Table of Contents

B.1.   Describe the potential respondent universe and any sampling or other respondent selection to be used.

B.2.   Describe the procedures for the collection of information.

B.3.   Describe methods to maximize response rates.

B.4.   Describe any tests of procedure or methods to be undertaken.

B.5   Provide the names and telephone numbers of individuals consulted on statistical aspects of the design.

B. Collections of Information Employing Statistical Methods

The proposed study will employ statistical methods to analyze the information collected from respondents. The following sections describe the procedures for respondent sampling and data tabulation.

B.1.   Describe the potential respondent universe and any sampling or other respondent selection to be used.

The potential universe for these surveys includes all non-institutionalized adults in telephone households within the United States. For this purpose, adults are defined as persons aged 18 or older. This information collection will encompass multiple (a) National samples (b) State samples and (c) regional/community samples. The sample will be distributed according to Table 1, followed by a more detailed description of each sample.

<table>
<tr><td colspan="5" align="center">TABLE 1.</td></tr>
<tr><td colspan="5" align="center">Participants</td></tr>
<tr><td></td><td>National Interviews</td><td>State Surveys</td><td>Community/Regional Surveys</td><td>Total Participants</td></tr>
<tr><td>Annual</td><td>7,200</td><td>10,000</td><td>6,800</td><td>24,000</td></tr>
<tr><td>3 Year Total</td><td>21,600</td><td>30,000</td><td>20,400</td><td>72,000</td></tr>
<tr><td colspan="5" align="center">Interview Hours</td></tr>
<tr><td></td><td>National Interviews</td><td>State Surveys</td><td>Community/Regional Surveys</td><td>Total Hours</td></tr>
<tr><td>Annual</td><td>1,200</td><td>1,666.67</td><td>1,133.33</td><td>4,000</td></tr>
<tr><td>3 Year Total</td><td>3,600</td><td>5,000.00</td><td>3,400.00</td><td>12,000</td></tr>
</table>

National Surveys

National samples will be required for both safety belt and impaired driving mobilization interventions. One national safety belt mobilization and two national impaired driving mobilizations will be evaluated each year (additional national mobilizations or interim mobilization waves are possible). For each mobilization, a pre-test (baseline) national sample and a post-test national sample of 1200 respondents will be surveyed. Thus, the national sample for the proposed information collection would be:

> (1200 respondents pre-mobilization + 1200 respondents post-mobilization) X
> 3 mobilizations (2 Alcohol Mobilizations + 1 safety Belt mobilization) X 3 Years
> = 21,600 respondents

For each national survey wave, 1200 respondents will be drawn from a national probability sample of households selected through a random digit dialing (RDD)

sampling process. This number is sufficiently large to permit pre/post comparisons within reasonable bounds of sampling error as well as permit sub-sample analyses of some major demographic characteristics (e.g., age and sex). Screening criteria for age eligibility would be age 18 and older. Additional criteria will be used for the alcohol mobilization to restrict sampling to drivers, age 18 years old and older, who have consumed alcohol within the last year. The sample will be stratified according to four Census Regions: Northeast, Midwest, South, and West (see Table 2 for expected sample distribution and sampling error). Residents from all 50 States and the District of Columbia would be eligible for the sample. In total, 21,600 respondents will be used for the National Surveys over a three year period.

Table 2
2006 Projected Regional Census Population Age 18+
By U.S. Census Region, Sample Size and Sample Error

Regions	States	Population	Proportion	National Sample	*Sampling Error
US	50 States and DC	224,365,151	100.00%	1200	2.8%
Northeast	CT, MA, ME. NH, NJ, NY, PA, RI, VT	42,181,438	18.80%	225	6.5%
Midwest	IL, IN, IA, KS, MI, MN, MO, NE, ND, OH, SD, WI	49,887,732	22.24%	267	6.0%
South	AL, AR, DE, DC, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV	81,267,256	36.22%	435	4.7%
West	AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA, WY	51,028,725	22.74%	273	5.9%

* Computed from the equation $1.96 \times \sqrt{p(q)/(n-1)}$ where 1.96 is the z score at the 95% confidence level, p is the proportion of the sample displaying a particular characteristic (using the maximum value of the simple random sampling variance, or 50%), q equals (1-p), and n is the sample size.

Source: File 2. Interim State Projections of Population for Five-Year Age Groups and Selected Age Groups by Sex: July, 1 2004 to 2030. U.S. Census Bureau, Population Division, Interim State Population Projections, 2005.

State Surveys
State mobilization surveys will be conducted at the same time as the national mobilization survey waves. State selections are based on certain State characteristics of interest or a State's manner of mobilization implementation. For each mobilization, a pre-test (baseline) State sample and a post-test State sample of 500 respondents will be surveyed.   State samples are significantly smaller than the national samples, but will be

sufficiently large so that sampling error is no greater than ± 5 percentage points on questions administered to all sampled respondents. Typically, the State samples will not be stratified by geographic region. However, such stratification may occur if a reason emerges for comparing responses from different regions within a State due to differential implementation of the mobilization or a desire to compare the responses of regions that differ substantially on some demographic factor. Age eligibility will be 18 and older. Additional criteria will be used for the alcohol mobilization to restrict sampling to drivers, age 18 years old and older, who have consumed alcohol within the last year. Respondents will be drawn from a State probability sample of households selected through a random digit dialing (RDD) sampling process

Under this category, NHTSA is planning surveys in support of impaired driving programs within States with the highest rate of alcohol-related fatalities. NHTSA will work with 10 of these strategic evaluation States over the next 3 year. This will include pre-mobilization and post-mobilization surveys to assess attitudes and awareness of the impaired driving mobilizations. A total of 30,000 respondents will be used for the State Surveys over a three year period. The following scheme provides the best estimate of sampling needs:

> (500 respondents pre-mobilization + 500 respondents post-mobilization) X (5 States alcohol surveys + 5 States safety Belt survey) X 3 Years = 30,000 respondents

A total of 30,000 respondents will be used for the State surveys over a three year period.

Demonstration Surveys
For each Demonstration project, a pre-test (baseline) sample and a post-test sample of 400 respondents will be surveyed, except for the demo project "Evaluation of Reaching the High Risk Driver through Nighttime Safety Belt Enforcement", which will have a pre-test and post-test sample of 500 respondents will be surveyed. Sampling sizes are sufficiently large so that sampling error is no greater than + 5 percentage points on questions administered to all respondents. Respondents will be selected from residential telephone exchanges covering the geographic area receiving the demonstration project intervention, using systematic procedures for sampling from exchanges and a random digit dialing (RDD) process for selecting numbers to call from sampled blocks of phone numbers. Age eligibility will depend on the nature of the intervention being evaluated. If the intervention is being directed at a youth population (i.e., under age 18), then the survey contractor shall first be required to undergo formal review and approval of methods by an Institutional Review Board certified by the Department of Health and Human Services.

Under this category, NHTSA is planning surveys for the following projects (described in detail in Section A.12.):
- Nighttime Belt Enforcement Demo   (10 waves)
- Combined Alcohol and Belt Nighttime Enforcement   (8 waves)
- Ohio DWI Media Project   (12 waves)

- Click It or Ticket: The Next Generation   (16 waves)
- Evaluation of Reaching the High Risk Driver Through Nighttime Safety Belt Enforcement   (4 waves)

  (400 Respondents pre-mobilization + 400 respondents post-mobilization) X 25 waves = 20,000 respondents

A total of 20,400 respondents will be used for the demonstration project surveys over a three-year period.

Total Sampling Needs

Overall, the total sample needs are 24,000 respondents annually, which would be 72,000 respondents over a three-year period. Since all the surveys are estimated to be 10 minutes in length, the estimated annual time is 4,000 hours interviewing, which would be or 12,000 hours over a three-year period.

B.2.   Describe the procedures for the collection of information.

The proposed surveys will be administered using a quasi-experimental pre-/post-test design to examine the changes that occur as a result of specific safety belt and impaired driving interventions. The National and State mobilization surveys will be conducted on a schedule corresponding with the fixed annual dates for the national mobilizations. The demonstration project surveys will be conducted on a more variable schedule that will depend on the timing and sequencing of the components of each demonstration project.

National Mobilization Surveys

At the national level, data collected from random samples of 1200 people before and after the mobilizations will be compared to examine changes in awareness, attitudes and self-reported behavior.

The proposed national survey samples are based on a modified stratified random digit dialing method, using a geographically stratified RDD sample rather than a single-stage/RDD sample. There are several important advantages to using a geographically stratified base for the RDD sample: (1) it draws the sample proportionate to the geographic distribution of the target population rather than the geographic distribution of telephone households, which is vital to constructing unbiased population estimates from telephone surveys; (2) it allows greater geographic stratification of the sample to control for known geographic differences in non-response rates; and (3) it facilitates the use of Census estimates of population characteristics to weight the computed sample to correct for other forms of sampling bias

The initial stage of the sample construction process requires the development of a national area probability sample based upon the distribution of the target population for this study, i.e. the non-institutionalized population age 18 and older in the United States. The estimated distribution of the population age 18 and older was calculated on the basis of projected 2006 data from the U.S. Census Bureau, (Table 1 shows the distribution of

the population age 18 and older according to the census regions, the proportionate sample size for each region, and the sampling error).

Once the sample has been geographically stratified with sample allocation proportionate to population distribution, a sample of assigned telephone banks will be randomly selected from an enumeration of the Working Residential Hundreds Blocks of the active telephone exchanges within the region. The Working Hundreds Blocks are defined as each block of 100 potential telephone numbers within an exchange that includes 3 or more residential listings. (Exchanges with one or two listings are excluded because in most cases such listings represent errors in the published listings.).

In the third stage sample, a two-digit number is randomly generated by computer for each Working Residential Hundreds Block selected in the second stage sample. This third stage sampling technique is known as random digit dialing (RDD). Every telephone number within the Hundreds Block has an equal probability of selection, regardless of whether it is listed or unlisted. The use of RDD sampling eliminates the otherwise serious problem of unlisted telephone numbers.

The sample construction described above yields a population-based, random digit dialing sample of telephone numbers. The systematic dialing of those numbers to obtain a residential contact should yield a random sample of telephone households. During the fourth stage of sampling, a random selection procedure will be used to select one designated respondent for each household sampled. The "most recent/next birthday method" will be used for within household selection among multiple eligible respondents. Salmon and Nichols (1983[1]) proposed the birthday selection method as a less obtrusive method of selection than the traditional grid selections of Kish, et al. In theory, birthday selection methods represent true random selection (Lavrakas, 1987[2]). Empirical studies indicate that the birthday method produces shorter interviews with higher response rates than grid selection (Tarnai, Rosa and Scott, 1987[3]).

Upon contacting the household, interviewers will briefly state the purpose of their call (including noting the confidentiality of the interview), and then request to speak to the person in the household within the eligible age range who has had the most recent birthday, or will have the next birthday. The CATI system will randomly rotate whether the interviewer asks for the most recent or next birthday. If the person who answered the phone is the selected respondent, then the interviewer will proceed with the interview. If the selected respondent is someone else who then comes to the phone, then the interviewer will again introduce the survey (with confidentiality statement) and proceed with the interview. If the selected respondent is not available, then the interviewer will arrange a callback.

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[1] Salmon, C. and Nichols, J. *The Next-Birthday Method of Respondent Selection*. Public Opinion Quarterly, 1983, Vol. 47, pp. 270-276.

[2] Lavrakas, P. *Telephone Survey Methods: Sampling, Selection and Supervision*. Beverly Hills: Sage Publications, 1987.

[3] Tarnai, J., Rosa, E. and Scott, L. *An Empirical Comparison of the Kish and the Most Recent Birthday Method for Selecting a Random Household Respondent in Telephone Surveys*. Presented at the Annual Meeting of the American Association for Public Opinion Research. Hershey, PA, 1987.

State Mobilization Surveys

The major differences between national and State sample selection procedures will be sample size (smaller for the State samples) and the absence in most cases of Stage 1 distribution of sample by geographic stratification. Otherwise, State sampling procedures will mirror the same procedures described above for selecting the national samples (i.e., Stages 2-4). The national and State samples will be selected independently. As indicated in Section B1, NHTSA may determine that some level of stratification is desirable for analytic purposes. Therefore, sample generation for one or more States could include some form of Stage 1 distribution of sample by geographic stratification.

Demonstration Project Samples

The size of the demonstration project samples will vary depending on whether the interventions require sub-sample comparisons and whether interval waves will be needed. The demonstration projects will typically be directed towards a community, which may be a single county or a cluster of several counties. The residential telephone exchanges covering the geographic area undergoing the intervention will be determined, and a systematic procedure for randomly selecting telephone numbers to call will be implemented. Demonstration project surveys may require more screening criteria than age as interventions may be directed at very specific subgroups within the community. In-house selection methods will be conducted that obtain scientifically valid random samples.

Data Collection Procedures across Samples

Data collection will be conducted by trained interviewers working in telephone research centers that utilize a computer-assisted telephone interviewing (CATI) network. The CATI network will have capability for silently monitoring the performance of interviewers. Monitoring will be conducted by supervisory staff during all interview shifts to determine the quality of interviewer's performance in terms of:

1. Initial contact and recruitment procedures;

2. Reading the questions, fully and completely as written;

3. Reading response categories, fully and completely, (or not reading them) according to the study specifications;

4. Whether or not open-ended questions are properly probed;

5. Whether or not the interviewer enters the correct code, number, or verbatim response to the question;

6. Whether or not ambiguous or confused responses are clarified

7. How well questions from the respondent are handled without alienating the respondent or biasing his/her response;

8. Avoiding bias by either comments or vocal inflection;

9. Ability to persuade wavering, disinterested or hostile respondents to continue the interview; and

10. General professional conduct throughout the interview.

Initial telephone contact will be attempted during the hours of the day and days of the week that have the greatest probability of respondent contact. This means that the primary interviewing period will be conducted between 5:30 p.m. and 10:00 p.m. on weekdays; between 9:00 a.m. and 10:00 p.m. on Saturdays; and between 10:00 a.m. and 10:00 p.m. on Sundays. If the interview cannot be conducted at the time of initial contact, the interviewer will reschedule the interview at a time convenient to the respondent. Although interviews will be conducted on evenings and weekends whenever possible, daytime interviews will be scheduled whenever necessary.

Statistical Analysis
Sample selection for all surveys will follow as closely as possible simple random sampling, with some stratification occurring for the national sample. NHTSA will weight the national and State sample by the likelihood of selection (sex, number of telephone lines and number of eligible adults in the household) and then by age and sex to most recent Census estimates for the specified geographic area. However, NHTSA will not weight the national and State samples for the Alcohol mobilizations because the sample is restricted to drivers age 18 and older who have consumed alcohol within the last year, and there are no census parameters on drivers that drink to which we could weight by age and sex.

Chi square statistics will be applied to final data to compare results from survey waves. Additional statistics may be calculated if NHTSA sees a need for more refined analyses and special statistical software will be used if any data are collected using a complex sample design.

B.3.   Describe methods to maximize response rates.

One of the steps that NHTSA has considered in order to try to increase response rates is extending the two-week field period. However, a two-week field period is used for these mobilizations because of the constraints involved in coordinating data collection with several States. Specifically, in order to avoid contamination from State highway safety activities, NHTSA confines data collection to a two-week period prior to the mobilization and a two-week period after the mobilization.
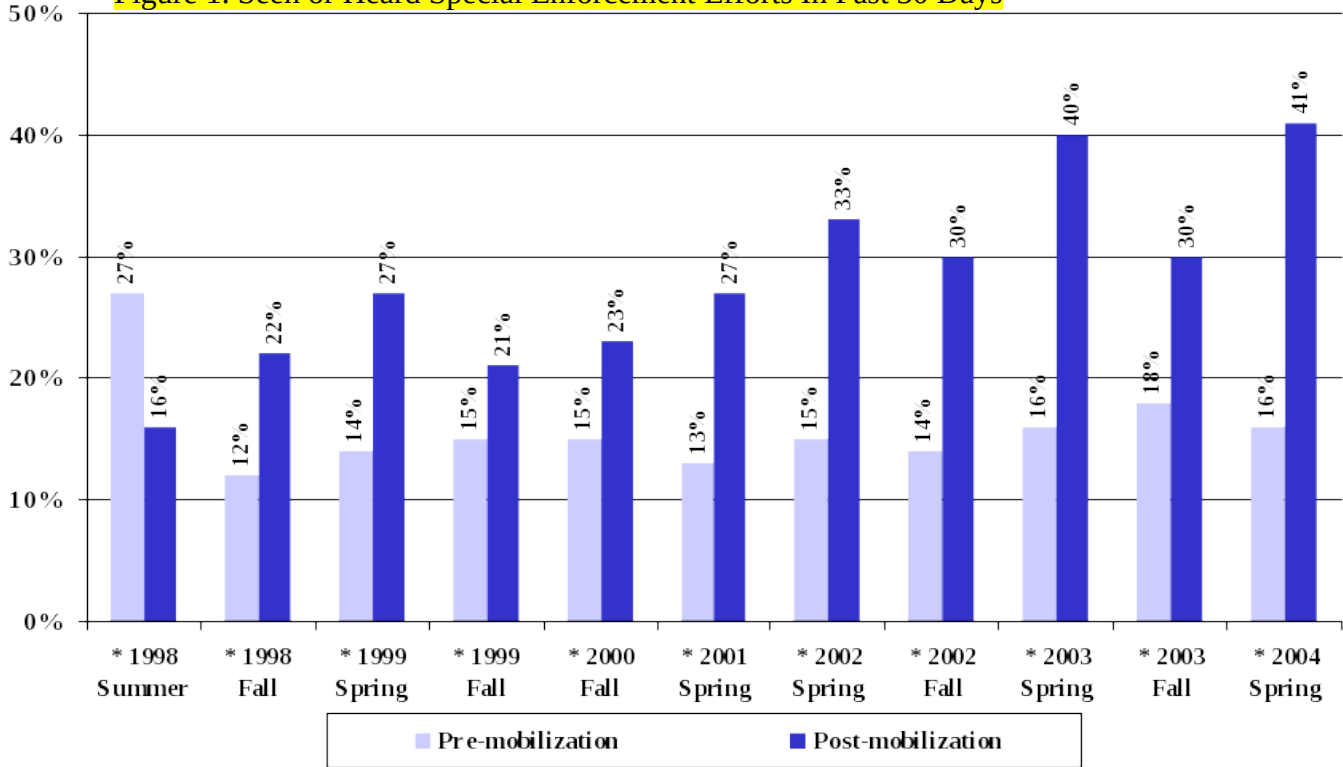
The projects will include unlimited call attempts and unlimited callbacks during the field periods. However, the limited field periods will require that the surveys place particular emphasis on contact scripts and the training/monitoring of interviewers. The initial contact script has been carefully developed and refined to be persuasive and appealing to

the respondents. The interviewing will be conducted only by thoroughly trained and experienced interviewers who are highly motivated and carefully monitored. All interviewers will have had training on how to overcome initial reluctance, disinterest or hostility during the contact phase of the interview. There will be maintenance and regular review of field outcome data in the sample reporting file, derived from both the sample control and CATI files, so that patterns and problems in both response rate and production rates can be detected and analyzed. Periodic meetings will be held with the interviewing and field supervisory staff and the study management staff to discuss problems with contact and interviewing procedures and to share methods of successful persuasion and conversion. Within the field period of the surveys, unlimited call attempts and unlimited call backs will be used to maximize response rates.

NHTSA has observed strong consistency between the results of its telephone surveys and both known activity in the field as well as concurrent research utilizing self-report or other data collection techniques. The "Click It or Ticket" (formerly "Buckle Up America") surveys have been conducted by NHTSA since 1998. Pre/post survey waves have shown questions in the data collection instrument to be sensitive to the national enforcement mobilizations, as illustrated in Figures 1 and 2. Moreover, the Air Bag and Seat Belt Safety Campaign (AB&SBSC) also conducted telephone surveys during the early years of the safety belt mobilizations. Their results were consistent with the NHTSA results for similar questions (e.g., perceived risk of being ticketed.

The core self-report behavioral and demographic questions on the Click It or Ticket (CIOT) Surveys are also on NHTSA's Motor Vehicle Occupant Safety Survey (MVOSS), which has used the same basic methodology as the CIOT surveys except for the addition of over-sampling younger persons. The MVOSS formerly was administered approximately the same time of year as NHTSA's national probability observation survey of safety belt use (the schedule of the observation survey was drastically changed a few years ago). As shown in Table 1, there has been a strong correspondence between the telephone and observational data.   The self-report surveys, through the most recent versions, have continually shown the same patterns detected in the national observation surveys (lower belt usage among males, younger persons, pickup truck drivers, etc.).

Figure 1. Seen or Heard Special Enforcement Efforts In Past 30 Days

	1998 Summer	1998 Fall	1999 Spring	1999 Fall	2000 Fall	2001 Spring	2002 Spring	2002 Fall	2003 Spring	2003 Fall	2004 Spring
Pre-mobilization	27%	12%	14%	15%	15%	13%	15%	14%	16%	18%	16%
Post-mobilization	16%	22%	27%	21%	23%	27%	33%	30%	40%	30%	41%

Q14. In the past 30 days, have you seen or heard of any special effort by police to ticket drivers in your community for seat belt violations?
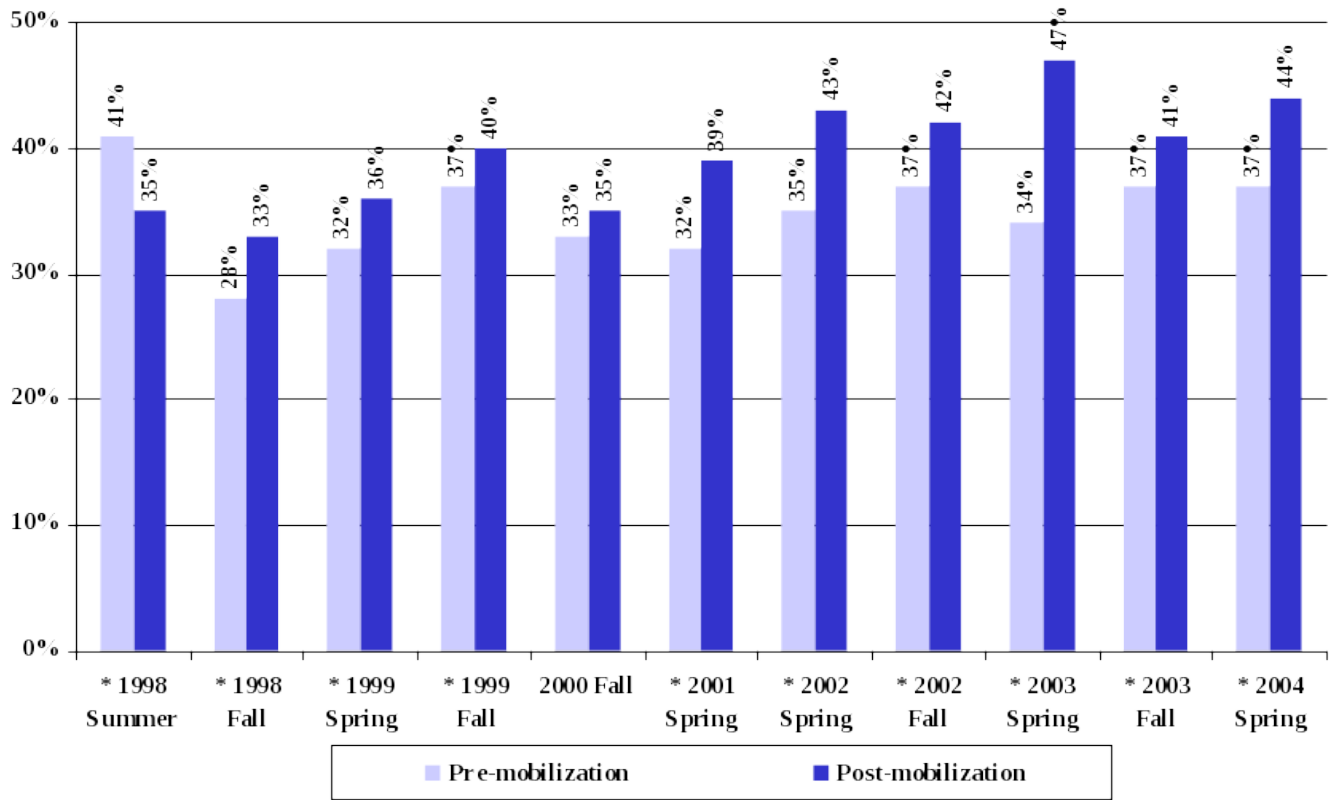Base: Total adults (Unweighted N's range from 1,000 to 1,212)
*Differences between Pre and Post measurement are significant at the .05 level

The sequencing of the Summer 1998 surveys did not follow a pre/post design. Rather, the first survey wave occurred during the period of the intervention, whereas the second survey wave occurred a couple of months after the intervention period.

The larger increases in the more recent years reflect the introduction of paid media.

Q13f. Police in my community are writing more seat belt tickets now than they were a few months ago.
Base: Total adults (Unweighted N's range from 1,000 to 1,212)
*Differences between Pre and Post measurement are significant at the .05 level

The larger increases in the more recent years reflect the introduction of paid media.

TABLE 1 Revised Reported Seat Belt Use Compared To Observed Use By Drivers			
	1998 MVOSS (Telephone Survey) "All Of The Time"	Revised 1998 MVOSS (Telephone Survey) "All Of The Time" (Excludes past day or week non-users)	1998 NOPUS (Observation Survey) Drivers
Total Drivers	79.2%	71.4%	69.6%
Males	74.1%	65.4%	64.3%
Females	84.2%	77.2%	77.7%
Blacks	75.2%	69.5%	67.5%
Whites	78.9%	70.9%	70.3%

11

Age 16-24	76.0%	63.9%	58.4%
Age 25-69	79.1%	72.2%	70.5%
Age 70+	85.0%	76.7%	76.4%
Passenger Cars	82.3%	74.3%	73.8%
Pickup Trucks	64.7%	57.6%	52.8%
Urban	79.7%	71.8%	74.5%
Suburban	79.7%	72.2%	67.6%
Rural	77.4%	68.9%	67.0%

Source: NHTSA Motor Vehicle Occupant Safety Survey: Volume 2 Seat Belt Report, March, 2000

B.4. Describe any tests of procedures or methods to be undertaken.

The proposed mobilization surveys are a continuation of safety belt and impaired driving mobilization surveys conducted in previous years. As such, they will utilize questionnaires nearly identical to those utilized previously, and follow methods that have been previously implemented and found successful. The demonstration project surveys will be developed by persons involved in the design and implementation of the designated demonstration projects. They will be pre-tested with a small number (10) of respondents.

B.5. Provide the name and telephone number of individuals consulted on statistical aspects of the design

The following individuals consulted on statistical aspects of the study design:

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