivers are involved in 54 percent of alcohol-involved fatalities, and these drivers are likely to be repeat drinking drivers. NHTSA and the states have taken steps to address this challenge. In August 2007, NHTSA recommended increased use of ignition interlock devices—an in-car breath tester connected to the ignition that prevents the vehicle from starting if the device registers a BAC over a specified limit—as part of a penalty against repeat drunken driving offenders. In addition, NHTSA has published uniform guidelines for state highway safety programs that call for states to enact laws such as high BAC and repeat offender laws with increased sanctions for each offense. Many states have enacted these laws. For example, 39 states and the District of Columbia impose higher penalties for drivers with BAC levels of 0.15 and above. In addition, 43 states and the District of Columbia have repeat offender laws to discourage multiple alcohol offenses. All of the seven selected states have enacted these laws.

### Challenge in Staffing

Another challenge that hinders further progress in increasing safety belt use and reducing impaired driving is that law enforcement agencies report that they do not always have a sufficient number of officers to conduct HVE campaigns, even though traffic safety grants can be used for law enforcement officers to staff checkpoints or saturation patrols. This shortage of officers may affect HVE activities that occur during normal work hours and when HVE activities are staffed by officers working overtime.

The challenge of finding a sufficient number of officers to conduct HVE campaign work during normal work hours can occur for various reasons. For example, some law enforcement agencies said they do not have sufficient staffing levels to conduct both regular police work and frequent HVE campaign enforcement activities. In one city we visited, crime

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enforcement needs took priority over traffic enforcement, officials said. For example, until recently, Providence, Rhode Island, devoted most of its policing resources to reducing violent crime. However, with a reduction in violent crime, Providence has been able to increase the number of officers working on traffic safety and HVE campaign activities. Officials also stated that regular staffing levels were being depleted because many of their officers have been called up for duty in the armed forces. Other factors that impact police department staffing levels, according to one 2005 study, include additional homeland security duties in many jurisdictions that lead to an increased workload for local police, as well as a potentially smaller pool of qualified applicants because of previous drug use and lack of physical condition. In addition, some law enforcement agencies may have too few personnel to conduct HVE activities—staffing a full-scale sobriety checkpoint, for example, can require 10 or more officers.

In addition to the challenge of finding sufficient staff for HVE activities during regular hours, officials in some of the law enforcement agencies we visited reported that they are also having a difficult time getting enough officers to sign up for overtime to work on HVE campaigns. For example, officials in North Dakota, Rhode Island, and Washington said that one of the challenges in getting a sufficient number of officers to work overtime is that there are often other opportunities for overtime work, such as working in a work-zone patrol car at a highway construction site or as a security guard at a mall. Some officers prefer these opportunities over DUI enforcement because DUI enforcement involves a greater amount of effort and paperwork compared with other duties.

Though NHTSA continues to provide funding through traffic safety grants, NHTSA has taken other steps to assist state and local law enforcement agencies in providing adequate staff for HVE campaigns. For example, NHTSA provides funds that states can use to provide equipment, such as breath-testing units, that are used as incentives to improve participation. NHTSA also provides guidance on how to make better use of existing resources. For example, NHTSA created a set of guidelines on sobriety checkpoints that outlines ways that small law enforcement agencies with limited staff can conduct effective sobriety checkpoints with fewer officers.

States are also taking steps to address the staffing challenge. For example, to encourage officers to participate in enforcement campaigns, some states have developed programs to recognize officers for their contributions. In 2006, the Rhode Island Office of Highway Safety increased recognition for HVE work by giving awards to officers who

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worked overtime in enforcement campaigns targeting drunken driving and drivers not wearing safety belts. In addition, Arkansas has initiated a recognition program for exemplary performance in DUI work. One way of addressing staffing limitations in states with relatively small, neighboring law enforcement agencies is to conduct multijurisdictional enforcement activities. By pooling operations, according to NHTSA officials, 5 to 10 small agencies are able to concentrate appreciable resources during an HVE campaign mobilization period. For example, North Dakota is developing a multiagency approach to address the challenge of bringing together sufficient resources to staff DUI checkpoints.

## Weak Prosecution of DUI Arrests

Another challenge for implementing HVE campaigns is weak prosecution of DUI arrests. Based on our interviews with selected state and NHTSA officials and our review of reports and studies, the main factors that contribute to weak DUI prosecution are as follows:

- Court systems have heavy caseloads and limited resources. Therefore, DUI cases may be given a lower priority compared with more violent crimes. According to a 2002 panel convened by the National Association of State Judicial Educators, this results in prolonged adjudication of DUI cases and increased likelihood of dismissals and acquittals.<sup>26</sup> States often lack sufficient funds to establish special courts to more effectively process DUI cases and to provide the supervised probation and treatment that DUI offenders often require.
- Some law enforcement officials and prosecutors lack the necessary knowledge and training to consistently prosecute DUI cases. In some cases, the DUI charge may be dismissed because an officer lacks proper training. For example, an arresting officer may not have taken enough notes on the DUI arrest to testify in sufficient detail during the trial. In other cases, the DUI charge may be dismissed because the prosecutor did not have sufficient training to effectively prosecute DUI cases. However, many prosecutors view themselves as often not sufficiently prepared for their first DUI cases. A 2002 survey of prosecutors found that 48 percent believed they did not have adequate training or preparation before they began handling DUI cases. In addition, prosecutors and judges have to be knowledgeable in the complex aspects of DUI cases, including relevant legal rulings and admissibility of evidence as well as more scientific and technical issues such as blood alcohol testing procedures. The National

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<sup>26</sup>National Association of State Judicial Educators and The Century Council, *Hardcore Drunk Driving Judicial Guide* (Washington, D.C., 2002).

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Association of State Judicial Educators (NASJE) panel cited several challenges that judges handling DUI cases face, including that DUI cases are frequently plea-bargained, which may undermine the deterrent value of the arrest.

Though states have a primary role in improving prosecution, NHTSA has provided guidance, funded training programs, and provided grants to states that can be used for more effective prosecution of DUI offenders.<sup>27</sup> In February 2007, in cooperation with the National District Attorneys Association, NHTSA issued guidelines for improving testimony, note taking, and evidence gathering procedures by officers. NHTSA has also developed courses designed to improve prosecutorial skills, including one course on prosecuting DUI cases and another course that examines complex cases involving alcohol-involved crashes and provides training on how to prosecute these cases effectively and respond to challenges presented by the defense.<sup>28</sup> NHTSA has also provided funding for systems that allow states to share information on effective DUI prosecution. For example, with NHTSA funding, NASJE is developing a clearinghouse for the exchange of materials, techniques, and information on DUI prosecution.

Selected states have also developed initiatives to address the challenge of more effectively prosecuting DUI cases. For example, Arkansas has developed a judicial training project initiative that includes training for judges and officers on DUI prosecution and additional training for about 400 officers on conducting field sobriety testing. In June 2006, Illinois used HVE 410 grant funding to conduct a 2-day seminar for 23 judges, which included training on sentencing and evidentiary issues.

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## Conclusions

HVE enforcement campaigns have been shown to be effective tools in raising public awareness of and encouraging compliance with safety belt and impaired-driving laws. NHTSA has fulfilled the requirements for implementing an HVE program by developing advertising, coordinating with states, and evaluating the effectiveness of the campaigns. Although state officials we spoke with reported that NHTSA's coordination efforts

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<sup>27</sup>States may use Alcohol-impaired Driving Countermeasures Incentive Grant funds to implement an outreach program to educate prosecutors and judges.

<sup>28</sup>These courses are offered by the National Association of Prosecutor Coordinators and the American Prosecutors Training Institute.

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helped them implement HVE campaigns, they also cited several challenges to conducting campaigns and achieving desired results—resistant populations, insufficient staffing, and inconsistent DUI prosecution—that may be limiting the effectiveness of the campaigns. NHTSA is implementing some initiatives—such as the “Buckle Up In Your Truck” campaign to promote safety belt use among rural pickup truck drivers—to help states address these challenges. However, the challenges of insufficient staffing and inconsistent DUI prosecution are primarily state issues and largely out of NHTSA’s control to influence under the current program. While NHTSA’s performance measures indicate that the campaign messages are reaching the primary target audiences and positively affecting behaviors, NHTSA’s assessments of campaign effectiveness do not provide a complete picture of the impact of HVE campaigns. For example, NHTSA lacks the data to consistently measure a key component of the campaigns—the level of state and local activities—and evaluate the use of federal funds used by states for campaign activities. Furthermore, the performance measures reported in the assessments are limited and do not provide information on the impact of the campaigns in areas such as nighttime safety belt use and advertisements for all target audiences. The assessments would be improved by more complete and consistent information on federally funded state campaign activities and a more comprehensive set of performance measures.

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## Recommendations for Executive Action

To improve NHTSA’s evaluations of the HVE campaigns, we recommend that the Secretary of Transportation direct NHTSA to take the following two actions:

- Develop a minimum core set of reporting requirements for states to consistently report HVE law enforcement and media activities funded with federal dollars. These requirements should be designed to achieve a more consistent measure of state activity and accountability for federal funding without presenting an undue burden to states.
- Develop and include additional performance measures—such as a measure for nighttime safety belt use and additional measures of media effectiveness—in the agency’s annual evaluations of the effectiveness of the two campaigns.

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## Agency Comments

We provided a draft of this report to DOT for its review and comment. DOT officials—including the Senior Associate Administrator of Traffic

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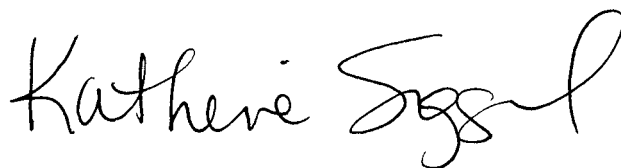
Injury Control—generally agreed with the findings and recommendations of the report.

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We are sending copies of this report to interested congressional committees and the Secretary of Transportation. We will also make copies available to others upon request. In addition, the report will be available at no cost on GAO's Web site at [www.gao.gov](http://www.gao.gov).

If you or your staffs have any questions about this report, please contact me at (202) 512-2834 or [siggerudk@gao.gov](mailto:siggerudk@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix III.

Sincerely yours,

A handwritten signature in black ink that reads "Katherine Siggerud". The signature is written in a cursive style with a large, looped "S" at the end.

Katherine A. Siggerud  
Director, Physical Infrastructure Issues

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# Appendix I: Objectives, Scope, and Methodology

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To determine the extent that the National Highway Traffic Safety Administration (NHTSA) has implemented the high-visibility enforcement program, and evaluated results, we reviewed information and interviewed officials from NHTSA and representatives of nongovernmental organizations, including the American Association of State Highway and Transportation Officials, Governors Highway Safety Association, International Association of Chiefs of Police, Mothers Against Drunk Driving, National Safety Council, and the National Sheriffs Association. In addition, we reviewed studies, reports, and laws relevant to the implementation and evaluation of NHTSA's and other high-visibility enforcement programs. We also interviewed state officials to obtain their views on NHTSA's assistance with campaign activities in seven states—Arkansas, Illinois, Iowa, North Carolina, North Dakota, Rhode Island, and Washington. We judgmentally selected the states to include those with laws that may affect how states conduct enforcement campaigns; states with a wide range of traffic safety performance levels, such as safety belt use and number of alcohol-involved fatalities, and states with different sizes of law enforcement agencies and with various degrees of participation in campaigns. In selecting states based on differences in laws that affect campaign enforcement, we included states that adopted primary safety belt laws before or after 1997 and states that have not enacted a primary safety belt law. In selecting states based on levels of traffic safety performance, we included states that, when ranked nationally, fell into the upper, lower, and middle third in safety belt use, unbuckled fatalities, and alcohol-related fatal crash ratio.<sup>1</sup> To select states based on size of state law enforcement agencies, we looked at the average number of sworn officers reported by those agencies. To select states based on participation by law enforcement agencies, we chose states that had varying reported percentages of participation in HVE campaigns, the extent that agencies reported campaign hours worked, and whether law enforcement agencies used checkpoints while conducting the HVE campaigns from 2003 through 2006. In selecting the states, we used a nongeneralizable sampling approach, and, consequently, the results cannot be used to make inferences about all of the states.

We used data contained in NHTSA's Fatality Analysis Reporting System (FARS) database to analyze information on all traffic-related fatalities.

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<sup>1</sup>The alcohol-related fatal crash ratio is the number of alcohol-related vehicle crashes with one or more fatalities divided by the total number of vehicle crashes with one or more fatalities. A crash was considered to be alcohol related if a vehicle operator, pedestrian, or bicyclist involved in the crash had blood alcohol content at or above 0.01.



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Each state provides NHTSA fatality data in a standardized format. To be included in the database, a crash must result in the death of an occupant or nonmotorist within 30 days of the incident. The states obtain this information from such sources as police reports, vehicle registration files, state driver licensing files, death certificates, coroner or medical examiner reports, and hospital records. It should be noted that while fatality data are useful in understanding crashes, other factors in addition to those involved in causing the crash might have contributed to the fatality. This would include whether safety belt or other occupant protection measures were used and functioned properly. Further, in providing information on state fatality rate trends, we identified fatalities per million miles traveled. To do so, we used vehicle miles traveled data maintained by Federal Highway Administration in its Highway Performance Monitoring System (HPMS). HPMS is a national-level highway information system that includes data on the extent, condition, performance, use, and operating characteristics of the nation's highways. HPMS obtains vehicle-miles-traveled data from each state, and states have different methods for collecting certain travel information. There are certain limitations associated with using these data. For example, the quality of the data in the system relies on state data collection techniques. HPMS guidance is flexible, so that each state has its own approach, and some approaches do not require annual revisions. In addition, vehicle-miles-traveled data may not be comparable from state to state. We have previously assessed the reliability of the FARS and HPMS data by reviewing it for obvious errors in accuracy and completeness, reviewing existing information about the data, and interviewing agency officials knowledgeable about the data and determined that the data is sufficiently reliable for the purposes of this report.

To determine the impact of the high-visibility enforcement campaigns and what challenges exist, we interviewed officials from state highway traffic safety offices, state police, and local police in the seven selected states. For each state we visited, we also interviewed officials in the applicable NHTSA regional office and, when available, representatives of state associations of chiefs of police and sheriffs' associations about the impact of the HVE campaigns and challenges they faced. In addition, we reviewed the state highway safety plans and annual reports and other relevant reports for information on HVE campaign activities and challenges. We also provide a summary of high-visibility campaigns in Australia, Canada, and the Netherlands, which can be found in appendix II.

We conducted this performance audit from March 2007 to April 2008 in accordance with generally accepted government auditing standards. Those

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standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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# Appendix II: HVE Campaigns in Australia, Canada, and the Netherlands

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Similar to the United States, Australia, Canada, and the Netherlands, among other countries, combine high-visibility enforcement (HVE) with advertising to improve safety belt use and reduce impaired driving.<sup>1</sup> In fact, Canada was the first country in North America to demonstrate that highly publicized occupant protection enforcement increases compliance with occupant protection laws. The United States based its model for high-visibility campaigns on Canada's occupant protection enforcement program.

A key difference among the U.S., Australia, and Netherlands HVE programs is the use of random breath testing (RBT), which allows police to pull over any driver at random to undergo a breath test for alcohol. Officials from Australia and the Netherlands noted that impaired-driving fatalities have been reduced in their countries because law enforcement officials are allowed to stop drivers at random to test the driver's breath for alcohol. Though other countries report that the RBT technique is effective in combating impaired driving, it may be difficult to replicate in the United States due to privacy concerns. In the United States, drivers must be stopped for suspicious behavior or another offense before being given a breathalyzer. However, states may be able to use equipment, such as a passive alcohol sensor embedded in a flashlight, to overcome potential privacy concerns.

- Canada bases its current high-visibility enforcement campaigns on its national road safety plan, Road Safety Vision 2010, which commenced in 2002. The plan has ambitious goals—a 30 percent reduction in fatalities and injuries based on average fatalities and serious injuries from 1996 to 2001—and runs through 2010. Canadian HVE campaigns concentrate on speed, impaired driving, and safety belts among other things. Despite previous success with safety belt campaigns in the 1980s to 1990s, Canada's safety belt use rates have remained stagnant at approximately 90 percent to 93 percent during the last 10 years. Canada is currently trying to develop strategies to target the “last 10 percent” since approximately 40 percent of their fatalities involve unbuckled persons, many of whom are thrown from the vehicle. To target impaired drivers, Canada conducts a Reduce Impaired Driving Everywhere program, where police stop drivers to check for signs of alcohol consumption. If there is suspicion of drinking, a roadside screening test can be administered; if the driver fails this test, an evidentiary breath test is given, usually at the police station.

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<sup>1</sup>GAO selected these three countries based on expert recommendation and the countries' performance in reducing road fatalities.

Canadian law also stipulates that anyone with a blood alcohol content above 0.08 is criminally liable. Finally, Canada has a Web site to allow officers to share best practices in high-visibility campaigns.

- Australia has primarily relied on RBT as an effective strategy for the country's high-visibility law enforcement campaigns against impaired driving. Each Australian state enacted impaired-driving laws between 1976 and 1992, setting a blood alcohol content of 0.05 as the legal limit for drunken driving offenses. Each state has also enacted RBT laws, beginning with the state of Victoria in 1976. It was not until researchers determined in the early 1980s that one in two drivers killed in traffic accidents had a blood alcohol content over the legal limit, however, that Australia began widespread implementation of RBTs. For example, the state of Victoria went from conducting nearly 200,000 RBTs per year in the mid-1980s to approximately 1.2 million RBTs per year in the early 1990s. Since there were approximately 3 million licensed drivers in the state of Victoria at that time, this means more than one in three drivers were subject to an RBT. The proportion of drivers killed in Australia traffic accidents that had a blood alcohol content over the legal limit fell to one in five in 1992. Furthermore, the number of intoxicated drivers in the state of Victoria who died in accidents decreased from 350 per year in the 1980s to approximately 100 in 2006. In addition, Australia implemented a campaign to educate the public about why police officers were conducting RBTs and ensured the RBTs were conducted efficiently to ensure minimal delays to drivers. Australia emphasized the RBTs have been successful because of the general deterrence theory—that is, Australian drivers are afraid of being pulled over and tested, and, thus, they are less likely to drink and drive. Finally, anyone who refuses a breathalyzer test is presumed to have a blood alcohol content above the legal limit.
- The Netherlands' HVE campaigns focus on a variety of areas set by the Minister of Transport and employs a number of different strategies. The five campaigns for 2007 emphasized helmet use for motorcycles and mopeds, safety belt use, red light compliance, reducing impaired driving, and lowering driving speeds. Each campaign lasts several weeks and involves significant police activity using the country's 750 traffic safety officers. Approximately 1.5 million RBTs are done per year in the Netherlands, and drivers are afraid of being pulled over and tested, based on the general deterrence theory. The Netherlands also has an aggressive speed enforcement program to ticket 100 percent of offenders on the country's motorways, through an intricate speed camera system. For example, a motorway will have a camera on mile 1 and another camera on mile 10. A citation is then issued when drivers exceed the speed limit between those two locations; the fine depends on how far over the limit

the driver was traveling. In the past, the Netherlands has run a campaign featuring a cartoon character known as “Goochem the Armadillo” to encourage children ages 4 to 12 to wear safety belts. The campaign was intended to emphasize knowledge of safety belt laws, increase use of safety belts, and encourage positive attitudes about safety belts. The campaign was successful in raising safety belt use rates by back seat passengers. Safety belt use rates by back seat passengers increased from 40 percent in urban areas and 43 percent in rural areas in 1998 to 73 percent for both in 2006. Further, although the campaign was aimed at children, a survey demonstrated that the campaign reached approximately 90 percent of adults, as well. In addition to the high-visibility campaigns, the Netherlands also promotes sustained activity targeting each of the campaign areas throughout the year.

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# Appendix III: GAO Contact and Staff Acknowledgments

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## GAO Contact

Katherine A. Siggerud, (202) 512-2834 or [siggerudk@gao.gov](mailto:siggerudk@gao.gov)

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## Staff Acknowledgments

In addition to the contact named above, other key contributors to this report were Sara Vermillion (Assistant Director), Elizabeth Curda, Sandra DePaulis, Brad Dubbs, Colin Fallon, Bert Japikse, Tom James, Leslie Locke, Terry Richardson, Beverly Ross, and Aron Szapiro.

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