CORONA INSIGHTS
Bright thinking. Brilliant guidance.

2012 Traffic Safety Behaviors Survey

Minnesota Department of Public Safety, Office of Traffic Safety

 © Corona Insights, 2011

CONTENTS

Introduction **4**

Background and Methodology **5**

Subpopulation Definitions 5

Methodology 6

Summary of Key Findings **9**

Detailed Findings **15**

Table Interpretation 15

Section 1: Seat Belt Behaviors and Enforcement Awareness 18

Section 2: Speeding Behaviors and Enforcement Awareness 36

Section 3: Impaired Driving Behaviors and Enforcement Awareness 48

Section 4: Additional Analyses 72

General Traffic Safety Slogan Awareness *72*

Motorcycle Safety Campaign Awareness *78*

Mobile Phone Behaviors and Enforcement Awareness *81*

Vehicle Choices *91*

Section 5: Overarching Findings 94

Appendix A: Respondent Demographics **97**

Appendix B: Survey Instrument **100**

Appendix C: Detailed Weighting Methodology **108**

Sample & Respondents *108*

Selecting Probability/Compositing Estimator *108*
Weights Beforing Combining Cell and Landline Samples (Pre-Weights For Telephone Service) *108*
Combining Samples/Input Weights *108*
Preliminary Raked Weights *108*
Final Weights *109*
References *109*

INTRODUCTION

In 2012, the Minnesota Department of Public Safety's Office of Traffic Safety retained Corona Insights to conduct a random telephone survey of Minnesotans for the purpose of examining the behaviors of Minnesotans with regard to a variety of traffic safety issues, as well as their awareness of various efforts to promote safer driving in the state. This survey will help to better understand the impacts that these efforts are having, as well as provide a baseline of information against which future iterations of this survey can be compared.

In addition to understanding the attitudes and behaviors of the state's population as a whole, the surveys also sought to understand how various groups of subpopulations differed in their responses. Specifically, the study was designed to examine how responses varied by age, gender, and geographic areas (i.e., urban and rural). In addition, the survey specifically examined findings for a key target of the traffic safety campaigns: young unmarried males (defined as males between the ages of 18 and 34 who are not currently married).

REPORT LAYOUT

This report is divided into a number of major sections, which include the following:

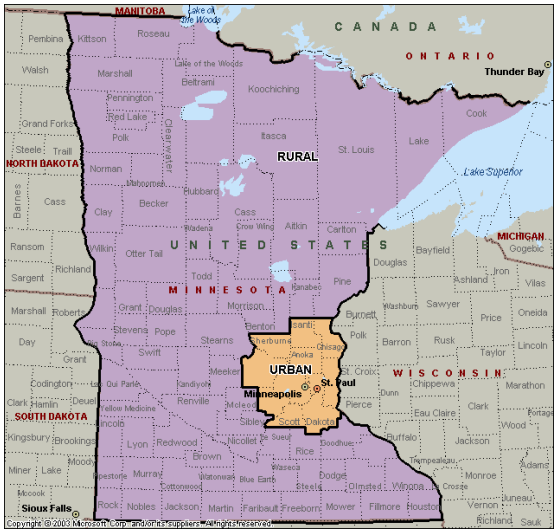
- **Background and Methodology –** This section provides a detailed description of the approach used for this project in terms of goals and methodologies used.
- **Summary of Key Findings –** This section contains a brief overview of the key findings and themes of the research.
- **Detailed Findings –** This section is divided into numerous subsections and focuses on the results of the research in each of the major question topic categories addressed in the survey.
- **Appendix A: Respondent Demographics –** This appendix contains tables of demographic characteristics of survey respondents.
- **Appendix B: Survey Instrument –** This appendix contains the actual survey instrument used for this study.
- **Appendix C: Detailed Weighting Methodology** – This final appendix contains a detailed description of the methodology used to weight responses.

BACKGROUND AND METHODOLOGY

SUBPOPULATION DEFINITIONS

As described previously, the study was designed to examine how responses varied various key subpopulations. The following are the definitions used to categorize respondents into the populations used throughout this report.

- **Young unmarried males** - Young unmarried males were defined as males between ages 18 and 34 who were not currently married. This included primarily those who had never been married, but also included a small percentage of those who were separated, divorced, or living with a partner.
- **Gender** – Respondents were simply categorized as male or female.
- **Age** – Respondents were divided between those who were between ages 18 and 34 and those who were age 35 or older.
- **Geographic area** – Respondents were classified as being in an urban or rural area based on their county. The map below shows the exact geographic areas that are defined as "urban" and "rural" for the purposes of this report.



METHODOLOGY

SURVEY INSTRUMENT DESIGN

The survey instrument for this study was developed through a collaborative process between Corona Insights and the Office of Traffic Safety. The Office of Traffic Safety prepared a rough draft of the questions that were desired to be included in the survey. Based on this draft, Corona made recommendations to improve the survey through minor question edits, revised ordering, and the addition of questions necessary to accommodate the sampling of cell phone users. Based on these recommendations, the team collaboratively decided on final revisions to the survey instrument.

SURVEY IMPLEMENTATION

All surveys were conducted via telephone between July 16th and August 3rd, 2012, using a randomly generated sample of telephone numbers. The telephone sample included both landlines and cell phones (with no fewer than 45 percent of responses gathered from the cell phone sample). The specific number of respondents in each of the various subpopulations examined is shown in the following table:

Audience	Total Completed Surveys
Total Population	**939**
Subpopulations	
Young Unmarried Males (ages 18-34)	219
Urban	500
Rural	439
Males	582
Females	357
Adults 18-34	305
Adults 35+	634

The proportion of cell phone to landline surveys was determined based on NHIS (National Health Interview Survey) data for "cell only" and "cell mostly" households. Dual users (i.e., households who have both cell phones and landlines) were not excluded from the cell sample, nor were they excluded from the landline sample.

WEIGHTING

Telephone surveys, like any other type of survey, do not precisely reflect the entire population when merely summed and totaled. Older residents, for example, are more likely to respond to telephone surveys than are younger residents. In this particular survey young unmarried males and rural residents were over sampled to ensure adequate representation. Because of different response probabilities among single- and dual-users (i.e. individuals who use only cell or landline phones vs. those who use both) within each sample, we also had to weight each sample individually for single- and dual-users using NHIS population data. A compositing estimator (another kind of weight to account for selection probability of single- and dual-users) was then used to combine data from landline and cell samples.

After those initial weighting and combining steps, the study team developed a final unique weighting factor for every single respondent that adjusted that person's representation in the survey data. Weights are based on four variables: region (urban/rural), gender, age (three categories: 18-34, 35-54, 55+), and telephone service by area (rural landline-only, rural dual, rural cell-only, urban landline-only, urban dual, urban cell-only). Telephone usage (i.e., landline-only, landline-mostly, dual use, cell-mostly, cell-only) was not used as a weighting variable because it has not been found to reduce bias compared to telephone service alone, and it results in a larger design effect.

Population estimates for region, gender, and age were obtained from the 2010 U.S. Census, Summary File 1, P12. Population estimates for telephone service in Minnesota were obtained from National Health Statistics Reports, 2011. Cell weighting is not possible because estimates of telephone service by region, gender, and age are not available. Therefore, a process of iterative marginal weighting (i.e., raking or RIM weighting) was used to develop weights for each respondent. Sixteen iterations were performed to allow convergence.

The responses of some respondents who have traits that were underrepresented in the group of survey participants were therefore weighted more heavily than the responses of people whose traits were overrepresented among the survey participants. For this reason, the survey findings represent a much more complex, but also more accurate analysis than would a mere tabulation of the raw data.

See Appendix B for a more detailed description of the methodology used to derive the weights used for this study.

MARGIN OF ERROR

A total of 939 surveys were completed during the survey period, resulting in an overall adjusted margin of error of (plus or minus) 3.8 percent with a 95 percent confidence level. Margins of error take into account the weighting factors.

During the course of the survey, Corona recorded information on several attributes of survey respondents, including their gender and geographical region. It is possible to segment findings among these groups with varying degrees of confidence; this report provides

information for each question for the total population, as well as unmarried males age 18-34, gender breakdowns (male vs. female), geography (urban vs. rural), and age (under 35 vs. 35 and over).

Shown below is a table of the margins of error (with a 95 percent confidence level) for each segment. Margins of error are also corrected for the weighting effect, which will reduce the margin of error in proportion to the size of the weights required.

Margins of Error by Segment

Subpopulation	Survey Respondents	95% MoE
Statewide 18+	939	± 3.8%
Unmarried males age 18 to 34	219	± 6.7%
Males	582	± 4.9%
Females	357	± 5.7%
Rural	439	± 5.4%
Urban	500	± 5.3%
Under 35	305	± 6.8%
35 and over	634	± 4.3%

(Smaller margins of error represent more confidence in the findings.)

SUMMARY OF KEY FINDINGS

Readers are encouraged to review the tables in the following pages for a full overview of how respondents answered the various questions included in the survey. However, the following is a brief discussion of some of the key findings and implications of the survey.

SEAT BELT BEHAVIORS AND ENFORCEMENT AWARENESS

Narrative: Seat belt non-usage is predominantly a "male," "young," and a "young unmarried male" issue. While males overall are more likely than females to have noticed recent seat belt enforcement efforts, this does not necessarily hold true among younger residents, young unmarried males or young males overall. And perceptions of seat belt enforcement lag. In particular, perceptions of likelihood of seat belt enforcement among males, young residents, and young unmarried males are equal to statewide residents' perceptions at best, but more commonly fall short of these. Overall, it is not necessarily surprising that these young and male populations are also less likely to assign a high importance to the Primary seat belt law in Minnesota.

Several key findings related to seat belt behaviors and enforcement awareness are given below.

1. **Males and various male subpopulations, including young unmarried males, are less likely to wear their seat belts "all of the time."** Ninety one (91) percent of all statewide respondents self-report wearing their seat belts "all of the time." This includes 96 percent of females who report this and 87 percent of males, a statistically significant difference.

   Otherwise, just 81 percent of young unmarried males report this seat belt usage behavior. This is the lowest rate among top-level subpopulations examined in this current study. Other male subpopulations across the spectrum including urban males, rural males, and males across all ages (i.e. both under 35 and 35 and over) lag their female counterparts in seat belt usage by statistically significant margins.

   Differences in usage observed in rural versus urban regions, with lower usage in rural areas, is also driven by males, including high proportions of pickup drivers, who are also much more likely to be males. *Source: Exhibits 1 and 24*

2. **While males are more likely than females, overall, to be aware of recent seat belt enforcement efforts, some key male subpopulations are less likely to be aware.** Males as a group are statistically more likely than females (57 percent versus 45 percent) to be aware of recent seat belt enforcement efforts. However, key male subpopulations such as those under 35 and

young unmarried males across both urban and rural areas are only slightly more likely, if at all, to be more aware versus statewide respondents or their comparable groups (i.e. females or "all other"). *Source: Exhibit 2*

3. **Key male subpopulations are less likely to perceive they will experience seat belt enforcement.** Males overall are only slightly less likely than females (i.e. 33 percent versus 36 percent "very likely") to perceive a high chance of seat belt enforcement when not wearing a seat belt. However, among all male subpopulations examined, with the exception of one, males are statistically less likely versus females or "all others" to believe they will get a ticket if they do not wear their seatbelt. This includes both young male and young unmarried male subpopulations across both urban and rural areas. *Source: Exhibit 4*

4. **Males are less likely to assign importance to the Primary seat belt law.** While 58 percent of respondents statewide consider the Primary law as "very important," 47 percent of males assign this same importance level. Contributing to this lower rate is that only 38 percent of young unmarried males have this opinion, as well as 41 percent of males under 35 years old. *Source: Exhibit 5*

SPEEDING BEHAVIORS AND ENFORCEMENT AWARENESS

Narrative: Similar to seat belt usage, speeding is a behavior that is more common among males, young residents, and young unmarried male subpopulations. Among these subpopulations, males are more likely to report noticing recent speed enforcement efforts, and this appears to be driven mostly by older males and urban males. Otherwise, awareness of these efforts among key subpopulations such as young males and young unmarried males is similar to that among statewide respondents. Even with some higher level of awareness of speed enforcement among males as a group, they are still likely to perceive that they can drive somewhat faster than the speed limit versus females, again, driven largely by older males. Young males and young unmarried males are otherwise similar to the general population in terms of perceptions of enforcement.

Several key findings related to speeding while driving are given below.

5. **Young residents and young unmarried males are more likely to speed.** When driving in a 65 mile per hour zone, approximately one-third of young drivers under 35 years of age and approximately one-third young unmarried males indicate that they speed half or most of the time. This compares with a proportion of just 22 percent among the Minnesota statewide population. The higher proportions of both young drivers under 35 and young unmarried males who speed appears to be driven largely by urban drivers who speed. *Source: Exhibit 6*

6. **Males are more aware of speeding enforcement efforts, primarily due to urban males and older age males.** Males are statistically more likely than females (58 percent versus 48 percent) to have noticed speeding enforcement efforts in the past 30 days. Urban males and males 35 and older are male subpopulations driving this higher awareness among males overall, but it is important to note that awareness among key male subpopulations such as young males and young unmarried males are in line with statewide respondent awareness overall. This is also the case with young respondents (under 35) as well. *Source: Exhibit 7*

7. **Perceptions of less likely police enforcement for speeding exist among males, urban and older respondents.** Males, overall, are statistically less likely than females to indicate they are "very likely" to get a ticket for driving over the speed limit. Urban area respondents and older respondents (35 and over) also have similar perceptions to males overall. And these demographics are interrelated. For example, a primary subpopulation of males perceiving less police enforcement for speeding includes males 35 and older. (It is also interesting to note that young males and young unmarried males have similar perceptions to statewide respondents overall.) In urban areas, males and residents over 35 contribute to lower perceived likelihood of enforcement.

   In a separate speeding-related enforcement perception question, males are more likely to believe they can drive at slightly higher speeds than females before being stopped by police. The particular subpopulation, males 35 and over, is a primary driver. *Source: Exhibits 8 and 9*

IMPAIRED DRIVING BEHAVIORS AND ENFORCEMENT AWARENESS

Narrative: The most obvious difference in drinking and driving behaviors among subpopulations is between males and females. Males and several male subpopulations (not including young unmarried males) are statistically more likely to indicate driving a vehicle after drinking alcoholic beverages than their female counterparts. Males, however, are also statistically more likely to be aware of enforcement efforts than females, particularly due to urban and older age males' awareness. In terms of perceptions of being arrested for drinking and driving, males are similar to the general population for the most part, albeit with the exception of a small but statistically significant percentage that perceives they are "not likely" to be arrested after drinking and driving. Again, urban and older males are the subpopulations perceiving they are "not likely" to be arrested.

Otherwise, perception of likely enforcement appears more strongly related to younger age in general. Younger respondents (under 35) across both urban and rural areas are statistically more likely to indicate being "very likely" to be arrested for drinking and driving. Younger respondents are also more likely to have personally driven through or past an area of increased enforcement for driving under the influence of alcohol.

Several key findings related to impaired driving are given below.

8. **The most obvious difference in drinking and driving behavior is between males and females.** Males are statistically more likely than females to indicate driving a vehicle within two hours after drinking alcohol, as well as at higher frequencies in the past 30 days. Statistically significant differences exist across most male subpopulations when examined and compared with their female counterparts, including across geographic location (i.e. urban or rural) and across age groups (i.e. under 35 and 35 and over). It is interesting to note young unmarried males are not statistically different from others. *Source: Exhibit 11*

9. **Young subpopulations are more likely to perceive a likelihood of drinking and driving enforcement.** Respondents under 35 are statistically more likely to believe someone who drives after drinking will be arrested. This is also the perception among young unmarried males. Females are statistically more likely than males to perceive this level of enforcement also. (In a separate question about enforcement likelihood when the amount of alcohol in your body is more than the legal limit, females and all subpopulations of females are statistically more likely than their male counterparts to believe they would be "very likely" to be stopped by police.)

   Otherwise, urban males and males 35 and over are statistically more likely than their female counterparts to believe enforcement for someone who drives after drinking is "not likely." *Source: Exhibit 12*

10. **Males and urban respondents are more aware of impaired driving enforcement efforts.** While 66 percent of statewide respondents overall have recently noticed impaired enforcement efforts, 70 percent of urban respondents and 72 percent of males indicate noticing these. Urban males, and males 35 and over are the primary subpopulations that appear to drive this increased awareness.

    In a separate question about personal experience driving through an area of increased police enforcement in the past 30 days, urban respondents are more likely to indicate this, along with younger (under 35) drivers. *Source: Exhibits 15 and 16*

MESSAGING AND COMMUNICATIONS

Narrative: Familiar slogans including Click It or Ticket and Friends Don't Let Friends Drive Drunk are most likely recalled. The seatbelt-related Click It or Ticket slogan is likely recalled by young and young urban respondents, while the latter impaired driving-related slogan is more likely recalled among rural audiences. This is true with a couple other impaired driving slogans tested, and possibly shows an opportunity for more impaired driving communications in urban areas.

Speaking of, television is a common source identified by urban area respondents and males, in particular. Otherwise, electronic road signs are also more likely to be cited by urban and male respondents. Radio is a common source that is more likely cited by males and rural respondents.

A couple key findings related to messaging and message sources are given below.

11. ***Click It or Ticket* is the slogan with the highest recall in the past 30 days and *Friends Don't Let Friends Drive Drunk* is the second-highest.** Nearly three-quarters (74 percent) of respondents recall seeing or hearing the Click It or Ticket slogan in the past 30 days, and 63 percent recall Friends Don't Let Friends Drive Drunk. Young respondents (under 35), and especially young urban respondents, are more likely to be familiar with Click It or Ticket. Friends Don't Let Friends Drive Drunk is more recalled by rural audiences, overall, and urban females are more likely to recall this slogan as well.

    A couple other drinking and driving slogans are two of the next most recalled (along with a motorcycle-related slogan), each at about 50 percent, and include: Safe and Sober and You Drink and Drive, You Lose. Again, each of these is more recalled by rural and older audiences. *Source: Exhibit 18*

12. **Seat belt enforcement efforts, drinking and driving enforcement efforts, and traffic safety slogans are mostly recalled via TV in unaided responses.** Television is the primary source for recall of traffic safety efforts and slogans. It is most commonly mentioned for recognition of a slogan (62 percent), followed by drinking and driving enforcement efforts (49 percent) and seat belt enforcement efforts (40 percent).

    Television is more commonly identified in some cases as a source for awareness by males and younger respondents, depending on the type of message. For slogans, television is mentioned slightly more often by urban, males and young unmarried males. For drinking and driving, more rural audiences including rural young respondents mention TV. In communicating seat belt enforcement efforts, young respondents under 35 recall TV as a source.

    Electronic road signs, which are approximately twice as likely to be recalled for either communicating general seat belt enforcement efforts or drinking and driving enforcement efforts as they are for recalling slogans, are much more likely to be recalled by urban respondents and young unmarried males.

    Radio is statistically more likely to be cited by rural respondents and rural male respondents than urban respondents for seat belt or enforcement efforts recall, and radio is more likely to be cited by rural male respondents for slogans compared to other groups. *Source: Exhibits 3, 15 and 19*

ADDITIONAL ANALYSES

Narrative: Young respondents and males, including young unmarried males – largely the same audiences of concern for seat belt non-usage and partly speeding and /or impaired driving – are more likely to talk on a cell phone and drive or text while driving. This behavior is accentuated slightly in urban areas. There is reasonably high existing awareness of the law specifically citing texting while driving among these audiences compared with the general population, however, which shows they are not necessarily being deterred.

Several key findings related to additional analyses are given below.

13. **Young, male, and urban residents are more likely to talk on a cell phone while driving, or text while driving.** Many of the same subpopulations of concern (i.e. young, male, young unmarried males) for other traffic safety behaviors such as those discussed earlier are also of concern for behaviors such as using their phone, or using their phone more frequently, while driving. This appears to be especially the case for those living in urban areas versus rural areas (especially including urban young unmarried males) for talking on the phone while driving. Females and older respondents are more likely to say they have not talked on the phone while driving in the past seven days.

    Texting while driving, in particular, is especially common for young unmarried males, both urban and rural. *Source: Exhibits 21 and 22*

14. **There is reasonably high awareness of the texting while driving law in Minnesota.** Overall, 77 percent of respondents are aware of this law. Young respondents under age 35 are statistically more aware of the law than those 35 and over (84 percent versus 74 percent). All younger subpopulations (across gender and geographic area), including young unmarried males, generally indicate higher awareness of this law than their older counterparts. *Source: Exhibit 23*

15. **There is a strong correlation between perceived risk and behavior, and a weaker correlation between messaging awareness and behavior.** Generally speaking, respondents who are aware of one type of messaging are more likely to be aware of other types of messaging. Similarly, those who perceive that they are likely to be punished for exhibiting one of the three main undesirable behaviors in the survey are more likely to believe they will be punished for the other behaviors as well. Finally, those who are more likely to actually do one of the undesirable behaviors are more likely to do one of the other behaviors as well.

    It is also interesting to note that there is a strong correlation between perceived risk and behavior. That is, if people worry that they will be ticketed or arrested for their behavior, they are less likely to exhibit that behavior. However, the correlation between message awareness and behavior is somewhat weak. In other words, being aware of a campaign does not necessarily have a direct impact on behavior. Instead, efforts that clearly demonstrate that these behaviors will not be tolerated will likely be most effective. *Source: Section 5*

DETAILED FINDINGS

TABLE INTERPRETATION

Throughout this report, a relatively consistent format is used to present the results of each question. The following is a general description of how to interpret these tables.

- In each table, the row heading contains all of the answers given by respondents to the question. The column heading contains each of the various subpopulations being examined (i.e., males, females, urban respondents, rural respondents, etc.). Therefore, the distribution of answers to each question is shown in each column. A shaded bar graph is shown behind each figure to aid visual identification of the findings of each question.
- The "sample size" row contains the total number of respondents in each category who answered the question. This number will vary slightly from question to question in cases where the question was only asked to a subset of respondents.
- The "X^2 (chi-square) result" row contains the results of a chi-square test for relationships between the demographic category being examined (e.g., gender) and the question being asked. In other words, this test identifies whether the variations in question responses are related to variations in group membership. This test was conducted at the 95 percent confidence level with three possible results as defined below:
    - *Different* – There is evidence (at the 95 percent confidence level) that there is a relationship between the demographic characteristic being examined and the question's results. In other words, the two groups have "different" response patterns.
    - *Not Different* – There is evidence (at the 95 percent confidence level) that there is *not* a relationship between the demographic characteristic being examined and the question's results. In other words, the two groups have the "same" response patterns.
    - *Inconclusive* – The results of the chi-square test are "inconclusive" at the 95 percent confidence level.
- Each analysis cell contains the percentage of respondents of each type who gave each answer. In addition, a z-test was conducted between individual responses to identify whether one group was significantly more (or less) likely to select a response. In cases where the two groups being examined were significantly more (or less) likely to select a response, an asterisk (*) is shown between the two percentages. All z-tests were conducted at the 95 percent confidence level.
- Figures in all tables have been rounded for reporting purposes. Occasionally, a column may not add exactly to 100 percent for this reason.
- As an example, consider the sample analysis table shown on the following page.

Sample Analysis Table

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	939	305	195	277	162	155	345	150	289
X^2 Result		Different		Different		Different		Inconclusive	
Car	54%	53%	64%*	41%	54%	67%*	55%	56%	44%
Van or minivan	9%	7%	4%	10%	16%	2%	7%	10%	14%
Motorcycle	1%	1%	0%	3%	-	0%	1%	1%	2%
Pickup truck	13%	13%*	4%	29%*	10%	6%	10%	16%	20%
Sport Utility Vehicle	20%	23%	23%	12%	18%	20%	24%	12%	16%
Other truck	-	-	-	-	-	-	-	-	-
Other	1%	1%	-	1%	-	-	1%	1%	0%
Never drive	3%	2%	4%	5%	3%	5%	2%	3%	4%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Sample Analysis Table Continued

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	939	110	390	109	330	239	66	343	291
***X2* Result**		Inconclusive		Inconclusive		Different		Different	
Car	54%	61%	59%	51%	47%	53%	73%*	45%	55%
Van or minivan	9%	3%	6%	4%	14%	2%	8%	11%	9%
Motorcycle	1%	1%	1%	2%	1%	1%	-	2%	0%
Pickup truck	13%	11%	8%	24%	19%	14%	5%	22%*	7%
Sport Utility Vehicle	20%	20%	23%	10%	16%	23%*	10%	16%	25%*
Other truck	-	-	-	-	-	-	-	-	-
Other	1%	-	1%	1%	0%	1%	-	1%	-
Never drive	3%	4%	3%	7%	3%	4%	4%	3%	3%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

As shown in the table above, 54 percent of all respondents most frequently drove a car. In addition, there were differences observed between respondents of different areas, genders, and ages (as evidenced by the results of the chi-square test). More specifically, urban respondents were more likely to drive a car than rural respondents (based on the presence of an asterisk in that result); females were more likely to drive a car than males; and younger respondents were more likely to drive a car than older respondents. Other significant differences can be observed in the other response categories indicated by an asterisk above.

SECTION 1: SEAT BELT BEHAVIORS AND ENFORCEMENT AWARENESS

Exhibit 1
Seat Belt Usage Frequency
(How often do you use seat belts when you drive or ride in a car, van, sport utility vehicle, or pick up?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
X^2 Result		Different		Different		Different		Different	
All of the time	91%	81%	93%*	93%	88%	87%	96%*	88%	93%
Most of the time	6%	11%	5%	4%	8%	9%*	2%	7%	5%
Some of the time	1%	5%*	1%	1%	2%	2%	0%	3%*	0%
Rarely	1%	1%	1%	1%	0%	1%	1%	2%	1%
Never	1%	2%	1%	1%	1%	2%	0%	1%	1%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

SEAT BELT USAGE FREQUENCY IS STATISTICALLY DIFFERENT ACROSS SUBPOPULATIONS OBSERVED

Young unmarried males are least likely to wear seatbelts "all of the time." Eighty one (81) percent of young unmarried males wear their seat belts "all of the time" versus 93 percent of all other respondents. This 12 percentage point difference is the largest observed between groups compared in Exhibit 1. A nine percentage point difference is observed between males and females, overall, with respective proportions of 87 percent and 96 percent wearing seat belts "all of the time." Each of these differences is statistically significant.

Differences observed between urban and rural respondents, while slightly smaller, are also statistically significant with 93 percent of urban respondents wearing seat belts "all of the time" versus 88 percent of rural respondents.

Differences by age are also small, but still statistically significant. Ninety three (93) percent of older respondents (i.e. 35+) report wearing seat belts all of the time and 88 percent of younger respondents report doing so.

Exhibit 1a
Seat Belt Usage Frequency by Detailed Subpopulations
(How often do you use seat belts when you drive or ride in a car, van, sport utility vehicle, or pick up?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	939	305	195	277	162	155	345	150	289
X^2 Result		Different		Different		Inconclusive		Inconclusive	
All of the time	91%	90%	96%*	81%	95%*	90%	95%	84%	90%
Most of the time	6%	7%*	1%	12%*	4%	5%	4%	10%	7%
Some of the time	1%	1%	-	3%	1%	2%	0%	5%	1%
Rarely	1%	1%	2%	1%	-	2%	1%	0%	1%
Never	1%	1%	1%	3%	-	1%	1%	1%	2%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Exhibit 1a Continued
Seat Belt Usage Frequency by Detailed Subpopulations
(How often do you use seat belts when you drive or ride in a car, van, sport utility vehicle, or pick up?)

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	939	110	390	109	330	239	66	343	291
X^2 Result		Different		Inconclusive		Different		Different	
All of the time	91%	82%	95%*	79%	89%	83%	93%	88%	97%*
Most of the time	6%	10%	3%	13%	7%	10%	3%	8%*	2%
Some of the time	1%	4%*	0%	5%	2%	4%	2%	1%	-
Rarely	1%	2%	1%	1%	0%	1%	2%	1%	1%
Never	1%	2%	1%	2%	1%	1%	-	2%	1%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

VARIOUS MALE SUBPOPULATIONS ARE LESS LIKELY TO WEAR THEIR SEATBELTS

Male subpopulations including urban males, rural males, urban young unmarried males, and males in both age groups are statistically less likely than their female counterparts to indicate that they wear their seatbelts "all of the time." Rural young unmarried males are also less likely to indicate this versus all other respondents. In all of these cases, males are instead more likely than females to indicate "most of the time" in lieu of "all of the time."

Overall, rural males, rural young unmarried males, and males under 35 are the least likely to indicate wearing their seatbelts "all of the time," with between 79-83 percent indicating this. This compares with 91 percent of respondents statewide.

Exhibit 1b
Seat Belt Usage Frequency by Vehicle Type Driven
(How often do you use seat belts when you drive or ride in a car, van, sport utility vehicle, or pick up?)

	Statewide	Car	Van	Truck	SUV	Other
Sample Size (n)	939	488	81	145	176	49
All of the time	91%	93%	90%	81%	95%	81%
Most of the time	6%	5%	6%	12%	3%	5%
Some of the time	1%	1%	-	4%	1%	1%
Rarely	1%	0%	-	2%	1%	7%
Never	1%	1%	4%	1%	-	6%

PICKUP TRUCK DRIVERS ARE LESS LIKELY TO WEAR SEAT BELTS ALL OF THE TIME

While 91 percent of respondents, overall, indicate they wear their seat belts all of the time, 81 percent of pickup truck drivers indicate this. Instead, higher proportions of pickup truck drivers indicate "most of the time," or "some of the time."

Given that pickup driver respondents are more likely male than female by about a three-to-one ratio (Exhibit 24), and considering the seat belt usage findings in Exhibit 1a above, this factor plays a role in pickup truck drivers' lack of seat belt usage.

Exhibit 2
Awareness of Seat Belt Enforcement Efforts
(In the past 30 days, have you read, seen, or heard anything about seat belt law enforcement by police?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
X^2 Result		Inconclusive		Not Different		Different		Not Different	
Yes	51%	54%	51%	51%	51%	57%*	45%	51%	51%
No	47%	45%	47%	47%	47%	41%	53%*	47%	47%
Don't know	2%	1%	2%	2%	2%	2%	2%	2%	2%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

MALES ARE STATISTICALLY MORE LIKELY TO HAVE NOTICED RECENT SEAT BELT ENFORCMENT EFFORTS

Fifty one (51) percent of survey respondents, overall, have read, seen or heard about seat belt law enforcement efforts in the past 30 days. In particular, fifty seven (57) percent of males have noticed these efforts versus 45 percent of females. This 12 percentage point difference is the only statistically significant difference observed among the respondent subpopulations considered in Exhibit 2 above. Otherwise, differences in awareness are minimal when comparing by young unmarried males versus others, urban versus rural, and younger versus older age respondent categories.

Exhibit 2a

Awareness of Seat Belt Enforcement Efforts by Detailed Subpopulations

(In the past 30 days, have you read, seen, or heard anything about seat belt law enforcement by police?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	939	305	195	277	162	155	345	150	289
X^2 Result		Different		Different		Inconclusive		Inconclusive	
Yes	51%	57%	46%	58%	44%	52%	50%	50%	51%
No	47%	41%	53%*	41%	53%	45%	48%	49%	46%
Don't know	2%	3%	1%	1%	3%	2%	2%	1%	2%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Exhibit 2a Continued
Awareness of Seat Belt Enforcement Efforts by Detailed Subpopulations
(In the past 30 days, have you read, seen, or heard anything about seat belt law enforcement by police?)

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	939	110	390	109	330	239	66	343	291
X^2 Result		Inconclusive		Inconclusive		Inconclusive		Different	
Yes	51%	56%	50%	51%	51%	51%	52%	60%*	43%
No	47%	44%	47%	46%	47%	45%	48%	39%	55%*
Don't know	2%	-	2%	3%	2%	4%	-	1%	3%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

STATISTICALLY SIGNIFICANT GENDER DIFFERENCES ARE OBSERVED ACROSS OLDER AGE AND GEOGRAPHIC AREA POPULATIONS

When examining more specific subpopulations, males 35 and older are statistically more likely (versus females 35 and older) to have noticed recent seat belt enforcement efforts. Similarly, males in both urban and rural areas are more likely than females in these areas to have noticed these efforts as well. Between 57-60 percent of males across all of these subpopulations indicate awareness of recent seat belt enforcement efforts. This compares with 51 percent of respondents statewide who are aware.

Exhibit 3
Sources of Seat Belt Enforcement Awareness
(Where did you read, see, or hear that message?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	481	117	364	261	220	324	157	161	320
X^2 Result		n/a		n/a		n/a		n/a	
TV	40%	39%	40%	39%	41%	41%	39%	42%	39%
Radio	10%	10%	10%	5%	16%*	14%*	5%	5%	12%
Friend/Relative	1%	2%	1%	1%	1%	2%	0%	1%	1%
Newspaper	9%	3%	10%	6%	13%	10%	8%	1%	13%*
Billboard/signs	20%	18%	20%	22%	17%	17%	22%	26%	17%
Personal observation/on the road	7%	11%	6%	8%	6%	7%	7%	9%	6%
Electronic Road Signs	13%	19%	12%	19%*	3%	13%	13%	12%	13%
Facebook	1%	-	1%	-	2%	-	1%	1%	0%
Twins	0%	-	0%	-	1%	-	1%	-	0%
Timberwolves	-	-	-	-	-	-	-	-	-
Other	6%	10%	5%	5%	7%	5%	7%	9%	4%
Don't know	1%	1%	1%	1%	1%	1%	1%	0%	1%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Note: This question was only asked to respondents who had seen such enforcement efforts (n=481).

TV IS THE MOST COMMON SOURCE MENTIONED, AND BILLBOARDS ARE SECOND-MOST COMMON

All subpopulations examined are most likely to cite TV as a source of enforcement messages with between 39-42 percent indicating this. About half this proportion (20 percent) statewide cites billboards/signs as a source. Younger respondents (under 35) are most likely of the subpopulations above to recall messages through this source.

Otherwise, a significantly higher proportion or rural respondents (versus urban respondents) cite radio as a source while urban respondents are much more likely to cite electronic road signs. Males also cite radio as a source statistically more often than females, and respondents ages 35 and over are more likely to recall messages through the newspaper versus their younger counterparts.

Exhibit 3a
Sources of Seat Belt Enforcement Awareness by Detailed Subpopulations
(Where did you read, see, or hear that message?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	481	173	88	151	69	84	177	77	143
X^2 Result		n/a		n/a		n/a		n/a	
TV	40%	38%	40%	43%	38%	45%	36%	37%	42%
Radio	10%	7%	3%	23%*	7%	2%	7%	9%	18%
Friend/Relative	1%	3%	-	1%	1%	1%	1%	-	1%
Newspaper	9%	8%	5%	14%	12%	1%	9%	1%	18%*
Billboard/signs	20%	18%	26%	16%	18%	27%	19%	24%	14%
Personal observation/on the road	7%	9%	6%	4%	8%	8%	7%	10%	4%
Electronic Road Signs	13%	19%	19%	3%	3%	18%	20%	1%	4%
Facebook	1%	-	-	-	4%	-	-	4%	1%
Twins	0%	-	-	-	2%	-	-	-	1%
Timberwolves	-	-	-	-	-	-	-	-	-
Other	6%	6%	4%	4%	10%	3%	6%	19%*	2%
Don't know	1%	1%	1%	0%	2%	-	1%	1%	1%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Exhibit 3a Continued
Sources of Seat Belt Enforcement Awareness by Detailed Subpopulations
(Where did you read, see, or hear that message?)

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	481	61	200	56	164	127	34	197	123
X^2 Result		n/a		n/a		n/a		n/a	
TV	40%	37%	40%	43%	41%	49%	35%	37%	42%
Radio	10%	5%	5%	17%	16%	7%	2%	16%	6%
Friend/Relative	1%	3%	1%	-	1%	2%	-	2%	0%
Newspaper	9%	3%	7%	3%	15%	2%	-	14%	11%
Billboard/signs	20%	18%	22%	17%	17%	19%	32%	16%	18%
Personal observation/on the road	7%	12%	7%	11%	5%	9%	10%	6%	6%
Electronic Road Signs	13%	29%	18%	2%	3%	14%	9%	12%	15%
Facebook	1%	-	-	-	2%	-	3%	-	1%
Twins	0%	-	-	-	1%	-	-	-	1%
Timberwolves	-	-	-	-	-	-	-	-	-
Other	6%	7%	5%	14%	6%	7%	10%	4%	5%
Don't know	1%	-	1%	2%	1%	1%	-	1%	2%

Note: This question was only asked to respondents who had seen such enforcement efforts (n=481).

ELECTRONIC ROAD SIGNS ARE THE SECOND-MOST COMMON SOURCE FOR CERTAIN SUBPOPULATIONS

When examining specific subpopulations, TV remains the most common source for seat belt enforcement messages. While billboards/signs remain the second-most common source for many, electronic road signs arise as the second-most common source for others. Urban males, urban respondents ages 35 and over, and urban young unmarried males are those citing electronic road signs as the second-most common source for these messages.

Exhibit 4
Perceived Likelihood of Being Ticketed for not Wearing a Seat Belt
(How likely do you think you are to get a ticket if you don't wear your seat belt?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
X^2 Result		Inconclusive		Inconclusive		Inconclusive		Different	
Very likely	35%	26%	36%	33%	38%	33%	36%	29%	37%
Somewhat likely	35%	43%	34%	34%	37%	33%	37%	39%	33%
Somewhat unlikely	16%	19%	16%	17%	14%	19%	14%	19%	15%
Very unlikely	14%	12%	14%	15%	12%	15%	13%	12%	15%

OLDER RESPONDENTS ARE MORE LIKELY THAN YOUNGER TO PERCEIVE TICKETING FOR NOT WEARING A SEAT BELT AS VERY LIKELY

Thirty five (35) percent overall believe they are "very likely" to get a ticket if they do not wear a seat belt. Thirty seven (37) percent of respondents, ages 35 and over indicate a perception of being "very likely" to be ticketed for not wearing a seat belt. This is the highest proportion among subpopulations examined, and compares with 29 percent of respondents under 35 years in age, and just 26 percent of young unmarried males, who believe this. These younger subpopulations are more likely to indicate being just "somewhat likely" to be ticketed, with proportions between 39 and 43 percent.

Exhibit 4a

Perceived Likelihood of Being Ticketed for not Wearing a Seat Belt by Detailed Subpopulations

(How likely do you think you are to get a ticket if you don't wear your seat belt?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	939	305	195	277	162	155	345	150	289
X^2 Result		Inconclusive		Inconclusive		Inconclusive		Different	
Very likely	35%	32%	35%	36%	39%	28%	36%	31%	40%
Somewhat likely	35%	32%	36%	34%	40%	38%	32%	41%	35%
Somewhat unlikely	16%	20%	15%	18%	11%	19%	17%	20%	12%
Very unlikely	14%	17%	14%	13%	11%	15%	15%	8%	13%

Exhibit 4a Continued
Perceived Likelihood of Being Ticketed for not Wearing a Seat Belt by Detailed Subpopulations
(How likely do you think you are to get a ticket if you don't wear your seat belt?)

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	939	110	390	109	330	239	66	343	291
X2 Result		Inconclusive		Inconclusive		Inconclusive		Inconclusive	
Very likely	35%	25%	34%	26%	39%	31%	27%	35%	40%
Somewhat likely	35%	40%	33%	47%	35%	37%	42%	31%	35%
Somewhat unlikely	16%	18%	17%	22%	13%	22%	16%	17%	12%
Very unlikely	14%	16%	15%	5%	12%	10%	14%	17%	12%

YOUNGER RURAL RESPONDENTS ARE STATISTICALLY LESS LIKELY THAN OLDER RURAL RESPONDENTS TO BELIEVE THEY WILL BE TICKETED FOR NOT WEARING A SEAT BELT

Younger rural respondents are statistically less likely than older rural respondents to believe ticketing is likely for not wearing a seat belt. Forty one (41) percent of younger rural respondents believe this enforcement is just "somewhat likely" and another 20 percent believe that it is "somewhat unlikely." While not statistically significant, a similar pattern is observed among both rural and urban young unmarried males.

Other subpopulations less likely than statewide respondents overall to believe they are "very likely" to get a ticket for not wearing a seat belt include: urban males; urban respondents under 35; both urban and rural young unmarried males; and males under 35 years of age. Overall, younger audiences are less likely to believe they will get a ticket in this scenario.

Exhibit 4b
Perceived Likelihood of Being Ticketed for not Wearing a Seat Belt by Type of Vehicle Driven
(How likely do you think you are to get a ticket if you don't wear your seat belt?)

	Statewide	Car	Van	Truck	SUV	Other
Sample Size (n)	939	488	81	145	176	49
Very likely	35%	34%	40%	27%	39%	47%
Somewhat likely	35%	35%	25%	45%	36%	22%
Somewhat unlikely	16%	16%	17%	15%	17%	14%
Very unlikely	14%	15%	18%	14%	8%	18%

PICKUP TRUCK DRIVERS ARE JUST SOMEWHAT LIKELY TO BELIEVE THEY WILL BE TICKED FOR NOT WEARING A SEATBELT

Only twenty seven (27) percent of pickup truck drivers (versus 35 percent of all drivers) indicate being "very likely" to be ticketed for not wearing a seat belt. Instead, pickup truck drivers are more likely to choose being just "somewhat likely" to be ticketed, by 10 percentage points than all drivers.

Exhibit 5
Importance of Seat Belt Law being Primary
(How important do you think it is for the Minnesota Seat Belt Law to be Primary?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
X^2 Result		Different		Inconclusive		Different		Different	
Very important	58%	38%	60%*	58%	57%	47%	67%*	52%	60%
Fairly important	16%	24%	15%	15%	18%	17%	16%	22%*	14%
Just somewhat important	12%	19%	12%	13%	11%	16%*	9%	15%	11%
Not that important	14%	20%	13%	14%	14%	20%*	7%	11%	15%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

THOSE YOUNGER AND MALE ARE LESS LIKELY TO CONSIDER THE SEAT BELT LAW BEING PRIMARY AS VERY IMPORTANT

Young unmarried males are least likely of all subpopulations examined to consider the Primary seat belt law as being "very important." While 58 percent of statewide respondents believe this, only 38 percent of young unmarried males do. Males in general are less likely to consider this law as "very important" (47 percent) as well as those under 35 years old (52 percent).

Otherwise, very little difference in opinions exists between urban and rural respondents.

Exhibit 5a
Importance of Seat Belt Law being Primary by Detailed Subpopulations
(How important do you think it is for the Minnesota Seat Belt Law to be Primary?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	939	305	195	277	162	155	345	150	289
X^2 Result		Different		Different		Inconclusive		Different	
Very important	58%	49%	67%*	46%	68%*	54%	60%	49%	60%
Fairly important	16%	15%	15%	18%	18%	18%	14%	27%*	14%
Just somewhat important	12%	16%	11%	15%	7%	16%	12%	14%	10%
Not that important	14%	20%*	8%	21%*	7%	11%	15%	10%	15%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Exhibit 5a Continued
Importance of Seat Belt Law being Primary by Detailed Subpopulations
(How important do you think it is for the Minnesota Seat Belt Law to be Primary?)

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	939	110	390	109	330	239	66	343	291
X^2 Result		Different		Inconclusive		Different		Different	
Very important	58%	36%	61%*	41%	59%	41%	64%*	51%	69%*
Fairly important	16%	23%	14%	25%	17%	25%	18%	13%	15%
Just somewhat important	12%	18%	13%	21%	10%	18%	12%	15%*	8%
Not that important	14%	24%	12%	13%	14%	16%*	5%	22%*	8%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

YOUNG UNMARRIED MALES AND YOUNG MALES ARE VERY SIMILAR IN THEIR OPINIONS ON IMPORTANCE OF THE PRIMARY SEAT BELT LAW

Young unmarried males across both urban and rural areas and young males in general are similar in their opinions on importance of the primary seat belt law. Overall, males in these subpopulations are considerably less likely to consider this law as "very important" (36-41 percent) versus all respondents (58 percent).

Overall, nearly all male subpopulations are statistically less likely than their female counterparts to view the primary seat belt law as "very important."

SECTION 2: SPEEDING BEHAVIORS AND ENFORCEMENT AWARENESS

Exhibit 6
Speeding Frequency
(On a road with a speed limit of 65 mph, how often do you drive faster than 70 mph?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
X^2 Result		Different		Inconclusive		Different		Different	
Most of the time	8%	12%	8%	9%	8%	10%	7%	11%	7%
Half the time	14%	22%	13%	15%	13%	16%	12%	21%*	11%
Rarely	48%	46%	48%	48%	46%	49%	47%	46%	48%
Never	29%	19%	31%	27%	33%	24%	34%*	21%	33%*
Don't know	0%	1%	0%	0%	0%	1%	-	0%	0%
Refused	0%	1%	0%	1%	0%	0%	1%	0%	1%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

YOUNG RESPONDENTS AND YOUNG UNMARRIED MALES ARE MORE LIKELY TO DRIVE FASTER THAN 70 MPH WITH A SPEED LIMIT OF 65 MPH

Twenty two (22) percent of statewide respondents indicate speeding in a 65 mile per hour zone at least "half the time." On the other hand, one-third of young unmarried males and one-third of respondents under 35 years of age indicate speeding at least "half the time," and thus, a higher incidence of this behavior.

One other statistically significant difference observed is females are more likely than males to state that they "never" speed, and females as a group are statistically less likely to speed than males.

Exhibit 6a
Speeding Frequency by Detailed Subpopulations
(On a road with a speed limit of 65 mph, how often do you drive faster than 70 mph?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	939	305	195	277	162	155	345	150	289
X^2 Result		Different		Inconclusive		Different		Different	
Most of the time	8%	11%	7%	8%	8%	9%	9%	14%	5%
Half the time	14%	18%	11%	13%	12%	24%*	10%	16%	11%
Rarely	48%	48%	48%	49%	44%	44%	51%	50%	45%
Never	29%	21%	32%*	29%	36%	23%	29%	19%	38%*
Don't know	0%	1%	-	1%	-	0%	0%	0%	0%
Refused	0%	0%	1%	0%	-	0%	1%	1%	-

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Exhibit 6a Continued
Speeding Frequency by Detailed Subpopulations
(On a road with a speed limit of 65 mph, how often do you drive faster than 70 mph?)

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	939	110	390	109	330	239	66	343	291
X^2 Result		Different		Inconclusive		Inconclusive		Different	
Most of the time	8%	14%	8%	8%	8%	9%	12%	10%	5%
Half the time	14%	26%	13%	14%	12%	23%	19%	13%	9%
Rarely	48%	40%	50%	56%	45%	46%	47%	50%	46%
Never	29%	19%	28%	19%	34%	21%	22%	26%	39%*
Don't know	0%	1%	0%	1%	0%	1%	-	1%	-
Refused	0%	1%	1%	2%	-	1%	-	0%	1%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

OLDER AND FEMALE RESPONDENTS ARE MORE LIKELY TO NEVER SPEED

Twenty nine (29) percent of statewide respondents overall indicate they never speed. Urban females and females 35 and older are particularly more likely than their urban and older male counterparts to indicate that they "never" drive faster than 70 miles per hour on a road with a speed limit of 65 miles per hour. Rural respondents 35 and older are also statistically more likely (38 percent versus 19 percent) than younger rural respondents to indicate this same behavior.

This finding is somewhat the flipside of the earlier finding that shows younger drivers and young unmarried males as being more likely to speed.

Exhibit 7
Awareness of Speeding Enforcement Efforts
(In the past 30 days, have you read, seen or heard anything about speed enforcement by police?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
X^2 Result		Inconclusive		Different		Different		Inconclusive	
Yes	53%	51%	53%	56%	49%	58%*	48%	54%	53%
No	46%	49%	46%	44%	50%	41%	51%*	46%	46%
Don't know	1%	0%	1%	0%	2%	1%	1%	0%	1%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

AWARENESS OF RECENT SPEED ENFORCEMENT EFFORTS IS DIFFERENT BY GEOGRAPHIC AREA AND GENDER

Overall, statewide respondents are nearly evenly split as to whether they have recently read, seen or heard anything about speed enforcement efforts by police in the past 30 days. However, males are statistically more likely than females to be aware of these speeding enforcement efforts. And urban respondents are statistically more likely than rural ones to be aware of these efforts.

There is otherwise little difference observed by age group or when examining young unmarried males, in particular.

Exhibit 7a

Awareness of Speeding Enforcement Efforts by Detailed Subpopulations

(In the past 30 days, have you read, seen or heard anything about speed enforcement by police?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	939	305	195	277	162	155	345	150	289
X^2 Result		Different		Inconclusive		Inconclusive		Inconclusive	
Yes	53%	63%*	50%	53%	45%	57%	55%	48%	49%
No	46%	37%	50%*	46%	53%	43%	44%	52%	49%
Don't know	1%	0%	0%	1%	2%	-	0%	0%	2%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Exhibit 7a Continued
Awareness of Speeding Enforcement Efforts by Detailed Subpopulations
(In the past 30 days, have you read, seen or heard anything about speed enforcement by police?)

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	939	110	390	109	330	239	66	343	291
X^2 Result		Inconclusive		Inconclusive		Inconclusive		Different	
Yes	53%	51%	57%	50%	49%	55%	52%	60%*	46%
No	46%	49%	43%	49%	50%	45%	48%	39%	53%*
Don't know	1%	-	0%	1%	2%	0%	-	1%	1%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

OLDER MALES AND URBAN MALES ARE MORE AWARE OF RECENT SPEED ENFORCMENT EFFORTS

Compared with 53 percent of respondents statewide, 63 percent of urban males (versus 50 percent of urban females) are aware of recent speeding enforcement efforts. This difference between urban males and urban females is statistically significant. Another statistically significant difference by gender is males ages 35 and older who are more likely than their 35 and older female counterparts to have noticed these efforts.

Little difference is observed when comparing other specific subpopulations.

Exhibit 8
Perceived Likelihood of Being Ticketed for Speeding
(How likely do you think you are to get a ticket if you drive over the speed limit?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
X^2 Result		Inconclusive		Different		Different		Different	
Very likely	27%	30%	27%	23%	34%*	23%	32%*	35%*	24%
Somewhat likely	48%	49%	48%	49%	46%	48%	48%	48%	48%
Somewhat unlikely	15%	13%	15%	19%*	10%	17%	13%	11%	17%
Very unlikely	8%	7%	8%	7%	9%	9%	7%	6%	9%
Don't know	1%	1%	1%	2%	1%	2%	0%	0%	2%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

RURAL, FEMALE AND YOUNGER RESPONDENTS ARE MORE LIKELY TO BELIEVE THEY WILL BE TICKETED FOR SPEEDING

Nearly half of statewide respondents believe they are "somewhat likely" to be ticketed for speeding if they drive over the speed limit. This finding holds true across subpopulations examined in Exhibit 8. A difference is observed, however, in those who indicate a perception of being "very likely" to be ticketed in this case. Thirty two (32) to 35 percent of each rural, female, and younger (under 35) subpopulation respondent audiences indicate this perception versus 27 percent of statewide respondents and slightly lower proportions among their counterparts.

Exhibit 8a
Perceived Likelihood of Being Ticketed for Speeding by Detailed Subpopulations
(How likely do you think you are to get a ticket if you drive over the speed limit?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	939	305	195	277	162	155	345	150	289
X^2 Result		Different		Different		Different		Inconclusive	
Very likely	27%	21%	25%	25%	42%*	30%	20%	44%	30%
Somewhat likely	48%	47%	51%	49%	43%	52%	48%	42%	48%
Somewhat unlikely	15%	20%	17%	13%	7%	13%	21%	7%	11%
Very unlikely	8%	8%	7%	12%	7%	4%	9%	8%	10%
Don't know	1%	3%*	-	1%	1%	1%	2%	-	2%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Exhibit 8a Continued
Perceived Likelihood of Being Ticketed for Speeding by Detailed Subpopulations
(How likely do you think you are to get a ticket if you drive over the speed limit?)

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	939	110	390	109	330	239	66	343	291
X^2 Result		Inconclusive		Inconclusive		Inconclusive		Different	
Very likely	27%	27%	23%	34%	33%	33%	37%	18%	30%*
Somewhat likely	48%	50%	49%	48%	46%	47%	50%	48%	47%
Somewhat unlikely	15%	14%	19%	12%	9%	12%	9%	20%	14%
Very unlikely	8%	7%	7%	6%	10%	7%	4%	11%	8%
Don't know	1%	2%	2%	-	1%	1%	-	3%	1%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

RURAL FEMALES AND FEMALES AGES 35 AND OVER PERCEIVE A GREATER LIKELIHOOD OF RECEIVING A SPEEDING TICKET THAN THEIR MALE COUNTERPARTS

Rural females are significantly more likely than rural males (42 percent versus 25 percent) to perceive being "very likely" to receive a ticket if they drive over the speed limit. Similarly, females 35 and older are more likely than males of the same age (30 percent versus 18 percent) to perceive being "very likely" to receive a speeding ticket.

Other subpopulation groups showing statistically significant differences in perceptions include urban males (versus urban females), as well as urban respondents under 35 (versus those 35 and over). Out of these groups, urban females and younger urban respondents perceive a greater likelihood of being stopped for a ticket if they drive over the speed limit.

Exhibit 9
Perceived Level of Speeding at which Police would Stop a Vehicle
(How far over the speed limit do you think you can drive before a police officer would stop you for speeding?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
***X*² Result**		Inconclusive		Inconclusive		Different		Inconclusive	
1-5mph	57%	57%	57%	57%	58%	53%	61%	54%	59%
6-10mph	39%	37%	39%	38%	40%	41%	36%	41%	38%
11-15mph	3%	3%	3%	4%	2%	4%	2%	3%	3%
More than 15mph	1%	3%	1%	1%	1%	1%	1%	2%	1%
Mean response	6.5	7.0	6.5	6.7	6.2	6.8	6.2	7.0	6.3

MOST BELIEVE THEY CAN DRIVE 1-10 MILES PER HOUR OVER THE SPEED LIMIT BEFORE BEING STOPPED BY A POLICE OFFICER

A majority (57 percent) believe they can speed just 1-5 miles per hour over the speed limit before being stopped. Another 39 percent believe they can speed 6-10 miles per hour over the limit. These proportions are roughly similar across subpopulations examined. One statistically significant difference observed is between males and females. Females are more likely to believe 1-5 miles over the speed limit is the limit versus males who are more likely to perceive they can travel 6-10 miles per hour over the limit before being stopped.

Exhibit 9a

Perceived Level of Speeding at which Police would Stop a Vehicle by Detailed Subpopulations

(How far over the speed limit do you think you can drive before a police officer would stop you for speeding?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	939	305	195	277	162	155	345	150	289
X^2 Result		Inconclusive		Inconclusive		Inconclusive		Inconclusive	
1-5mph	57%	53%	61%	54%	61%	55%	58%	53%	59%
6-10mph	39%	41%	35%	42%	38%	39%	38%	44%	38%
11-15mph	3%	5%	2%	3%	1%	4%	4%	2%	2%
More than 15mph	1%	1%	1%	1%	-	3%	1%	1%	0%
Mean response	6.5	7.0	6.4	6.5	6.0	7.2	6.5	6.7	6.0

Exhibit 9a Continued
Perceived Level of Speeding at which Police would Stop a Vehicle by Detailed Subpopulations
(How far over the speed limit do you think you can drive before a police officer would stop you for speeding?)

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	939	110	390	109	330	239	66	343	291
X^2 Result		Inconclusive		Inconclusive		Inconclusive		Different	
1-5mph	57%	55%	57%	58%	57%	58%	50%	51%	66%*
6-10mph	39%	38%	38%	37%	40%	36%	45%	44*%	33%
11-15mph	3%	4%	4%	2%	2%	4%	3%	4%	1%
More than 15mph	1%	3%	1%	3%	0%	2%	2%	1%	0%
Mean response	6.5	7.1	6.7	6.7	6.2	7.0	7.0	6.7	5.9

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

OLDER MALES AND OLDER FEMALES DIFFER SIGNIFICANTLY IN PERCEPTION OF HOW MUCH THEY CAN SPEED BEFORE BEING STOPPED

Older females (35 and older) are significantly more likely to indicate an ability to speed the minimum of 1-5 miles per hour over the speed limit versus males 35 and older who indicate this amount. Two thirds of females indicate this versus about half of males. Otherwise, males 35 and older are more likely to perceive an ability to speed 6-10 miles over the speed limit without being stopped.

All other specific subpopulations do not vary significantly when compared with each other and are generally in-line with statewide results.

Exhibit 10
Alcohol Use
(During the past 7 days have you had at least one drink of any alcoholic beverage, including liquor, beer, wine or wine coolers?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
X^2 Result		Inconclusive		Different		Inconclusive		Inconclusive	
Yes	49%	51%	49%	52%*	44%	51%	48%	49%	49%
No	51%	49%	51%	47%	56%	49%	52%	51%	51%
Don't know	-	-	-	-	-	-	-	-	-
Refused	0%	0%	0%	0%	-	1%	-	0%	0%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

HALF OF STATEWIDE RESPONDENTS INDICATE HAVING AT LEAST ONE DRINK IN THE PAST 7 DAYS

The proportion of those indicating they have had a drink in the past seven days and those who have not is roughly similar across subpopulations examined in Exhibit 10. The only statistically significant difference observed is between urban and rural area respondents, where urban respondents are more likely (52 percent versus 44 percent) to indicate having at least one drink in the past seven days.

Exhibit 10a
Alcohol Use by Detailed Subpopulations
(During the past 7 days have you had at least one drink of any alcoholic beverage, including liquor, beer, wine or wine coolers?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	939	305	195	277	162	155	345	150	289
X^2 Result		Inconclusive		Inconclusive		Inconclusive		Inconclusive	
Yes	49%	54%	51%	46%	43%	53%	52%	43%	45%
No	51%	45%	49%	54%	57%	47%	47%	57%	55%
Don't know	-	-	-	-	-	-	-	-	-
Refused	0%	1%	-	-	-	0%	1%	-	-

Exhibit 10a Continued
Alcohol Use by Detailed Subpopulations
(During the past 7 days have you had at least one drink of any alcoholic beverage, including liquor, beer, wine or wine coolers?)

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	939	110	390	109	330	239	66	343	291
X^2 Result		Inconclusive		Inconclusive		Inconclusive		Inconclusive	
Yes	49%	56%	52%	42%	45%	46%	51%	52%	46%
No	51%	43%	48%	58%	55%	53%	49%	47%	54%
Don't know	-	-	-	-	-	-	-	-	-
Refused	0%	1%	0%	-	-	0%	-	1%	-

NO DIFFERENCES IN DRINKING BEHAVIOR ARE OBSERVED ACROSS SPECIFIC SUBPOPULATIONS

As shown in Exhibit 10a, there are no statistically significant differences observed between specific subpopulations examined. While urban and rural respondents are slightly different based on findings in Exhibit 10, no differences in subpopulations within these geographic areas exist.

Exhibit 11
Frequency of Driving after Drinking
(In the past 30 days, how many times have you driven a motor vehicle within 2 hours after drinking alcoholic beverages?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
X^2 Result		Inconclusive		Inconclusive		Different		Inconclusive	
None	85%	79%	85%	84%	85%	75%	94%*	84%	85%
1	6%	7%	6%	7%	5%	9%*	3%	7%	5%
2	4%	5%	4%	3%	5%	6%*	2%	4%	4%
3	1%	2%	1%	1%	1%	1%	1%	1%	1%
4	1%	2%	1%	1%	1%	2%*	-	1%	1%
5 times or more	3%	4%	3%	3%	2%	5%*	1%	3%	3%
Refused	0%	1%	0%	0%	0%	1%	-	0%	0%
Mean response	0.5	0.7	0.5	0.5	0.5	0.8	0.2	0.5	0.5

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

MALES AND FEMALES DIFFER IN THEIR DRINKING AND DRIVING TENDENCIES

While there are no significant differences in several subpopulations observed in Exhibit 11, there does exist a noteworthy difference in drinking and driving behavior as indicated by gender. Females are significantly more likely to indicate "none" as the number of times in the past 30 days that they have driven a vehicle within two hours of drinking. On the other hand, males are statistically more likely than females to indicate engaging in this behavior one or two times in the past 30 days, or as many as four or more times within the same time period.

Young, unmarried males, in particular, may drink and drive slightly more often than all other respondents, but this result is inconclusive in terms of statistical significance.

Exhibit 11a
Frequency of Driving after Drinking by Detailed Subpopulations
(In the past 30 days, how many times have you driven a motor vehicle within 2 hours after drinking alcoholic beverages?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	939	305	195	277	162	155	345	150	289
X^2 Result		Different		Different		Inconclusive		Inconclusive	
None	85%	73%*	95%	78%*	92%	84%	85%	85%	85%
1	6%	11%*	2%	6%	4%	7%	7%	8%	4%
2	4%	6%*	1%	6%	3%	4%	3%	3%	5%
3	1%	1%	1%	2%	0%	1%	1%	1%	1%
4	1%	2%	-	3%	-	0%	1%	1%	1%
5 times or more	3%	5%	1%	5%*	-	3%	3%	2%	3%
Refused	0%	1%	-	1%	-	0%	0%	1%	0%
Mean	0.5	0.9	0.2	0.8	0.1	0.5	0.5	0.5	0.5

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Exhibit 11a Continued
Frequency of Driving after Drinking by Detailed Subpopulations
(In the past 30 days, how many times have you driven a motor vehicle within 2 hours after drinking alcoholic beverages?)

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	939	110	390	109	330	239	66	343	291
X^2 Result		Inconclusive		Inconclusive		Different		Different	
None	85%	79%	85%	80%	86%	78%	91%*	74%	95%*
1	6%	7%	7%	8%	5%	8%	6%	9%*	2%
2	4%	6%	3%	4%	5%	7%	1%	6%	2%
3	1%	3%	1%	1%	1%	2%	-	1%	1%
4	1%	1%	1%	3%	1%	1%	-	3%*	-
5 times or more	3%	5%	3%	3%	2%	4%	2%	6%*	0%
Refused	0%	1%	0%	2%	0%	1%	-	1%	-
Mean	0.5	0.9	0.5	0.5	0.5	0.8	0.2	0.9	0.1

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

ALL MALE SUBPOPULATIONS EXAMINED ARE MORE LIKELY TO DRINK AND DRIVE VERSUS THEIR RESPECTIVE FEMALE SUBPOPULATIONS

Males in both urban and rural areas are statistically likely to drink and drive more often versus their female counterparts in these areas. Similarly, both male subpopulation groups by age (i.e. under the age of 35, and 35 and older) drink and drive significantly more often than their female counterparts. When age groups alone are compared (under 35 versus 35+), however, there is no difference in self-reported drinking and driving behavior.

The young unmarried males group does not differ significantly in these self-reported drinking and driving behaviors when compared with all other respondents.

Exhibit 12
Perceived Likelihood of Being Arrested for Driving after Drinking
(How likely do you think it is that someone will get arrested if they drive after drinking?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
X^2 Result		Different		Different		Different		Different	
Very likely	36%	46%	35%	33%	40%	35%	37%	49%*	31%
Somewhat likely	50%	48%	50%	50%	50%	48%	52%	45%	52%
Not likely	11%	4%	12%	12%	9%	14%*	8%	4%	14%*
Don't know	3%	2%	3%	4%	1%	3%	3%	1%	4%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

SUBPOPULATION COMPARISON REVEALS DIFFERENCES IN PERCEPTIONS OF LIKELIHOOD OF BEING ARRESTED FOR DRIVING AFTER DRINKING

Overall, just over one third of statewide respondents believe it is "very likely" that someone will get arrested if they drive after drinking. Generally, younger age groups are more likely to perceive a greater chance of someone being arrested after drinking and driving than older age groups. Respondents under 35 are more likely than those 35 and older to indicate they believe this scenario is "very likely." Young unmarried males are also more likely to indicate this response versus all other respondents.

A comparison of respondents by geographic area and gender also shows differences in perceptions. Those in rural areas are more likely to perceive a greater likelihood of being arrested for driving after drinking. And females are somewhat more likely than males to perceive this same likelihood.

Exhibit 12a

Perceived Likelihood of Being Arrested for Driving after Drinking by Detailed Subpopulations

(How likely do you think it is that someone will get arrested if they drive after drinking?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	939	305	195	277	162	155	345	150	289
X^2 Result		Different		Inconclusive		Different		Different	
Very likely	36%	33%	34%	38%	43%	47%*	27%	53%*	35%
Somewhat likely	50%	46%	54%	50%	49%	45%	53%	45%	52%
Not likely	11%	16%*	8%	11%	7%	6%	15%*	2%	11%*
Don't know	3%	4%	4%	1%	1%	2%	5%	1%	2%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Exhibit 12a Continued
Perceived Likelihood of Being Arrested for Driving after Drinking by Detailed Subpopulations
(How likely do you think it is that someone will get arrested if they drive after drinking?)

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	939	110	390	109	330	239	66	343	291
X^2 Result		Inconclusive		Inconclusive		Inconclusive		Different	
Very likely	36%	44%	32%	49%	39%	51%	48%	28%	33%
Somewhat likely	50%	50%	50%	45%	50%	42%	48%	50%	54%
Not likely	11%	4%	13%	4%	9%	6%	3%	18%*	10%
Don't know	3%	2%	4%	1%	1%	1%	1%	4%	3%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

YOUNGER RESPONDENTS UNDER AGE 35 IN BOTH RURAL AND URBAN AREAS ARE SIGNIFICANTLY MORE LIKELY TO PERCEIVE A LIKELY ARREST FOR DRINKING AND DRIVING

Across both urban and rural areas, a statistically significant difference between younger (under age 35) and older respondents (35 and over) is observed in perception of the likelihood of an arrest when a person is drinking and driving. In particular, respondents under 35 years of age in both geographic areas are statistically more likely to indicate "very likely" that someone will get arrested if they drive after drinking. In contrast, respondents in both of these area 35 years of age and older are more likely to believe someone who drives after drinking is "not likely" at all to be arrested.

A couple other groups statistically more likely to perceive an arrest in this situation is "not likely" include urban males (compared with urban females) and males 35 and over (versus females 35 and over). Each of these subpopulation group comparisons (i.e. area by gender and age by gender) is statistically different from the other.

Exhibit 13
Perceived Likelihood of Being Stopped for Driving Drunk
(Suppose you drove a motor vehicle after drinking alcohol and the amount of alcohol in your body was more than what the law allows for drivers. How likely is it that the police would stop you?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
X^2 Result		Inconclusive		Different		Different		Different	
Very likely	44%	47%	43%	39%	51%	35%	53%*	61%*	37%
Somewhat likely	43%	46%	43%	45%	40%	49%*	38%	34%	47%*
Not likely	10%	4%	10%	12%	7%	13%*	6%	3%	12%*
Don't know	3%	3%	3%	4%	2%	3%	4%	2%	4%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

THE PERCEIVED LIKELIHOOD OF BEING STOPPED FOR DRIVING DRUNK VARIES AMONG SUBPOPULATIONS

The vast majority (88 percent) of statewide respondents are evenly split between perceiving they are "very likely" or "somewhat likely" to be stopped for driving after drinking and with a higher than legal amount of alcohol in their system. Significant differences, however, are observed among subpopulations by geographic area, gender and age. In particular, rural respondents are more likely than urban respondents to believe being stopped is "very likely." Female respondents and respondents under the age of 35 are also more likely to assess their likelihood of being stopped for driving while drunk as "very likely." Respondents 35 and over are four times more likely as those under the age of 35 to indicate they are "not likely" to be stopped in this situation.

Exhibit 13a

Perceived Likelihood of Being Stopped for Driving Drunk by Detailed Subpopulations

(Suppose you drove a motor vehicle after drinking alcohol and the amount of alcohol in your body was more than what the law allows for drivers. How likely is it that the police would stop you?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	939	305	195	277	162	155	345	150	289
X^2 Result		Different		Different		Inconclusive		Different	
Very likely	44%	29%	49%*	43%	58%*	55%*	32%	70%*	43%
Somewhat likely	43%	50%	40%	47%	34%	38%	49%	28%	45%*
Not likely	10%	17*%	7%	8%	5%	5%	15%*	1%	9%
Don't know	3%	4%	4%	2%	3%	3%	5%	1%	3%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Exhibit 13a Continued

Perceived Likelihood of Being Stopped for Driving Drunk by Detailed Subpopulations

(Suppose you drove a motor vehicle after drinking alcohol and the amount of alcohol in your body was more than what the law allows for drivers. How likely is it that the police would stop you?)

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	939	110	390	109	330	239	66	343	291
X^2 Result		Inconclusive		Inconclusive		Different		Different	
Very likely	44%	40%	39%	57%	50%	50%	72%*	28%	45%*
Somewhat likely	43%	51%	44%	37%	40%	42%*	26%	52%	42%
Not likely	10%	4%	13%	3%	7%	6%	1%	17%*	8%
Don't know	3%	4%	4%	3%	2%	2%	1%	4%	5%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

MALES AND FEMALES ARE STATISTICALLY DIFFERENT IN PERCEPTIONS, INCLUDING ACROSS GEOGRAPHIC AREAS AND ACROSS AGE GROUPS

Both urban and rural males are statistically less likely than their female counterparts to believe police will stop them for driving under the influence of alcohol. Also, both groups of males by age (i.e. under 35 and 35 and over) are generally less likely than their female counterparts to believe they will be stopped.

Rural respondents including both males and females under the age of 35 are significantly more likely to perceive they will be stopped when compared with respondents ages 35 and over.

Exhibit 14
Awareness of Impaired Driving Enforcement Efforts
(In the past 30 days, have you read, seen, or heard anything about alcohol-impaired driving (or drunk driving) enforcement by police?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
X^2 Result		Inconclusive		Different		Different		Inconclusive	
Yes	66%	70%	66%	70%*	62%	72%*	62%	67%	66%
No	31%	29%	31%	28%	36%*	27%	35%*	31%	31%
Don't know	2%	1%	3%	3%	2%	2%	3%	2%	3%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

AWARENESS OF IMPARIED DRIVING EFFORTS VARY BY GEOGRAPHIC AREA AND GENDER

Overall, two thirds of respondents report they recently had read, seen or heard about alcohol-impaired driving enforcement efforts by police in the past 30 days. Both urban respondents and male respondents are more aware of these recent efforts than their counterparts. In particular, 70 percent of urban respondents report recent awareness of these efforts (versus 62 percent of rural respondents). Seventy two (72) percent of male respondents versus 62 percent of female respondents report this awareness.

Exhibit 14a

Awareness of Impaired Driving Enforcement Efforts by Detailed Subpopulations

(In the past 30 days, have you read, seen, or heard anything about alcohol-impaired driving (or drunk driving) enforcement by police?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	939	305	195	277	162	155	345	150	289
X^2 Result		Different		Inconclusive		Inconclusive		Inconclusive	
Yes	66%	75%*	65%	66%	57%	68%	71%	65%	60%
No	31%	23%	32%	32%	39%	29%	27%	35%	36%
Don't know	2%	2%	3%	1%	3%	3%	2%	-	3%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Exhibit 14a Continued
Awareness of Impaired Driving Enforcement Efforts by Detailed Subpopulations
(In the past 30 days, have you read, seen, or heard anything about alcohol-impaired driving (or drunk driving) enforcement by police?)

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	939	110	390	109	330	239	66	343	291
X^2 Result		Inconclusive		Inconclusive		Inconclusive		Different	
Yes	66%	71%	70%	69%	61%	65%	69%	75%*	59%
No	31%	28%	28%	31%	37%	35%	28%	23%	38%*
Don't know	2%	1%	3%	-	3%	0%	3%	2%	3%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

AWARENESS BY GENDER VARIES IN URBAN AREAS AND IN THE 35 AND OLDER AGE GROUP

Males in urban areas and males 35 and over are significantly more likely to indicate awareness of recent drunk driving enforcement by police. Specifically, 75 percent of urban males indicate this awareness versus 65 percent of urban females. And 75 percent of males 35 and over are more aware of these efforts versus 59 percent of females 35 and over.

There are no other statistically significant differences when examining responses across other detailed subpopulations.

Exhibit 15
Sources of Impaired Driving Enforcement Awareness
(Where did you see or hear these messages?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	620	152	468	348	272	405	215	208	412
X^2 Result		n/a		n/a		n/a		n/a	
TV	49%	52%	48%	43%	58%*	51%	46%	52%	47%
Radio	20%	22%	20%	17%	26%*	22%	18%	27%	18%
Friend/Relative	2%	3%	1%	2%	1%	2%	1%	3%	1%
Newspaper	12%	9%	13%	8%	20%*	11%	14%	6%	15%*
Billboard/signs	16%	13%	16%	19%	11%	16%	16%	18%	15%
Personal observation/on the road	7%	12%	7%	9%*	4%	9%	5%	10%	6%
Electronic Road Signs	25%	29%	24%	36%*	7%	24%	26%	22%	26%
Facebook	0%	-	0%	1%	-	-	1%	-	1%
Twins	-	-	-	-	-	-	-	-	-
Timberwolves	0%	-	0%	-	1%	0%	-	-	0%
Other	2%	2%	2%	1%	3%	2%	2%	2%	2%
Don't know	1%	2%	1%	0%	2%	1%	1%	1%	1%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Note: This question was only asked to respondents who had seen such enforcement efforts (n=620).

TV, ELECTRONIC ROAD SIGNS, AND RADIO ARE COMMON SOURCES OF IMPAIRED DRIVING MESSAGES

Half of respondents, overall, indicate seeing impaired driving messages on TV. One quarter report seeing these messages on electronic road signs, and another 20 percent of respondents indicate they heard these messages on radio.

Most differences in message source are observed by geographic region. Specifically, respondents in rural areas are more likely than urban respondents to see or hear messages on traditional media including TV, radio and newspaper. Urban respondents are more much more likely to see impaired driving messages on electronic road signs.

Exhibit 15a
Sources of Impaired Driving Enforcement Awareness by Detailed Subpopulations
(Where did you see or hear these messages?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	620	224	124	181	91	109	239	99	173
X^2 Result		n/a		n/a		n/a		n/a	
TV	49%	48%	37%	55%	61%	47%	41%	60%	57%
Radio	20%	15%	19%	34%*	17%	29%*	12%	23%	28%
Friend/Relative	2%	2%	2%	2%	-	4%	1%	3%	0%
Newspaper	12%	5%	11%	20%	19%	1%	11%*	14%	22%
Billboard/signs	16%	20%	18%	9%	14%	17%	20%	19%	8%
Personal observation/on the road	7%	13%	6%	4%	3%	12%	8%	8%	2%
Electronic Road Signs	25%	35%	36%	7%	8%	34%	37%	3%	9%
Facebook	0%	-	1%	-	-	-	1%	-	-
Twins	-	-	-	-	-	-	-	-	-
Timberwolves	0%	-	-	1%	-	-	-	-	1%
Other	2%	0%	2%	4%	1%	2%	1%	2%	3%
Don't know	1%	1%	-	2%	2%	0%	1%	1%	2%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Exhibit 15a Continued
Sources of Impaired Driving Enforcement Awareness by Detailed Subpopulations
(Where did you see or hear these messages?)

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	620	78	270	74	198	162	46	243	169
X^2 Result		n/a		n/a		n/a		n/a	
TV	49%	51%	42%	53%	59%	54%	49%	50%	45%
Radio	20%	16%	17%	30%	26%	23%	30%	22%	13%
Friend/Relative	2%	1%	2%	7%	0%	3%	4%	1%	-
Newspaper	12%	1%	9%	22%	19%	7%	4%	12%	19%
Billboard/signs	16%	10%	20%	18%	10%	12%	23%	17%	13%
Personal observation/on the road	7%	17%	8%	4%	3%	15%	6%	7%	5%
Electronic Road Signs	25%	42%	35%	7%	7%	27%	17%	23%	30%
Facebook	0%	-	1%	-	-	-	-	-	1%
Twins	-	-	-	-	-	-	-	-	-
Timberwolves	0%	-	-	-	1%	-	-	1%	-
Other	2%	-	1%	6%	2%	2%	3%	2%	1%
Don't know	1%	1%	0%	2%	2%	1%	-	1%	1%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Note: This question was only asked to respondents who had seen such enforcement efforts (n=620).

RADIO IS A MORE LIKELY SOURCE FOR RURAL MALES AND YOUNG URBAN RESPONDENTS

As noted in Exhibit 15, rural respondents are one group more likely to hear impaired driving enforcement messages on the radio. Rural males, in particular, are twice as likely (34 percent versus 17 percent) as rural females to have heard this kind of message on the radio.

In urban areas, respondents under 35 years of age are more likely to have heard messages via radio versus their older counterparts.

Exhibit 16

Personal Experience with Increased Impaired Driving Enforcement Areas

(In the past 30 days, did you personally drive past, or drive through, an area of increased police enforcement set up to catch drivers who were driving while under the influence of alcohol or driving drunk?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
X^2 Result		Inconclusive		Different		Inconclusive		Different	
Yes	25%	34%	24%	30%*	17%	24%	26%	32%*	22%
No	68%	60%	69%	61%	77%*	69%	67%	58%	72%*
Don't know	7%	7%	7%	9%	6%	8%	7%	10%	6%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

URBAN RESPONDENTS AND YOUNGER RESPONDENTS ARE MORE LIKELY TO HAVE PERSONALLY OBSERVED AN AREA OF INCREASED ENFORCEMENT

Twenty five (25) percent of statewide respondents indicate they have personally observed increased police enforcement in the past 30 days. Urban respondents are almost twice as likely as rural respondents to report personal experience with areas of increased police enforcement, by a margin of 30 percent versus 17 percent respectively. Similarly, younger respondents (under age 35) are more likely to report this experience than those 35 and older (32 percent versus 22 percent).

Statistical differences between young unmarried males and all other respondents, as well as by gender, are not observed.

Exhibit 16a

Personal Experience with Increased Impaired Driving Enforcement Areas by Detailed Subpopulations

(In the past 30 days, did you personally drive past, or drive through, an area of increased police enforcement set up to catch drivers who were driving while under the influence of alcohol or driving drunk?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	939	305	195	277	162	155	345	150	289
X^2 Result		Inconclusive		Inconclusive		Inconclusive		Different	
Yes	25%	30%	31%	15%	19%	35%	28%	27%*	13%
No	68%	61%	61%	80%	75%	54%	64%	65%	82%*
Don't know	7%	9%	8%	5%	6%	11%	7%	8%	5%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Exhibit 16a Continued

Personal Experience with Increased Impaired Driving Enforcement Areas by Detailed Subpopulations

(In the past 30 days, did you personally drive past, or drive through, an area of increased police enforcement set up to catch drivers who were driving while under the influence of alcohol or driving drunk?)

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	939	110	390	109	330	239	66	343	291
X^2 Result		Inconclusive		Inconclusive		Different		Inconclusive	
Yes	25%	42%	29%	21%	17%	25%	39%	23%	21%
No	68%	52%	62%	72%	78%	66%	50%	70%	74%
Don't know	7%	6%	9%	7%	5%	9%	11%	7%	5%

A COUPLE "UNDER AGE 35" SUBPOPULATIONS ARE STATISTICALLY MORE LIKELY TO WITNESS AN AREA OF INCREASED POLICE ENFORCEMENT

Rural respondents under the age of 35, and females under 35, are more likely to report noticing increased enforcement for drunk driving in the past 30 days. Those rural respondents under 35 are comparable to the overall population in their incidence of witnessing these efforts, while rural respondents over 35 are just half as likely to witness these. On the other hand, females under 35 years of age are statistically more likely than males the same age to observe increased drunk driving enforcement.

No group of young unmarried males examined was statistically different, although urban young unmarried males appear to be somewhat more likely overall to notice these increased enforcement efforts in the past 30 days.

Exhibit 17
Awareness of Ignition Interlock Law
(Are you aware of the Minnesota Ignition Interlock law?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
X^2 Result		Inconclusive		Inconclusive		Different		Different	
Yes	33%	33%	33%	35%	31%	41%*	25%	23%	38%*
No	65%	64%	65%	64%	67%	57%	73%*	76%*	61%
Don't know	2%	3%	1%	2%	1%	2%	2%	1%	2%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

ONE-THIRD OF RESPONDENTS OVERALL ARE AWARE OF THE IGNITION INTERLOCK LAW, AND MALES AND OLDER RESPONDENTS ARE PARTICULARLY MORE LIKELY TO BE AWARE

One third of respondents overall are aware of the State's Ignition Interlock Law. Males are statistically more likely than females to be aware (41 percent versus 25 percent) of this law. Also, respondents ages 35 and over are statistically more likely than younger respondents to be aware of this law.

Exhibit 17a
Awareness of Ignition Interlock Law by Detailed Subpopulations
(Are you aware of the Minnesota Ignition Interlock law?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	939	305	195	277	162	155	345	150	289
X^2 Result		Different		Different		Different		Different	
Yes	33%	40%*	29%	43%*	20%	28%	38%	16%	37%*
No	65%	58%	68%	55%	79%*	72%	60%	82%*	62%
Don't know	2%	1%	2%	2%	1%	1%	2%	2%	1%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Exhibit 17a Continued
Awareness of Ignition Interlock Law by Detailed Subpopulations
(Are you aware of the Minnesota Ignition Interlock law?)

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	939	110	390	109	330	239	66	343	291
X^2 Result		Inconclusive		Inconclusive		Different		Different	
Yes	33%	30%	35%	37%	31%	28%	18%	47%*	28%
No	65%	68%	63%	57%	68%	69%	82%	51%	69%*
Don't know	2%	2%	2%	5%	1%	2%	-	1%	2%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

SEVERAL MALE SUBPOPULATIONS ARE STATISTICALLY MORE LIKELY TO BE AWARE OF THE IGNITION INTERLOCK LAW

Male subpopulations, both urban and rural, and both younger and older, are all more likely than their female counterparts to be aware of the ignition interlock law. Statistically significant differences are observed in all of these comparisons except when comparing younger (i.e. under 35) gender populations.

Differences by age group across geographic areas are also observed. Both urban and rural older respondents (i.e. 35 and over) are statistically different from urban and rural younger respondents, respectively, in that they are more likely to be aware of the ignition interlock law.

SECTION 4: ADDITIONAL ANALYSES

GENERAL TRAFFIC SAFETY SLOGAN AWARENESS

Exhibit 18
Awareness of Traffic Safety Slogans
(Do you recall hearing or seeing the following slogans in the past 30 days?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
X^2 Result		n/a		n/a		n/a		n/a	
Friends don't let friends drive drunk	63%	57%	63%	58%	69%*	60%	66%	63%	63%
Click It or Ticket	74%	82%	73%	69%	82%*	78%	71%	84%*	70%
Drive Sober or Get Pulled Over	42%	36%	43%	42%	42%	42%	42%	44%	41%
Buckle Up America	30%	23%	31%	30%	30%	30%	30%	26%	32%
Safe & Sober	51%	48%	51%	42%	63%*	54%	48%	46%	53%
Look Twice for Motorcycyclists	52%	47%	52%	54%	49%	52%	51%	51%	52%
You drink and drive, you lose	52%	47%	52%	48%	57%*	55%	49%	48%	53%
Toward Zero Deaths	14%	20%	14%	12%	18%	19%*	10%	16%	13%
None of the above	6%	8%	5%	8%*	3%	8%	4%	5%	6%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

"CLICK IT OR TICKET" HAS THE MOST RECALL IN THE PAST 30 DAYS

About three quarters of respondents recall hearing or seeing the Click It or Ticket slogan in the past 30 days. Rural respondents and younger respondents under age 35 are particularly likely to indicate hearing or seeing this slogan in the past 30 days.

Otherwise, the largest differences in awareness are observed between respondents in urban versus rural areas. Rural respondents, in particular, are statistically more likely than urban respondents to indicate seeing or hearing several drinking and driving related slogans in addition to Click It or Ticket, including: Friends Don't Let Friends Drive Drunk; Safe and Sober; and You Drink and Drive, You Lose.

Exhibit 18a
Awareness of Traffic Safety Slogans by Detailed Subpopulations
(Do you recall hearing or seeing the following slogans in the past 30 days?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	939	305	195	277	162	155	345	150	289
X^2 Result		n/a		n/a		n/a		n/a	
Friends don't let friends drive drunk	63%	52%	64%*	70%	68%	60%	58%	67%	70%
Click It or Ticket	74%	72%	66%	85%	78%	86%*	62%	81%	82%
Drive Sober or Get Pulled Over	42%	41%	44%	44%	39%	45%	41%	44%	41%
Buckle Up America	30%	31%	29%	29%	32%	26%	32%	27%	32%
Safe & Sober	51%	44%	40%	69%	58%	38%	44%	60%	65%
Look Twice for Motorcyclists	52%	50%	58%	56%*	42%	56%	53%	44%	50%
You drink and drive, you lose	52%	50%	46%	61%	52%	46%	49%	52%	59%
Toward Zero Deaths	14%	16%*	8%	23%*	13%	17%	9%	15%	19%
None of the above	6%	11%*	4%	3%	3%	6%	8%	3%	3%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Exhibit 18a Continued
Awareness of Traffic Safety Slogans by Detailed Subpopulations
(Do you recall hearing or seeing the following slogans in the past 30 days?)

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	939	110	390	109	330	239	66	343	291
X^2 Result		n/a		n/a		n/a		n/a	
Friends don't let friends drive drunk	63%	52%	59%	66%	69%	57%	69%	61%	64%
Click It or Ticket	74%	81%	68%	83%	81%	82%	85%	76%*	65%
Drive Sober or Get Pulled Over	42%	34%	43%	40%	42%	37%	51%	44%	38%
Buckle Up America	30%	22%	31%	23%	31%	26%	27%	32%	32%
Safe & Sober	51%	41%	42%	59%	64%	48%	45%	57%	49%
Look Twice for Motorcyclists	52%	46%	55%	47%	49%	46%	57%	55%	49%
You drink and drive, you lose	52%	45%	48%	50%	58%	45%	52%	59%*	47%
Toward Zero Deaths	14%	18%	11%	23%	17%	19%	13%	19%*	9%
None of the above	6%	11%	7%	3%	3%	8%	2%	7%	5%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

SOME AWARENESS OF RURAL SLOGANS IS DRIVEN BY RURAL MALES

Rural males are more likely than females to indicate recalling all slogans tested with just one exception. Rural males are particularly more likely to indicate having noticed slogans including Look Twice for Motorcyclists and Toward Zero Deaths.

Otherwise, other statistically significant differences observed between subpopulation groups include those between males ages 35 and over and females ages 35 and over. Males in this age group are statistically more likely to report having heard or seen: Click It or Ticket; You Drink and Drive, You Lose; and Toward Zero Deaths. The latter is much less commonly recalled, overall, however. Overall, older males are equally or more likely than olde females to indicate recalling all slogans tested with just one exception.

Exhibit 19
Sources of Slogan Awareness
(Where have you read, seen, or heard these slogans?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	881	203	678	458	423	541	340	287	594
X^2 Result		n/a		n/a		n/a		n/a	
TV	62%	66%	61%	62%	62%	65%	58%	61%	62%
Radio	26%	28%	25%	25%	27%	32%*	20%	26%	26%
Friend/Relative	2%	2%	2%	3%	2%	2%	2%	2%	2%
Newspaper	12%	8%	12%	9%	15%	14%	10%	6%	14%*
Billboard/signs	39%	35%	39%	42%	35%	36%	41%	40%	38%
Personal observation/on the road	10%	15%	10%	11%	9%	9%	12%	13%	9%
Electronic Road Signs	12%	11%	13%	17%*	6%	10%	14%	14%	12%
Facebook	1%	1%	1%	1%	1%	0%	2%	2%	1%
Twins	1%	-	1%	0%	1%	0%	1%	1%	0%
Timberwolves	-	-	-	-	-	-	-	-	-
Other	11%	17%	11%	10%	14%	12%	11%	14%	10%
Don't know	3%	1%	3%	2%	3%	2%	3%	0%	4%*

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

TV IS THE MOST COMMON SOURCES FOR SLOGANS

TV is the most commonly recalled source for slogan messaging, and this holds true across all subpopulations examined. The second-most commonly recalled source across all subpopulation groups is billboards/signs.

The only statistically significant differences in slogan awareness observed are that males are more likely than females to hear these messages via radio, older respondents are more likely than those under 35 to see these messages via newspaper, and urban residents are more likely than rural residents to see these on electronic road signs.

Exhibit 19a
Sources of Slogan Awareness by Detailed Subpopulations
(Where have you read, seen, or heard these slogans?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	881	274	184	267	156	142	316	145	278
X^2 Result		n/a		n/a		n/a		n/a	
TV	62%	66%	58%	65%	59%	64%	61%	57%	64%
Radio	26%	29%	21%	35%*	19%	27%	24%	24%	28%
Friend/Relative	2%	2%	3%	2%	2%	2%	3%	2%	2%
Newspaper	12%	11%	8%	17%	12%	6%	11%	5%	18%
Billboard/signs	39%	39%	44%	31%	38%	40%	43%	42%	32%
Personal observation/on the road	10%	10%	13%	8%	10%	14%	10%	13%	7%
Electronic Road Signs	12%	15%	19%	4%	8%	15%	18%	12%	4%
Facebook	1%	0%	2%	0%	3%	1%	1%	3%	1%
Twins	1%	-	1%	1%	1%	1%	-	-	1%
Timberwolves	-	-	-	-	-	-	-	-	-
Other	11%	9%	10%	15%	13%	12%	8%	18%	12%
Don't know	3%	2%	3%	2%	4%	1%	3%	-	4%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Exhibit 19a Continued
Sources of Slogan Awareness by Detailed Subpopulations
(Where have you read, seen, or heard these slogans?)

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	881	98	360	105	318	222	65	319	275
X^2 Result		n/a		n/a		n/a		n/a	
TV	62%	73%	60%	56%	63%	65%	57%	66%	59%
Radio	26%	25%	25%	32%	26%	29%	22%	33%*	19%
Friend/Relative	2%	2%	3%	1%	2%	1%	3%	3%	2%
Newspaper	12%	6%	10%	12%	15%	10%	2%	15%	13%
Billboard/signs	39%	37%	42%	33%	35%	37%	44%	35%	40%
Personal observation/on the road	10%	17%	11%	13%	8%	12%	15%	8%	10%
Electronic Road Signs	12%	12%	18%	10%	6%	12%	16%	9%	14%
Facebook	1%	1%	1%	1%	1%	1%	3%	-	1%
Twins	1%	-	0%	-	1%	-	1%	1%	0%
Timberwolves	-	-	-	-	-	-	-	-	-
Other	11%	10%	10%	26%	12%	14%	15%	10%	10%
Don't know	3%	2%	3%	-	3%	1%	-	3%	5%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

RURAL MALES AND OLDER MALES ARE MORE LIKELY THAN THEIR FEMALE COUNTERPARTS TO HEAR SLOGANS ON THE RADIO

Rural males are especially likely to report hearing a slogan on the radio, with more than a third (35 percent) recalling this source versus 26 percent of respondents, overall, and just 19 percent of rural females. In addition, males 35 and over are especially likely to cite this source compared with females the same age (i.e. 33 percent versus 19 percent).

Young unmarried males in urban areas are more likely than respondents overall to cite TV as a source for slogan messaging, while young unmarried males in rural areas are less likely than others to cite TV, and more likely to cite radio.

MOTORCYCLE SAFETY CAMPAIGN AWARENESS

Exhibit 20
Awareness of Motorcycle Safety Efforts
(Have you seen or heard anything in the past 30 days about car drivers being more aware of or watching out for motorcycle riders?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
X^2 Result		Inconclusive		Inconclusive		Inconclusive		Inconclusive	
Yes	44%	41%	44%	45%	41%	42%	45%	43%	44%
No	55%	58%	54%	53%	57%	55%	54%	56%	54%
Don't know	2%	1%	2%	2%	2%	3%	1%	1%	2%

JUST UNDER HALF HAVE SEEN OR HEARD ABOUT MOTORCYCLE SAFETY EFFORTS IN THE PAST 30 DAYS

Forty four (44) percent of all respondents indicate noticing efforts in the past 30 days related to motorcycle safety. No significant difference is detected when examining results by various subpopulations, although a few differences are detected when comparing additional specific subpopulations in the following exhibit.

Exhibit 20a

Awareness of Motorcycle Safety Efforts by Detailed Subpopulations

(Have you seen or heard anything in the past 30 days about car drivers being more aware of or watching out for motorcycle riders?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	939	305	195	277	162	155	345	150	289
X^2 Result		Different		Inconclusive		Inconclusive		Inconclusive	
Yes	44%	43%	47%	40%	41%	48%	44%	36%	43%
No	55%	53%	52%	58%	56%	52%	53%	61%	56%
Don't know	2%	4%	0%	2%	2%	-	3%	3%	1%

Exhibit 20a Continued
Awareness of Motorcycle Safety Efforts by Detailed Subpopulations
(Have you seen or heard anything in the past 30 days about car drivers being more aware of or watching out for motorcycle riders?)

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	939	110	390	109	330	239	66	343	291
X^2 Result		Inconclusive		Inconclusive		Inconclusive		Different	
Yes	44%	39%	46%	43%	41%	41%	46%	42%	45%
No	55%	61%	52%	54%	58%	58%	53%	54%	54%
Don't know	2%	-	2%	3%	2%	1%	2%	4%	1%

URBAN FEMALES AND FEMALES OVER 35 ARE DIFFERENT FROM MALES IN AWARENESS OF MOTORCYCLE SAFETY

Small, yet statistically significant, differences exist between male and female groups. First, 43 percent of urban males have noticed motorcycle safety efforts versus 47 percent of urban females. Next, older females (35 and over) are slightly more likely to notice motorcycle safety efforts when compared with older males.

No other statistically significant differences exist between other detailed subpopulation groups that are compared.

Exhibit 21
Frequency of Driving while Talking on a Cell Phone
(In the past 7 days, how many times have you talked on your cell phone while driving a motor vehicle?)

	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
X^2 Result		Different		Different		Different		Different	
None	47%	34%	49%*	44%	53%	44%	51%	36%	52%*
1-4 times	28%	33%	27%	30%	24%	26%	29%	35%*	24%
5-9 times	13%	16%	13%	14%	12%	16%	11%	15%	13%
10-24 times	8%	12%	7%	9%	6%	9%	6%	8%	7%
25 times or more	3%	5%	3%	2%	4%	5%*	1%	3%	3%
Refused	1%	1%	1%	1%	2%	1%	2%	3%*	1%
Mean response	4.2	6.6	3.9	4.2	4.2	5.8	2.7	4.7	4.0

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

DIFFERENCES ACROSS SEVERAL SUBPOPULATIONS EXIST IN FREQUENCY OF TALKING ON A CELL PHONE WHILE DRIVING

Nearly half (47 percent) of statewide respondents indicate they have not talked at all on their cell phone while driving in the past seven days.

Age is a factor that is associated with talking on a cell phone while driving. Respondents under 35 are significantly more likely than respondents over 35 to talk on a cell phone while driving, especially at the frequency of 1-4 times in the past seven days. More than half of respondents over 35 indicate they have not at all talked on their cell phone while driving in the past seven days.

Young unmarried males are another group particularly more likely to report talking on a cell phone while driving in the past seven days, when they are compared with other respondent groups. Young unmarried males indicate the highest average for any subpopulation of 6.6 times in the past seven days that they have talked on their cell phone while driving.

Otherwise, in other subpopulation group comparisons, rural respondents are more likely to indicate they do not on their cell phone at all while driving versus urban respondents, and female respondents are more likely to indicate they do not talk on their cell phone at all versus males, who indicate talking a bit more frequently while driving.

Exhibit 21a
Frequency of Driving while Talking on a Cell Phone by Detailed Subpopulations
(In the past 7 days, how many times have you talked on your cell phone while driving a motor vehicle?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	939	305	195	277	162	155	345	150	289
X^2 Result		Different		Different		Inconclusive		Different	
None	47%	37%	50%*	52%	53%	36%	47%	36%	59%*
1-4 times	28%	30%	30%	20%	28%	34%	28%	36%*	19%
5-9 times	13%	17%	10%	13%	11%	16%	13%	12%	12%
10-24 times	8%	10%	7%	8%	3%	9%	9%	7%	5%
25 times or more	3%	4%*	1%	5%	2%	2%	2%	4%	4%
Refused	1%	1%	1%	1%	3%	2%	0%	4%	1%
Mean response	4.2	6.0	2.5	5.4	3.0	4.6	4.1	5.0	3.9

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Exhibit 21a Continued
Frequency of Driving while Talking on a Cell Phone by Detailed Subpopulations
(In the past 7 days, how many times have you talked on your cell phone while driving a motor vehicle?)

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	939	110	390	109	330	239	66	343	291
X^2 Result		Different		Inconclusive		Different		Different	
None	47%	25%	46%*	47%	53%	40%	32%	45%	59%*
1-4 times	28%	36%	29%	27%	24%	28%	42%	25%	24%
5-9 times	13%	20%	13%	10%	12%	16%	13%	16%	10%
10-24 times	8%	12%	8%	11%	5%	11%	6%	9%	6%
25 times or more	3%	6%	2%	3%	4%	5%	1%	5%	1%
Refused	1%	1%	1%	1%	2%	1%	6%	1%	0%
Mean response	4.2	8.2	3.7	4.0	4.3	6.3	3.0	5.5	2.6

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

SPECIFIC MALE SUBPOPULATIONS ARE MORE LIKELY TO FREQUENTLY TALK ON A CELL PHONE WHILE DRIVING

Urban males, urban young unmarried males, and males 35 and over are distinct audiences that are statistically more likely to talk on a cell phone while driving when compared with their female or "other" counterparts. Each of these male groups is statistically less likely to indicate they did *not* talk on a cell phone while driving in the past seven days.

Rural respondents under age 35 are another group that is statistically more likely than those rural respondents over 35 to talk on a cell phone while driving.

Exhibit 22
Frequency of Texting while Driving
(In the past 7 days, how many times have you composed or read a text message while driving a motor vehicle?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
X^2 Result		Different		Inconclusive		Different		Different	
None	86%	63%	89%*	86%	87%	84%	88%	73%*	92%
1-4 times	8%	18%*	7%	8%	9%	10%	7%	12%*	6%
5-9 times	3%	8%*	2%	2%	3%	3%	2%	7%*	1%
10-24 times	2%	5%	2%	2%	2%	1%	3%	5%*	1%
25 times or more	1%	3%	0%	1%	0%	2%	-	1%	1%
Refused	0%	2%	0%	1%	0%	0%	1%	2%*	-
Mean response	1.0	3.6	0.7	1.0	0.9	1.4	0.6	2.1	0.5

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

TEXTING WHILE DRIVING FREQUENCY IS MORE COMMON AMONG SOME SPECIFIC SUBPOPULATIONS, INCLUDING YOUNG UNMARRIED MALES

Eighty six (86) percent of statewide respondents indicate they had not texted while driving in the past seven days. In examining subpopulations, young unmarried males are more likely than other audiences to indicate texting while driving. While 89 percent of "all other respondents" indicate they had not texted while driving in the past seven days, only 63 percent of young unmarried males had not. Thus, young unmarried males are more likely to do so, and indicated the highest average frequency of texting (3.6 times in the past seven days) while driving among the subpopulations considered in Exhibit 22.

Younger respondents under 35 are also more likely to indicate texting while driving when compared with respondents 35 and older. The average number of times texting while driving in the last seven days for these younger respondents is 2.1, compared with .5 for older respondents.

Exhibit 22a

Frequency of Texting while Driving by Detailed Subpopulations

(In the past 7 days, how many times have you composed or read a text message while driving a motor vehicle?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	939	305	195	277	162	155	345	150	289
X^2 Result		Different		Inconclusive		Different			Different
None	86%	83%	89%	87%	87%	73%	92%*	72%	92%*
1-4 times	8%	12%*	4%	7%	11%	12%	6%	14%	7%
5-9 times	3%	2%	3%	4%	1%	7%*	0%	8%*	1%
10-24 times	2%	1%	3%	1%	2%	5%	1%	6%*	-
25 times or more	1%	2%	-	1%	-	1%	1%	1%	0%
Refused	0%	1%	1%	0%	-	3%	-	0%	-
Mean response	1.0	1.5	0.6	1.4	0.5	2.1	0.6	2.0	0.5

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Exhibit 22a Continued
Frequency of Texting while Driving by Detailed Subpopulations

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	939	110	390	109	330	239	66	343	291
X^2 Result		Different		Different		Inconclusive		Inconclusive	
None	86%	61%	89%*	67%	89%*	72%	73%	90%	94%
1-4 times	8%	22%*	6%	14%	8%	13%	12%	8%	5%
5-9 times	3%	7%	2%	10%	2%	8%	7%	1%	0%
10-24 times	2%	4%	2%	7%	1%	4%	7%	0%	1%
25 times or more	1%	4%	1%	2%	0%	2%	-	1%	-
Refused	0%	2%	1%	1%	-	1%	2%	-	-
Mean response	1.0	3.8	0.7	3.2	0.7	2.7	1.4	0.9	0.2

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

YOUNG AGE IS AN INDICATOR OF LIKELIHOOD OF TEXTING WHILE DRIVING

Young respondents under the age of 35 in both urban and rural areas, as well as young unmarried males in both urban and rural areas, are more likely to indicate texting while driving behavior in the past seven days. As seen in Exhibit 22 on the prior page, young unmarried males are the most likely of all subpopulations examined to indicate this. Otherwise, young urban respondents and young rural respondents are also each statistically more likely than their older age counterparts to indicate a higher frequency of texting while driving.

One other subpopulation statistically significant difference is observed between urban males and urban females. Urban males are more likely to indicate texting while driving, and report a higher average of this behavior than urban females (1.5 times versus .6 times).

Exhibit 23
Awareness of Texting and Driving Law
(To the best of your knowledge, does Minnesota have a law that says it is illegal to text, e-mail, or access the Web while driving?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
X^2 Result		Inconclusive		Not Different		Inconclusive		Different	
Yes	77%	85%	76%	77%	77%	78%	76%	84%*	74%
No	9%	7%	9%	9%	9%	10%	7%	8%	9%
Don't know	14%	8%	15%	14%	14%	12%	16%	8%	17%*

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

YOUNGER RESPONDENTS ARE MORE LIKELY TO KNOW ABOUT THE TEXTING AND DRIVING LAW

A strong majority of statewide respondents are aware about the Minnesota law that says it is illegal to text, email or access the Web while driving. Across demographic groups examined in Exhibit 23 above, no statistically significant differences are observed with the exception of a difference by age category. Respondents under age 35 are statistically more likely than those 35 and over to be aware of this law (84 percent versus 74 percent).

Exhibit 23a

Awareness of Texting and Driving Law by Detailed Subpopulations

(To the best of your knowledge, does Minnesota have a law that says it is illegal to text, e-mail, or access the Web while driving?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	939	305	195	277	162	155	345	150	289
X^2 Result		Inconclusive		Inconclusive		Inconclusive		Different	
Yes	77%	77%	78%	79%	74%	80%	76%	90%*	72%
No	9%	11%	6%	9%	9%	10%	8%	5%	10%
Don't know	14%	12%	16%	12%	17%	10%	16%	5%	18%*

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Exhibit 23a Continued
Awareness of Texting and Driving Law by Detailed Subpopulations
(To the best of your knowledge, does Minnesota have a law that says it is illegal to text, e-mail, or access the Web while driving?)

		Area by Young Unmarried Males				Age by Gender			
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	939	110	390	109	330	239	66	343	291
X^2 Result		Inconclusive		Inconclusive		Inconclusive		Different	
Yes	77%	83%	76%	89%	75%	80%	87%	77%	72%
No	9%	9%	9%	3%	9%	10%	6%	10%	8%
Don't know	14%	8%	15%	8%	15%	10%	7%	13%	20%

RURAL SUBPOPULATIONS AND OLDER SUBPOPULATIONS SHOW DIFFERENCES IN AWARENESS

Rural respondents under the age of 35 are more aware of the texting and driving law than rural respondents 35 and over. Ninety (90) percent of young rural respondents are familiar with the law versus 72 percent of older rural respondents.

Older (i.e. 35 and over) male respondents are also statistically likely to be more aware of the law than older female respondents, although the difference is just five percentage points (77 percent versus 72 percent).

VEHICLE CHOICES

Exhibit 24
Types of Vehicles Driven
(Is the vehicle you drive most often a car, van, motorcycle, sport utility vehicle, pickup truck, or other type of truck?)

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
X^2 Result		Inconclusive		Different		Different		Different	
Car	54%	57%	54%	59%*	47%	48%	60%*	63%*	50%
Van or minivan	9%	3%	9%	5%	13%*	8%	9%	5%	10%
Motorcycle	1%	1%	1%	1%	1%	2%	0%	1%	1%
Pickup truck	13%	16%	13%	8%	19%*	20%*	7%	10%	14%
Sport Utility Vehicle	20%	16%	20%	23%*	15%	18%	21%	17%	21%
Other truck	-	-	-	-	-	-	-	-	-
Other	1%	1%	1%	1%	1%	1%	-	1%	1%
Never drive	3%	5%	3%	3%	4%	3%	3%	4%	3%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

SLIGHTLY OVER HALF DRIVE CARS, AND SOME POPULATIONS ARE PARTICULARLY MORE LIKELY TO DRIVE THEM

Cars are the most common vehicles driven, and are driven by a majority or near majority of all respondents across all demographics. Urban residents, females, and those under age 35 are statistically more likely to drive cars. Otherwise, rural residents are statistically more likely than urban residents to drive pickup trucks and vans/minivans. Males are statistically more likely than females to drive pickups.

Exhibit 24a
Types of Vehicles Driven by Detailed Subpopulations
(Is the vehicle you drive most often a car, van, motorcycle, sport utility vehicle, pickup truck, or other type of truck?)

		Area by Gender				Area by Age			
	Statewide	Urban Males	Urban Females	Rural Males	Rural Females	Urban <35	Urban 35+	Rural <35	Rural 35+
Sample Size (n)	939	305	195	277	162	155	345	150	289
X^2 Result		Different		Different		Different		Inconclusive	
Car	54%	53%	64%*	41%	54%	67%*	55%	56%	44%
Van or minivan	9%	7%	4%	10%	16%	2%	7%	10%	14%
Motorcycle	1%	1%	0%	3%	-	0%	1%	1%	2%
Pickup truck	13%	13%*	4%	29%*	10%	6%	10%	16%	20%
Sport Utility Vehicle	20%	23%	23%	12%	18%	20%	24%	12%	16%
Other truck	-	-	-	-	-	-	-	-	-
Other	1%	1%	-	1%	-	-	1%	1%	0%
Never drive	3%	2%	4%	5%	3%	5%	2%	3%	4%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

Exhibit 24a Continued
Types of Vehicles Driven by Detailed Subpopulations
(Is the vehicle you drive most often a car, van, motorcycle, sport utility vehicle, pickup truck, or other type of truck?)

		Area by Young Unmarried Males					Age by Gender		
	Statewide	Urban Y.U.M.	Urban Others	Rural Y.U.M.	Rural Others	<35 Males	<35 Females	35+ Males	35+ Females
Sample Size (n)	939	110	390	109	330	239	66	343	291
X^2 Result		Inconclusive		Inconclusive		Different		Different	
Car	54%	61%	59%	51%	47%	53%	73%*	45%	55%
Van or minivan	9%	3%	6%	4%	14%	2%	8%	11%	9%
Motorcycle	1%	1%	1%	2%	1%	1%	-	2%	0%
Pickup truck	13%	11%	8%	24%	19%	14%	5%	22%*	7%
Sport Utility Vehicle	20%	20%	23%	10%	16%	23%*	10%	16%	25%*
Other truck	-	-	-	-	-	-	-	-	-
Other	1%	-	1%	1%	0%	1%	-	1%	-
Never drive	3%	4%	3%	7%	3%	4%	4%	3%	3%

* Indicates that this subpopulation was statistically more likely to select the response than the subpopulation it was directly compared with.

FEMALES UNDER 35 AND IN URBAN AREAS ARE HIGHLY LIKLEY TO DRIVE CARS

Statistically significant differences are observed between females and males, particularly in urban and younger age groups. Urban females are more likely (by 11 percentage points) than urban males to drive a car and younger females are 20 percentage points more likely to drive a car than younger males. Instead, younger males are much more likely to drive an SUV. Interestingly, older males (35 and over) then become statistically less likely than females in this older age category to drive an SUV.

Rural and older males are much more likely to drive a pickup truck than the general population or their female counterparts.

SECTION 5: OVERARCHING FINDINGS

In addition to the various analyses of subpopulations presented previously in this report, the research team also examined how responses to some of the survey's questions related to responses of other questions, especially those related to awareness, perceptions and behaviors. We present an overview of some of these findings below.

Some respondents are simply more likely to be aware of messaging and issues in general. Respondents who are aware of seatbelt law enforcement messaging are more likely than those who are not to be aware of the two other primary types of messaging addressed in the survey (speeding and DUI). Similarly, those who are aware of speeding enforcement messaging are more likely than those who are not to be aware of seatbelt and DUI messaging. Finally, those who are aware of DUI messaging are more likely to be aware of seatbelt messaging as well. Because of this, it is interesting to consider the entire spectrum of awareness rather than a single one of these areas individually.

Awareness	Pct
ALL	27%
SB/SP	6%
SB/DUI	12%
SP/DUI	15%
SB	6%
SP	5%
DUI	12%
NONE	17%

The table to the right illustrates the percentage of respondents who are aware of all three types of messaging, none of the three, or some combination thereof. A vast majority of respondents (83 percent) had heard of at least some types of messaging, though only roughly one in four (27 percent) were aware of all three types of messaging. Awareness is generally highest for DUI messaging (66 percent in total), while awareness for seatbelt and speeding messaging are similar (51-53 percent).

In addition to simply being more aware of the other types of messaging, respondents who are more aware of more types of messaging are also more likely to be aware of other messaging, such as motorcycle safety, the Minnesota ignition interlock law, and laws against texting and driving.

There is a very strong correlation between perceptions of the risk of getting a ticket (or arrested) for various behaviors. Similar to the above, respondents who believe that the risk of them being penalized for not wearing a seatbelt is high tend to also believe that the risk of their being penalized for speeding or diving under the influence is high as well. In other words, the perception of risk for unacceptable driving behaviors tends to be either high or low, but does not seem to vary significantly between the three types of violations.

Perceived Risk	Pct
ALL	54%
SB/SP	5%
SB/DUI	8%
SP/DUI	14%
SB	2%
SP	2%
DUI	10%
NONE	4%

The table to the right illustrates the percentage of respondents who believe they would be at least "somewhat likely" to be penalized for the three behaviors, none of the three behaviors, or some combination thereof. Roughly half (54 percent) of respondents felt that they would be at least "somewhat likely" to be penalized for all three behaviors, and very few (4 percent) felt that they would be "very

unlikely" to be penalized for any of the three behaviors. Similar to the trend seen above for awareness, more feel they would be penalized for DUI (86 percent) compared to speeding (75 percent) or seatbelt offenses (69 percent).

Those who exhibit one of the three unacceptable behaviors are more likely to also exhibit other unacceptable behaviors. Again, there is a strong correlation between those who don't wear their seatbelt and those who tend to speed. Similarly, those who drank and drove are also more likely to talk on a cell phone or text while driving. As was seen previously, some individuals are simply more risky with their behaviors, and that attitude manifests itself across the undesirable behaviors.

The table to the right illustrates the percentage of respondents who exhibit each of the three "good" behaviors. That is, people who wear their seat belt "all of the time," who "never" drive more than 5 mph over the speed limit, and who have not driven after drinking in the past 30 days. Roughly one-fourth of respondents (26 percent) exhibited good behaviors in all three categories, and an additional 52 percent exhibited good behaviors in the two areas aside from speeding. Overall, respondents are the most likely to exhibit good behaviors with regard to seat belt usage (91 percent), followed by DUI (85 percent) and speeding (29 percent).

Good Behavior	Pct
ALL	26%
SB/SP	1%
SB/DUI	52%
SP/DUI	2%
SB	12%
SP	0%
DUI	5%
NONE	1%

Behaviors are much more strongly correlated with perceived risk than with awareness of messaging. Using the information discussed above for overall awareness, the research team created a "score" for each respondent based on their responses for awareness, perception of risk, and good behavior across all three behavior categories. In other words, this score evaluated how aware a person is overall (A), how they asses risk of enforcement (R), and how well they behaved (B) in general. Using these scores, respondents are classified as having a "high" score if they are in the top one-third (roughly) of all respondents in that category.

The table to the right illustrates the results of this analysis, though readers should use caution in interpreting these raw percentages given that the scoring system is somewhat arbitrary in nature. However, this analysis is useful in that it illustrates a trend seen across the survey's results: those who perceive their risk to be higher are less likely to exhibit bad behaviors. However, the tie between awareness and behaviors is somewhat weaker. In addition, those who exhibited these behaviors were also more likely to believe in the importance of additional traffic safety laws, such as the primary seat belt law.

High Scores	Pct
A/R/B	27%
A/R	12%
A/B	11%
R/B	16%
A	10%
R	8%
B	9%
NONE	7%

There are significant demographic differences between respondents who have high awareness, perception of risk, and good behaviors. In addition to illustrating the correlation between perceived risk and behavior, this analysis was useful in identifying some key differences between respondents of various types. Not surprisingly, individuals who scored lowly in all three categories are more likely to

be young, unmarried, and male. In addition, these individuals are less likely to be non-Hispanic whites (and the opposite was true among those who scored highly in all three categories). However, what is perhaps most intriguing from this analysis is that young unmarried males make up four in five respondents who have a high level of awareness, but low levels of risk perception and behavior. In other words, many young unmarried males are aware of the various types of enforcement messaging, but this messaging does not necessarily correlate with high levels of perceived risk or good behaviors.

APPENDIX A: RESPONDENT DEMOGRAPHICS

This appendix includes tabulations of the demographic characteristics of survey respondents. These tables have *not* been weighted and, therefore, represent simple, raw tabulations of the results.

Exhibit D1
Gender

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
Male	62%	100%	50%	61%	63%	100%	-	78%	54%
Female	38%	-	50%	39%	37%	-	100%	22%	46%

Exhibit D2
Age

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
18-34	32%	100%	12%	31%	34%	41%	18%	100%	-
35-44	10%	-	13%	10%	9%	9%	11%	-	15%
45-54	15%	-	19%	16%	13%	12%	20%	-	22%
55-64	17%	-	23%	19%	15%	16%	20%	-	26%
65+	26%	-	33%	23%	28%	23%	31%	-	38%
Refused	0%	-	0%	0%	-	-	0%	-	0%
Mean response	49	25	56	49	49	46	53	25	60

Exhibit D3
Hispanic or Latino?

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
Yes	3%	4%	3%	4%	3%	3%	4%	6%	2%
No	96%	95%	97%	96%	96%	97%	96%	94%	97%
Don't know	0%	-	0%	-	0%	0%	-	-	0%
Refused	0%	0%	-	-	0%	0%	-	0%	-

Exhibit D4
Race

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
American Indian or Alaskan Native	1%	3%	1%	2%	1%	1%	2%	3%	1%
Asian	3%	4%	2%	4%	1%	3%	2%	4%	2%
Black or African American	4%	7%	3%	6%	2%	4%	4%	8%	2%
Native Hawaiian or other Pacific Islander	0%	1%	0%	0%	0%	1%	0%	1%	0%
White	88%	84%	90%	85%	92%	88%	89%	82%	91%
Other	2%	3%	2%	2%	2%	2%	3%	4%	1%
Don't know	0%	1%	0%	0%	0%	1%	-	1%	0%
Refused	2%	1%	2%	2%	2%	2%	2%	1%	2%

Exhibit D5
Marital Status

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
Never Married	33%	93%	15%	32%	34%	42%	18%	79%	10%
Married	50%	-	65%	51%	48%	46%	56%	13%	67%
Separated	1%	1%	1%	1%	1%	1%	1%	1%	1%
Divorced	9%	4%	10%	8%	10%	7%	11%	4%	11%
Widowed	6%	0%	8%	7%	6%	3%	11%	0%	9%
Living with a partner	1%	1%	1%	1%	1%	1%	1%	2%	1%
Refused	0%	-	0%	0%	0%	-	1%	-	0%

Exhibit D6
Survey Mode

		Target Group		Area		Gender		Age	
	Statewide	Y.U.M.	Others	Urban	Rural	Male	Female	<35	35+
Sample Size (n)	939	219	720	500	439	582	357	305	634
Cell Phone	49%	63%	44%	45%	53%	47%	51%	67%	40%
Landline	51%	37%	56%	55%	47%	53%	49%	33%	60%

APPENDIX B: SURVEY INSTRUMENT

[THROUGHOUT SURVEY, DO NOT READ RESPONSES UNLESS SPECIFIED OR NEEDED FOR CLARIFICATION.]

Hello, I'm _____ calling on behalf of the Minnesota Office of Traffic Safety. We are conducting a study of Minnesotans' driving habits and attitudes. The interview is voluntary and completely confidential. It only takes about 10 minutes to complete. May I begin?

S1. [CELL ONLY] **Before I continue, are you in a safe place to talk on your phone, specifically not currently driving?** [INTERVIEWER NOTE: EVEN IF THE RESPONDENT IS OK WITH TAKING THE SURVEY WHILE DRIVING, WE CANNOT CONTINUE WITH THE SURVEY.]
1. Yes – in safe place/not driving [CONTINUE]
2. No – not safe/driving [ARRANGE CALLBACK]

S2. [CELL ONLY] **Are you in a place where you can speak freely?** [INTERVIEWER NOTE: WE WANT TO ENSURE THEY CAN ANSWER HONESTLY ABOUT THESE TOPICS AND ARE NOT INFLUENCED BY OTHERS LISTENING.]
1. Yes – can speak freely [CONTINUE]
2. No – cannot speak freely [ARRANGE CALLBACK]

S3. [LANDLINE ONLY] **In order to meet our quotas, could I speak to a man in your household who is between the ages of 18 and 34?**
1. Respondent is the person
2. Other respondent comes to phone
3. Respondent is not available [ARRANGE CALLBACK]
4. No such person. "Then I can conduct the survey with anyone else age 18 or older. Are you 18 or older?"
5. Refused

S4. What county in Minnesota do you live in? [USE FOR URBAN AND RURAL QUOTAS. BLACK* BELOW ARE URBAN, BLACK WITHOUT * ARE RURAL. TERMINATE 96-99]

1 Aitkin	24 Freeborn	47 Meeker	70 Sherburne*
2 Anoka*	25 Goodhue	48 Mille Lacs	71 Sibley
3 Becker	26 Grant	49 Morrison	72 St. Louis
4 Beltrami	27 Hennepin*	50 Mower	73 Stearns
5 Benton	28 Houston	51 Murray	74 Steele
6 Big Stone	29 Hubbard	52 Nicollet	75 Stevens
7 Blue Earth	30 Isanti*	53 Nobles	76 Swift
8 Brown	31 Itasca	54 Norman	77 Todd
9 Carlton	32 Jackson	55 Olmsted	78 Traverse
10 Carver*	33 Kanabec	56 Otter Tail	79 Wabasha
11 Cass	34 Kandiyohi	57 Pennington	80 Wadena
12 Chippewa	35 Kittson	58 Pine	81 Waseca
13 Chisago*	36 Koochiching	59 Pipestone	82 Washington*
14 Clay	37 Lac qui Parle	60 Polk	83 Watonwan
15 Clearwater	38 Lake	61 Pope	84 Wilkin
16 Cook	39 Lake of the Woods	62 Ramsey*	85 Winona
17 Cottonwood	40 Le Sueur	63 Red Lake	86 Wright*
18 Crow Wing	41 Lincoln	64 Redwood	87 Yellow Medicine
19 Dakota*	42 Lyon	65 Renville	96 NOT IN MINNESOTA
20 Dodge	43 Mahnomen	66 Rice	97 OTHER
21 Douglas	44 Marshall	67 Rock	98 DON'T KNOW
22 Faribault	45 Martin	68 Roseau	99 REFUSED
23 Fillmore	46 McLeod	69 Scott*	

Q1. Is the vehicle you drive most often a car, van, motorcycle, sport utility vehicle, pickup truck, or other type of truck? [IF RESPONDENT DRIVES MORE THAN ONE VEHICLE OFTEN, ASK: "What kind of vehicle did you LAST drive?"]

1. Car
2. Van or minivan
3. Motorcycle
4. Pickup truck
5. Sport Utility Vehicle
6. Other truck
7. Other
8. Never drive

Q2. How often do you use seat belts when you drive or ride in a car, van, sport utility vehicle, or pick up? [READ RESPONSES]

1. All of the time
2. Most of the time
3. Some of the time
4. Rarely
5. Never

Q3. In the past 30 days, have you read, seen, or heard anything about seat belt law enforcement by police?
1. Yes ***(Ask Q4 if response to Q3 is Yes)***
2. No
8. Don't know

Q4. Where did you read, see, or hear that message? [CATEGORIZE RESPONSES. PROMPT WITH "ANYWHERE ELSE?" ONCE BEFORE CONTINUING.]
1. TV
2. Radio
3. Friend/Relative
4. Newspaper
5. Billboard/signs
6. Personal observation/on the road
7. Electronic Road Signs
8. Facebook
9. Twins
10. Timberwolves
11. Other (specify): _____
98. Don't know

Q5. How likely do you think you are to get a ticket if you don't wear your seat belt? [READ RESPONSES]
1. Very likely
2. Somewhat likely
3. Somewhat unlikely
4. Very unlikely

Q6. Having a "primary" seat belt law means that police are allowed to stop a vehicle if they observe a seat belt violation when no other traffic laws are being broken. How important do you think it is for the Minnesota Seat Belt Law to be Primary? [READ RESPONSES]
1. Very important
2. Fairly important
3. Just somewhat important
4. Not that important

Q7. Have you seen or heard anything in the past 30 days about car drivers being more aware of or watching out for motorcycle riders?
1. Yes
2. No
8. Don't know

Q8. On a road with a speed limit of 65 mph, how often do you drive faster than 70 mph? [READ RESPONSES]
1. Most of the time
2. Half the time
3. Rarely
4. Never
8. Don't know [DON'T READ]
9. Refused

Q9. In the past 30 days, have you read, seen or heard anything about speed enforcement by police?
1. Yes
2. No
8. Don't know

Q10. How likely do you think you are to get a ticket if you drive over the speed limit? [READ RESPONSES]
1. Highly likely
2. Somewhat likely
3. Somewhat unlikely
4. Very unlikely
8. Don't know [DON'T READ]

Q11. How far over the speed limit do you think you can drive before a police officer would stop you for speeding? [NOTE: RESPONSES SHOULD GENERALLY BE BETWEEN 1-25MPH. IF A VALUE IS GIVEN OUTSIDE THIS RANGE, CLARIFY THAT WE'RE LOOKING FOR AN AMOUNT OVER THE LIMIT – NOT THE ACTUAL SPEED BEING DRIVEN.]
_____ mph

Q12. Do you recall hearing or seeing the following slogans in the past 30 days? [ASK EACH INDIVIDUALLY.]

a Friends don't let friends drive drunk
b. Click It or Ticket
c. Drive Sober or Get Pulled Over
d. Buckle Up America
e. Safe & Sober
f. Look Twice for Motorcycyclists
g. You drink and drive, you lose
h. Toward Zero Deaths
1. Yes
2. No
8. Don't know
(Ask Q13 if any response to Q12 is Yes)

Q13. Where have you read, seen, or heard these slogans? [REPEAT THEIR ANSWERS FROM Q13 ONCE. CATEGORIZE RESPONSES. PROMPT WITH "ANYWHERE ELSE?" ONCE BEFORE CONTINUING.]
1. TV
2. Radio
3. Friend/Relative
4. Newspaper
5. Billboard/signs
6. Personal observation/on the road
7. Electronic Road Signs
8. Facebook
9. Twins
10. Timberwolves
11. Other (specify): _____
98. Don't know

Q14. During the past 7 days have you had at least one drink of any alcoholic beverage, including liquor, beer, wine or wine coolers?
1. Yes
2. No
8. Don't know
9. Refused

Q15. In the past 30 days, how many times have you driven a motor vehicle within 2 hours after drinking alcoholic beverages?
_____ [RANGE: 1-30, 99=REFUSED]

Q16. How likely do you think it is that someone will get arrested if they drive after drinking? [READ RESPONSES]
1. Very likely
2. Somewhat likely
3. Not likely
8. Don't know [DON'T READ]

Q17. Suppose you drove a motor vehicle after drinking alcohol and the amount of alcohol in your body was more than what the law allows for drivers. How likely is it that the police would stop you? [READ RESPONSES]
1. Very Likely
2. Somewhat Likely
3. Not Likely
8. Don't know [DON'T READ]

Q18. In the past 30 days, have you read, seen, or heard anything about alcohol-impaired driving (or drunk driving) enforcement by police?
1. Yes
2. No
8. Don't know

(Ask Q19 if response to Q18 is Yes)
Q19. Where did you see or hear these messages? [CATEGORIZE RESPONSES. PROMPT WITH "ANYWHERE ELSE?" ONCE BEFORE CONTINUING.]
1. TV
2. Radio
3. Friend/Relative
4. Newspaper
5. Billboard/signs
6. Personal observation/on the road
7. Electronic Road Signs
8. Facebook
9. Twins
10. Timberwolves
11. Other (specify): _____
98. Don't know

Q20. In the past 30 days, did you personally drive past, or drive through, an area of increased police enforcement set up to catch drivers who were driving while under the influence of alcohol or driving drunk?
1. Yes
2. No
8. Don't know

Q21. Are you aware of the Minnesota Ignition Interlock law?
1. Yes
2. No
8. Don't know

Q22. In the past 7 days, how many times have you talked on your cell phone while driving a motor vehicle?
_____ times [99=REFUSED]

Q23. In the past 7 days, how many times have you composed or read a text message while driving a motor vehicle?
_____ times [99=REFUSED]

Q24. To the best of your knowledge, does Minnesota have a law that says it is illegal to text, e-mail, or access the Web while driving?
1. Yes
2. No
8. Don't know

DEMOGRAPHICS
Q25. Are you male or female? [ASK ONLY IF NOT OBVIOUS.]
1. Male
2. Female

Q26. What is you age? _____ [99=REFUSED]

Q27. Do you consider yourself to be Hispanic or Latino?
1. Yes
2. No
8. Don't know
9. Refused

Q28. Which of the following racial categories describes you? You may select more than one. [READ RESPONSES]
1. American Indian or Alaskan Native
2. Asian
3. Black or African American
4. Native Hawaiian or other Pacific Islander
5. White
7. Other (specify): _____
8. Don't know [DON'T READ]
9. Refused

Q29. What is your current Marital Status?
1. Never Married
2. Married
3. Separated
4. Divorced
5. Widowed
6. Living with a partner
9. Refused

Q30. [CELL ONLY] **Which of the following best describes your personal telephone status?** [READ LIST]
1. I only have a cell phone and no landline.
2. I have a landline, but mostly use my cell phone.
3. I use my cell phone and landline equally.
4. I mostly use a landline, though I have a cell phone.

Q31. [LANDLINE ONLY] **Which of the following best describes your personal telephone status?** [READ LIST]

1. I only have a landline and no cell phone.
2. I have a cell phone, but mostly use my landline.
3. I use my cell phone and landline equally.
4. I mostly use a cell phone, though I have a landline.

APPENDIX C: DETAILED WEIGHTING METHODOLOGY

SAMPLE & RESPONDENTS

Cell phone surveys were conducted without a screener for dual-users (landline and cell). In other words, dual users were not excluded from the cell sample. Other researchers have determined that screening out dual-users from the cell phone sample introduces more bias into overall results (Brick et al., 2006; Kennedy, 2007).

SELECTION PROBABILITY/COMPOSITING ESTIMATOR

Keeping dual-users from both landline and cell samples results in a selection probability for dual-users that is twice that of cell-only and landline-only users. When combining data from both samples, a composite estimator is used to down-weight the dual-users. [The weights used are based on the proportion of dual-users coming from the cell and landline samples (see Kennedy, 2007 for explanation). In the survey, 35% of the dual-users were in the cell sample, and 65% were in the landline sample. So, all single-users got a weight of 1, while dual-users from the cell sample got a weight of 0.35, and dual-users from the landline sample got a weight of 0.65.]

WEIGHTS BEFORE COMBINING CELL AND LANDLINE SAMPLES (PRE-WEIGHTS FOR TELEPHONE SERVICE)

Because of different response probabilities among single- and dual-users within each sample, we first weight each sample individually for single- and dual-users using NHIS population data. In both samples, single-users are over-represented compared to dual-users, presumably because people with only one service (cell-only or landline-only) are more likely to answer in that mode. The over-representation is more pronounced in the cell sample. Weighting is done to two categories in each sample: cell sample = cell-only + dual users; landline sample = landline-only + dual users.

COMBINING SAMPLES/INPUT WEIGHT

The pre-weight for telephone service is multiplied by the compositing estimator for each person, and the resulting weighted counts (combining samples) are the input for the next stage of weighting to demographic variables.

PRELIMINARY RAKED WEIGHTS

Weights are based on four variables: region (Urban/Rural, defined by county), gender, age (three categories: 18-34, 35-54, 55+), and telephone service in each area (rural landline-only, rural dual, rural cell-only, urban landline-only, urban dual, urban cell-only). Telephone usage (i.e., landline-only, landline-mostly, dual use, cell-mostly, cell-only) was not used as a weighting variable because it has not been found to reduce bias compared to telephone service alone (Kennedy, 2007), and it results in a larger design effect.

Population estimates for region, gender, and age were obtained from the 2010 U.S. Census, Summary File 1, P12. Population estimates for telephone service in Minnesota were obtained from National Health Statistics Reports, 2011.

Cell weighting is not possible because estimates of telephone service by region, gender, and age are not available. Therefore, a process of iterative marginal weighting (i.e., raking or RIM weighting) was used to develop weights for each respondent. Sixteen iterations were performed to allow convergence.

FINAL WEIGHTS

Final weights are calculated by multiplying the input weight by the preliminary raked weight.

REFERENCES

Kennedy, C. (2007). Evaluating the effects of screening for telephone service in dual frame RDD surveys. *Public Opinion Quarterly*, Vol. 71(5), pp. 750–771.

Brick, J. M., Dipko, S., Presser, S., Tucker, C., Yuan, Y. (2006). Nonresponse bias in a dual frame sample of cell and landline numbers. *Public Opinion Quarterly*, Vol. 70(5), pp. 780–793.

Blumberg, S.J., Luke, J.V., Ganesh, N., et al. (2011). Wireless substitution: State-level estimates from the National Health Interview Survey, January 2007–June 2010. National health statistics reports; no 39. Hyattsville, MD: National Center for Health Statistics.